

Pertanika Journal of
**SOCIAL SCIENCES
& HUMANITIES**

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PERTANIKA
J O U R N A L S

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PERTANIKA JOURNAL OF SOCIAL SCIENCES & HUMANITIES

About the Journal

Overview

Pertanika Journal of Social Sciences & Humanities is the official journal of Universiti Putra Malaysia. It is an open-access online scientific journal. It publishes original scientific outputs. It neither accepts nor commissions third party content.

Recognised internationally as the leading peer-reviewed interdisciplinary journal devoted to the publication of original papers, it serves as a forum for practical approaches to improve quality on issues pertaining to social and behavioural sciences as well as the humanities.

Pertanika Journal of Social Sciences & Humanities currently publishes 6 issues a year (*March, April, June, September, October and December*) periodical that considers for publication original articles as per its scope. The journal publishes in **English** as well as in **Bahasa Melayu** and it is open for submission by authors from all over the world.

The journal is available world-wide.

Aims and Scope

Pertanika Journal of Social Sciences & Humanities aims to develop as a pioneer journal for the social sciences with a focus on emerging issues pertaining to the social and behavioural sciences as well as the humanities. Areas relevant to the scope of the journal include Social Sciences—architecture and habitat, consumer and family economics, consumer law, education, media and communication studies, political sciences and public policy, population studies, psychology, sociology, and tourism; Humanities—arts and culture, dance, language and linguistics, literature, music, philosophy, and sports.

History

Pertanika Journal of Social Sciences & Humanities was founded in 1993 and focusses on research in social and behavioural sciences as well as the humanities and its related fields.

Vision

To publish journal of international repute.

Mission

Our goal is to bring the highest quality research to the widest possible audience.

Quality

We aim for excellence, sustained by a responsible and professional approach to journal publishing. Submissions can expect to receive a decision within 120 days. The elapsed time from submission to publication for the articles averages 180 days. We are working towards decreasing the processing time with the help of our editors and the reviewers.

Abstracting and Indexing of Pertanika

Pertanika Journal of Social Sciences & Humanities is now over 32 years old; this accumulated knowledge and experience has resulted the journal being abstracted and indexed in SCOPUS (Elsevier), Clarivate Web of Science (ESCI), EBSCO, DOAJ, Agricola, ASEAN CITATION INDEX, ISC, Microsoft Academic, Google Scholar, and MyCite.

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The abbreviation for Pertanika Journal of Social Sciences & Humanities is *Pertanika J. Soc. Sci. & Hum.*

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Pertanika policy prohibits an author from submitting the same manuscript for concurrent consideration by two or more publications. It prohibits as well publication of any manuscript that has already been published either in whole or substantial part elsewhere. It also does not permit publication of manuscript that has been published in full in proceedings.

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The author must ensure that when a manuscript is submitted to *Pertanika*, the manuscript must be an original work. The author should check the manuscript for any possible plagiarism using any programme such as Turn-It-In or any other software before submitting the manuscripts to the Editorial Office, *Pertanika* Journal Publication Section.

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Most scientific papers are prepared according to a format called IMRAD. The term represents the first letters of the words *Introduction, Materials and Methods, Results, And Discussion*. IMRAD is simply a more 'defined' version of the "IBC" (*Introduction, Body, Conclusion*) format used for all academic writing. IMRAD indicates a pattern or format rather than a complete list of headings or components of research papers; the missing parts of a paper are: *Title, Authors, Keywords, Abstract, Conclusions, References, and Acknowledgement*. Additionally, some papers include *Appendices*. For manuscripts in **Bahasa Malaysia**, the title, abstract and keywords should be written in both **English** and **Bahasa Malaysia**.

The *Introduction* explains the scope and objective of the study in the light of current knowledge on the subject; the *Materials and Methods* describes how the study was conducted; the *Results* section reports what was found in the study; and the *Discussion* section explains meaning and significance of the results and provides suggestions for future directions of research. The manuscript must be prepared according to the journal's **Instruction to Authors** (http://www.pertanika.upm.edu.my/Resources/regular_issues/Regular_Issues_Instructions_to_Authors.pdf).

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Authors who complete any submission are notified with an acknowledgement containing a manuscript ID on receipt of a manuscript, and upon the editorial decision regarding publication.

Pertanika follows a **double-blind peer -review process**. Manuscripts deemed suitable for publication are sent to reviewers. Authors are encouraged to suggest names of at least 3 potential reviewers at the time of submission of their manuscripts to *Pertanika*, but the editors will make the final selection and are not, however, bound by these suggestions.

Notification of the editorial decision is usually provided within 120 days from the receipt of manuscript. Publication of solicited manuscripts is not guaranteed. In most cases, manuscripts are accepted conditionally, pending an author's revision of the material.

As articles are double-blind reviewed, material that may identify authorship of the paper should be placed only on page 2 as described in the first-4-page format in *Pertanika*'s Instruction to Authors (http://www.pertanika.upm.edu.my/Resources/regular_issues/Regular_Issues_Instructions_to_Authors.pdf).

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In the peer review process, 2 or 3 referees independently evaluate the scientific quality of the submitted manuscripts. At least 2 referee reports are required to help make a decision.

Peer reviewers are experts chosen by journal editors to provide written assessment of the **strengths** and **weaknesses** of the written research, with the aim of improving the reporting of research and identifying the most appropriate and highest quality material for the journal.

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What happens to a manuscript once it is submitted to *Pertanika*? Typically, there are 7 steps to the editorial review process:

1. The journal's Chief Executive Editor and Editor-in-Chief examine the paper to determine whether it is relevance to the journal's needs in terms of novelty, impact, design, procedure, language as well as presentation and allow it to proceed to the reviewing process. If it is not appropriate, the manuscript is rejected outright and the author is informed.
2. The Chief Executive Editor sends the article-identifying information having been removed, to 2 to 3 reviewers. They are specialists in the subject matter of the article. The Chief Executive Editor requests that they complete the review within 3 weeks.

Comments to authors are about the appropriateness and adequacy of the theoretical or conceptual framework, literature review, method, results and discussion, and conclusions. Reviewers often include suggestions to strengthening the manuscript. Comments to the editor are in the nature of the significance of the work and its potential contribution to the research field.

3. The Editor-in-Chief examines the review reports and decides whether to accept or reject the manuscript, invite the authors to revise and resubmit the manuscript, or seek additional review reports. In rare instances, the manuscript is accepted with almost no revision. Almost without exception, reviewers' comments (to the authors) are forwarded to the

authors. If a revision is indicated, the editor provides guidelines to the authors to attend to the reviewers' suggestions and perhaps additional advice about revising the manuscript.

4. The authors decide whether and how to address the reviewers' comments and criticisms and the editor's concerns. The authors return a revised version of the paper to the Chief Executive Editor along with specific information describing how they have addressed the concerns of the reviewers and the editor, usually in a tabular form. The authors may also submit a rebuttal if there is a need especially when the authors disagree with certain comments provided by the reviewers.
5. The Chief Executive Editor sends the revised manuscript out for re-review. Typically, at least 1 of the original reviewers will be asked to examine the article.
6. When the reviewers have completed their work, the Editor-in-Chief examines their comments and decides whether the manuscript is ready to be published, needs another round of revisions, or should be rejected. If the decision is to accept, the Chief Executive Editor is notified.
7. The Chief Executive Editor reserves the final right to accept or reject any material for publication, if the processing of a particular manuscript is deemed not to be in compliance with the S.O.P. of *Pertanika*. An acceptance notification is sent to all the authors.

The editorial office ensures that the manuscript adheres to the correct style (in-text citations, the reference list, and tables are typical areas of concern, clarity, and grammar). The authors are asked to respond to any minor queries by the editorial office. Following these corrections, page proofs are mailed to the corresponding authors for their final approval. At this point, **only essential changes are accepted**. Finally, the manuscript appears in the pages of the journal and is posted online.

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General Enquiry
Tel. No: +603 9769 1622
E-mail:
pertanika.proceeding@upm.edu.my
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PUBLISHER

UPM Press Centre
Universiti Putra Malaysia
43400 UPM Serdang
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Tel: +603 9769 8855
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Foreword

Welcome to the sixth issue of 2025 of the *Pertanika Journal of Social Sciences and Humanities (PJSSH)*!

PJSSH is an open-access journal for studies in the field of Social Sciences and Humanities published by Universiti Putra Malaysia Press. It is independently owned and managed by the university for the benefit of the world-wide science community.

This issue contains 25 regular articles. The authors of these articles come from different countries namely Brunei, Indonesia, Malaysia, Nigeria, Saudi Arabia, and Thailand.

A regular article titled “Narrative Strategy and the Ethics of Power in the *Kresna Duta* Play: A Review of Surakarta Style Wayang Wong Performing Arts (Indonesia)” sought to investigate the narrative strategy and ethics of power in the *wayang wong* performance of the *Kresna Duta* play. The results reveal that the screenwriter (director) produced the play *Kresna Duta* based on the power of imagination, intuitive sensitivity, intellectuality, and understanding of cultural codes. The detailed information of this article is presented on page 2203.

An article entitled “Design of the CABAMath Application based on Fuzzy Delphi Method: Enhancing Mathematical Skills among Students with Autism Spectrum Disorder” explores design a creative arts-based mobile application (CABAMath) to improve mathematical skills for ASDs with level 1 severity based on DSM-IV. The findings reveal consensus on the CABAMath app’s objectives and content, including numerical abilities and understanding shapes and sizes. The instructional strategies for the app include simple games and reinforcement, as well as features for customisable skills and progress reports. Further details of the study can be found on page 2325.

Durga Prasad Samontaray and colleague investigate examines the relationship between corporate governance and the performance of financial institutions listed on the Saudi Stock Exchange from 2013 to 2022 using Tobin’s Q framework and a social science lens. This study examined governance attributes significantly shape outcomes. Notably, board size, director independence, and audit committee structure are associated with adverse effects, whereas institutional size acts

as a positive driver of performance in the Saudi financial sector. The detailed information of this article is presented on page 2549.

We anticipate that you will find the evidence presented in this issue to be intriguing, thought-provoking and useful in reaching new milestones in your own research. Please recommend the journal to your colleagues and students to make this endeavour meaningful.

All the papers published in this edition underwent Pertanika's stringent peer-review process involving a minimum of two reviewers comprising internal as well as external referees. This was to ensure that the quality of the papers justified the high ranking of the journal, which is renowned as a heavily-cited journal not only by authors and researchers in Malaysia but by those in other countries around the world as well.

We would also like to express our gratitude to all the contributors, namely the authors, reviewers, and Editorial Board Members of PJSSH, who have made this issue possible.

PJSSH is currently accepting manuscripts for upcoming issues based on original qualitative or quantitative research that opens new areas of inquiry and investigation.

Editor-in-Chief

Puvaneswaran Kunasekaran

Aplikasi Teknik Fuzzy Delphi dalam Elemen Pembangunan Sosial Remaja Delinkuen di Pusat Pemulihan Akhlak di Malaysia

**Mariam Abd Majid^{1*}, Aisyah Humairak Abdul Rahman¹, Abur Hamdi Usman¹,
Khairani Kaharuddin², Nurzatil Ismah Azizan³, Noraini Mohamad¹,
Noor Hafizah Mohd. Haridi¹, dan Zainab Ismail⁴**

¹Jabatan Dakwah dan Usuluddin, Fakulti Pengajian Peradaban Islam, Universiti Islam Selangor, Bandar Seri Putra, 43000 Kajang, Selangor, Malaysia

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³Jabatan Al-Quran dan Sunnah, Fakulti Pengajian Peradaban Islam, Universiti Islam Selangor, Bandar Seri Putra, 43000 Kajang, Selangor, Malaysia

⁴Akademik dan Jaminan Kualiti, Kolej Dar al-Hikmah, 43000 Kajang, Selangor, Malaysia

ABSTRAK

Aspek pembangunan sosial penting diberi penekanan dalam program pengukuhan jati diri remaja delinkuen di pusat pemulihan akhlak. Implikasi ketandusan kemahiran dan nilai sosial ini boleh menyumbang terhadap rasa terasing atau terpinggir bekas pelatih remaja delinkuen yang keluar dari pusat pemulihan akhlak. Artikel ini bertujuan mengenal pasti elemen-elemen yang perlu diberi keutamaan dalam pembangunan sosial remaja delinkuen di pusat pemulihan akhlak serta meneroka kaedah praktikal untuk pelaksanaan elemen-elemen yang telah dikenal pasti dalam program pemulihan sedia ada. Kajian ini menggunakan pendekatan kaedah campuran yang menggabungkan kaedah kualitatif dan kuantitatif melalui aplikasi Fuzzy Delphi, dengan skala likert 7 mata bagi

mencapai kesepakatan pakar secara lebih tepat dan sistematik. Kajian mendapati tiga elemen bagi pembangunan aspek sosial pelatih remaja delinkuen di pusat pemulihan akhlak, iaitu memberi pengiktirafan terhadap khidmat sosial yang diberikan, bimbingan aspek komunikasi (interpersonal) dan melibatkan pelatih remaja dalam khidmat sosial masyarakat, komuniti, masjid dan surau. Ketiga elemen ini mendapat konsensus pakar dengan tahap kesepakatan melebihi 75% peratus, nilai threshold kurang daripada 0.2 ($d < 0.2$) dan nilai a-cut melebihi 0.5. Pelaksanaan program pembangunan elemen sosial terhadap para pelatih remaja delinkuen

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E-mail addresses:

mariam@uis.edu.my (Mariam Abd Majid)

24pi01005@postgrad.uis.edu.my (Aisyah Humairak Abdul Rahman)

aburhamdi@uis.edu.my (Abur Hamdi Usman)

khairani@poliku.edu.my (Khairani Kaharuddin)

nurzatil@uis.edu.my (Nurzatil Ismah Azizan)

norainimohamad@uis.edu.my (Noraini Mohamad)

noorhafizah@uis.edu.my (Noor Hafizah Mohd. Haridi)

zainab@hikmah.edu.my (Zainab Ismail)

*Corresponding author

di pusat pemulihan berupaya meningkatkan keyakinan, motivasi, keupayaan komunikasi dan perasaan diterima dalam masyarakat sekali gus menjayakan usaha perubahan diri mereka ke arah masa hadapan yang lebih baik.

Kata kunci: Aplikasi teknik Fuzzy Delphi, elemen pembangunan sosial, Malaysia, pusat pemulihan akhlak, remaja delinkuen

Application of Fuzzy Delphi Technique on Social Development Elements of Juvenile Delinquents in Moral Rehabilitation Centres in Malaysia

ABSTRACT

Social development aspects are crucial in strengthening the self-identity programmes for juvenile delinquents at moral rehabilitation centres. The lack of social skills and values may contribute to the feeling of alienation or marginalization among former juvenile delinquents after leaving these centres. This article aims to identify the elements that should be prioritised in the social development of juvenile delinquents in moral rehabilitation centres and to explore practical methods for integrating these elements into existing rehabilitation programmes. This study employs a mixed-methods approach, combining qualitative and quantitative methods through the application of the Fuzzy Delphi technique, using a 7-point Likert scale to achieve expert consensus with greater accuracy and systematic precision. The findings identified three key elements for the social development of juvenile delinquents in the rehabilitation centres, recognizing the value of their social contributions, guidance on interpersonal communication skills, and engaging juvenile delinquents in social services within the community, mosques, and suraus. These three elements achieved expert consensus with an agreement level exceeding 75%, a threshold value below 0.2 ($d < 0.2$), and an a-cut value greater than 0.5. Implementing social development programmes for juvenile delinquents in rehabilitation centres can boost their confidence, motivation, communication skills, and sense of acceptance in society, thereby contributing to their personal transformation toward a better future.

Keywords: Fuzzy Delphi technique application, juvenile delinquents, Malaysia, moral rehabilitation centres, social development elements

PENDAHULUAN

Aspek pembinaan sosial merupakan komponen penting dalam pembentukan personaliti dan jati diri individu, khususnya dalam konteks masyarakat moden yang semakin kompleks dan dinamik pada abad ke-21 pada hari ini. Pembinaan sosial

melibatkan proses interaksi individu dengan pelbagai persekitaran sosial, termasuk keluarga, rakan sebaya, institusi pendidikan dan masyarakat secara keseluruhan. Kajian terkini menunjukkan bahawa interaksi sosial yang sihat serta pembelajaran nilai, norma dan budaya melalui hubungan

ini memainkan peranan kritikal dalam perkembangan diri seseorang (Willis & Neblett, 2020). Hasil penyelidikan ini memperkukuhkan pandangan bahawa pembinaan sosial yang kukuh membantu individu memahami peranan mereka dalam masyarakat, meningkatkan kemahiran komunikasi, serta memupuk empati dan toleransi terhadap orang lain (Rios, 2022).

Pembangunan sosial remaja delinkuen di pusat pemulihan akhlak di Malaysia merupakan aspek penting yang perlu dikaji kerana ia memainkan peranan kritikal dalam proses pemulihan dan reintegrasi sosial mereka. Remaja delinkuen terlibat dalam tingkah laku antisosial atau jenayah akibat pengaruh persekitaran negatif, kekurangan bimbingan dan masalah psikososial (Abd Majid et al., 2023). Dengan memahami faktor-faktor yang mempengaruhi pembangunan sosial, program intervensi yang lebih berkesan dapat dirancang bagi mengurangkan risiko pengulangan jenayah selepas mereka keluar dari pusat pemulihan (Nasir, 2023).

Selain itu, krisis identiti dan kekurangan nilai murni yang dihadapi oleh remaja delinkuen (Appalanaidu, 2024) menuntut pendekatan pemulihan yang menekankan pembentukan identiti positif dan penanaman nilai akhlak yang baik. Isu kesejahteraan mental dan emosi juga tidak boleh diabaikan kerana ramai daripada mereka mengalami kemurungan, kegelisahan dan trauma. Justeru, sokongan program pemulihan yang menyeluruh adalah asas kepada pembangunan sosial yang sihat (Rasskazova et al., 2019). Dalam masa yang sama, pengaruh keluarga dan komuniti sangat penting dalam memperkukuh proses

pemulihan, iaitu menerusi hubungan kekeluargaan dan sokongan komuniti yang dapat menjadi pendorong utama perubahan positif (Kurock et al., 2022).

Hasil kajian ini diharapkan dapat memberi input berharga dalam merangka dasar dan polisi sosial yang lebih efektif, memperbaiki sistem pemulihan, serta memperkukuhkan pembangunan modal insan remaja sebagai aset negara pada masa depan (Abd Majid et al., 2025). Pendekatan ini juga selari dengan prinsip keadilan sosial yang menekankan bahawa setiap remaja wajar diberikan peluang kedua untuk memperbaiki diri dan membina kehidupan yang lebih bermakna (Rothchild, 1996). Memahami dan memperbaiki aspek pembangunan sosial remaja delinkuen bukan sahaja memberi manfaat kepada individu tersebut, tetapi turut menyumbang kepada pembentukan masyarakat yang lebih harmoni dan sejahtera.

Sehubungan itu, artikel ini bertujuan mengemukakan elemen-elemen pembangunan sosial yang perlu diberi keutamaan dalam kalangan pelatih remaja di pusat pemulihan akhlak melalui pendekatan kuantitatif menggunakan Teknik Fuzzy Delphi yang diaplikasikan dengan skala Likert tujuh mata bagi mencapai kesepakatan pakar secara sistematik. Penyelidikan ini berhasrat memberikan sumbangan signifikan kepada pemahaman dan pelaksanaan program pemulihan sosial remaja delinkuen di Malaysia.

Secara khusus, kajian ini ingin menjawab persoalan utama iaitu: pertama, apakah elemen-elemen kritikal yang perlu diberi keutamaan dalam pembangunan sosial remaja delinkuen di pusat pemulihan

akhlak; dan kedua, bagaimana elemen-elemen ini dapat diintegrasikan secara praktikal ke dalam program pemulihan sedia ada menggunakan pendekatan berasaskan konsensus pakar.

SOROTAN LITERATUR

Pembangunan aspek sosial dalam kalangan remaja delinkuen menjadi keutamaan dalam usaha pemulihan mereka kerana berperanan penting dalam membentuk keupayaan menyesuaikan diri dalam masyarakat.

Aspek pengiktirafan atas khidmat sosial yang diberikan kepada remaja delinkuen turut menjadi faktor penting dalam pembinaan identiti diri dan pemulihan sosial. Aktiviti sosial terarah seperti latihan kepimpinan, penyertaan dalam program kemahiran hidup, dan penglibatan dalam projek komuniti terbukti signifikan bagi meningkatkan harga diri, motivasi, serta perasaan dihargai dalam kalangan remaja berisiko (Schaeffer et al., 2014; Weiss et al., 2013). Schaeffer et al. (2014) melalui kajian terhadap program vokasional untuk pesalah juvana menunjukkan penyertaan aktif dalam aktiviti bermakna memberi peluang kepada remaja membina keyakinan diri dan memperkukuh jati diri mereka. Hal ini diperkukuhkan lagi oleh Weiss et al. (2013) dalam kajian mengenai terapi multisistemik yang mendapati bahawa penglibatan dalam aktiviti kemasyarakatan membantu membentuk identiti positif dan mengukuhkan rasa tanggungjawab sosial dalam kalangan remaja.

Sebaliknya, ketiadaan pengiktirafan terhadap usaha dan sumbangan remaja

dalam khidmat sosial boleh membawa kepada kehilangan identiti dan nilai positif (Meeus, 2018; Petrova et al., 2023). Meeus (2018) melalui kajian longitudinalnya menyatakan bahawa remaja yang tidak mendapat pengiktirafan dalam pembangunan sosial lebih cenderung mengalami kekeliruan identiti serta terdedah kepada nilai-nilai negatif. Kajian Eccles dan Gootman (2002) mengukuhkan pandangan ini dengan menekankan bahawa pembangunan belia yang berkesan perlu berfokus kepada pembinaan identiti positif melalui penghargaan dan sokongan sosial. Oleh itu, dalam konteks pemulihan akhlak di Malaysia, pengiktirafan terhadap sumbangan sosial remaja perlu dirangka sebagai elemen strategik dalam program pembangunan sosial bertujuan memastikan proses integrasi semula mereka ke dalam masyarakat berjalan dengan lebih berkesan.

Komponen bimbingan aspek komunikasi remaja (interpersonal) dikenal pasti sebagai asas penting dalam membangunkan keupayaan remaja untuk membina hubungan sosial yang sihat, menyesuaikan diri dalam masyarakat, dan mengurus cabaran emosi dengan lebih berkesan. Sejajar dengan kajian Abdul Manan et al. (2013) menegaskan bahawa program pembinaan sosial yang berfokus kepada peningkatan kemahiran interpersonal, seperti terapi kelompok dan latihan peranan, mampu meningkatkan keupayaan individu berinteraksi secara lebih berkesan, seterusnya mengurangkan tingkah laku agresif dan meningkatkan kerjasama dalam kumpulan. Kajian Su et al. (2021) dan Murad et al. (2020) pula

menunjukkan bahawa kekurangan peluang untuk mengembangkan kemahiran sosial-emosional melalui program berstruktur menyebabkan peningkatan masalah tingkah laku dan kesukaran dalam membina hubungan interpersonal yang positif dalam kalangan remaja.

Menurut Domitrovich et al. (2017), program pembinaan sosial yang menyeluruh mampu meningkatkan regulasi emosi dan empati remaja, sekali gus memperkukuhkan asas kepada interaksi sosial yang sihat. Latihan komunikasi berkesan, termasuk komunikasi verbal dan bukan verbal, mendengar aktif, serta teknik penyampaian diri seperti yang disarankan oleh Kamarudin et al. (2020) menjadi kunci kepada pembentukan hubungan positif dengan rakan sebaya dan orang dewasa. Tambahan pula, kemahiran menyelesaikan konflik secara konstruktif, seperti pengantaraan dan rundingan, terbukti mengurangkan penggunaan kekerasan dalam penyelesaian perselisihan (Asalal & Abd Wahab, 2019). Kajian Wan Ismail et al. (2022) mendapati bahawa latihan empati meningkatkan keupayaan remaja memahami dan berkongsi perasaan orang lain, manakala kemahiran kerjasama melalui projek komuniti atau sukatan berkumpul membantu membina kemahiran sosial yang kukuh (Abd Majid et al., 2021). Bimbingan yang sistematik terhadap aspek komunikasi interpersonal menjadi asas kepada pembinaan jati diri remaja dan keberhasilan integrasi sosial mereka dalam masyarakat.

Penglibatan aktif remaja dalam khidmat sosial, masyarakat, komuniti, serta aktiviti

masjid dan surau merupakan komponen penting dalam pembangunan sosial dan pemulihan akhlak mereka. Menurut teori pembelajaran sosial Bandura dan Adams (1977), pembentukan tingkah laku positif dapat dicapai melalui pemerhatian dan peniruan model sosial yang sesuai. Kajian De Vries et al. (2015) dan Mathys (2017) mendapati pendekatan pembelajaran sosial melalui penglibatan aktif dalam aktiviti komuniti berjaya mengurangkan tingkah laku antisosial dan meningkatkan penyesuaian sosial dalam kalangan remaja berisiko. Sebaliknya, ketiadaan pendedahan kepada interaksi sosial yang positif meningkatkan risiko pengasingan sosial dan tingkah laku delinkuen (Farrington et al., 2017; Kirman, 2021).

Program seperti penjelajahan lasak yang diperkenalkan oleh Institut Penyelidikan Pembangunan Belia Malaysia menggabungkan cabaran fizikal dengan pembelajaran sosial dan emosi. Kajian Noh dan Zahid (2021) mendapati penyertaan dalam aktiviti seperti mendaki bukit, latihan kepimpinan dan kerja berpasukan membantu meningkatkan ketahanan mental, kemahiran komunikasi, serta kemahiran menyelesaikan konflik dalam kalangan remaja. Selari dengan kajian oleh Yaccob et al. (2020) dan Ibrahim et al. (2020) yang mendapati pendedahan kepada alam semula jadi dan projek komuniti membentuk kesedaran alam sekitar, tanggungjawab sosial dan kerja berpasukan dalam kalangan peserta.

Di samping itu, kajian oleh Sudi et al. (2021) mengukuhkan bahawa program kerohanian yang melibatkan aktiviti masjid

dan surau seperti solat berjemaah, kelas agama dan aktiviti kebajikan memberi kesan positif dalam membina nilai moral, etika dan tanggungjawab sosial remaja. Oleh itu, pendekatan pembangunan sosial yang melibatkan remaja dalam aktiviti khidmat komuniti, projek sosial, dan aktiviti keagamaan sangat penting dalam memperkukuhkan integrasi sosial dan membina jati diri yang kukuh, selaras dengan matlamat pemulihan akhlak remaja di pusat-pusat pemulihan.

Sorotan literatur kajian lepas ini mengemukakan bahawa elemen pengiktirafan sosial, bimbingan komunikasi interpersonal dan penglibatan komuniti mempengaruhi keberkesanan pembangunan sosial remaja delinkuen. Walaupun pelbagai bentuk program intervensi telah diperkenalkan dalam konteks global dan tempatan, kajian ini mendapati keperluan untuk membangunkan model bahi pembangunan sosial yang holistik dan adaptif dalam konteks institusi pemulihan akhlak di Malaysia.

Menerusi pendekatan kaedah Fuzzy Delphi, kajian ini mengenal pasti elemen-elemen penting bagi pembangunan sosial sekali gus memastikan intervensi yang dibangunkan bersifat relevan, praktikal dan efektif.

METODOLOGI

Kajian ini mengaplikasikan Kaedah Fuzzy Delphi (FDM) untuk mengenal pasti elemen pembangunan sosial remaja delinkuen di Malaysia. FDM, berasaskan Teori Set Fuzzy oleh Zadeh (1996) dan

dikembangkan oleh Murray et al. (1985), dipilih kerana keupayaannya menghasilkan konsensus pakar terhadap elemen aspek sosial dalam program pemulihan akhlak remaja delinkuen. Pendekatan ini sesuai untuk pembangunan sosial yang kompleks, melibatkan nilai budaya dan emosi yang tidak mudah diukur secara konvensional.

Penggunaan FDM dalam kajian ini diperkukuhkan oleh keberkesanan penggunaannya dalam program pemulihan remaja antarabangsa, termasuk di Amerika Syarikat, Estonia, dan Iran (Hosseini et al., 2022; Stewart & Leps, 2017; Whittaker & Pecora, 1981). Pendekatan ini memastikan dapatan yang lebih tepat berasaskan konsensus pakar dan disesuaikan dengan konteks tempatan.

Sampel Kajian

Pemilihan sampel kajian menggunakan pendekatan persampelan bertujuan, selaras dengan saranan Hasson et al. (2000) untuk kajian FDM. Walaupun terdapat perbezaan pendapat mengenai saiz sampel ideal Phillips (2000) mencadangkan 7-12 pakar, Delbecq dan Yuster (1975), dan Adler dan Ziglio (1996) menyarankan 10-15 pakar, manakala Clayton (1997) mencadangkan 5-10 pakar dengan latar belakang pelbagai. Kajian ini melibatkan 10 pakar dari pelbagai bidang berkaitan seperti pembangunan sahsiah, akhlak, psikologi remaja, dan pemulihan remaja delinkuen. Profil demografi pakar direkodkan melalui Bahagian A soal selidik dan diringkaskan dalam Jadual 1 untuk rujukan.

Jadual 1
Maklumat demografi pakar

Pakar	Jawatan	Institusi	Bidang Kepakaran
P1	Doktor Perubatan	Akademi Dr Har Alam Damai, Cheras Kuala Lumpur	Pembangunan Sahsiah
P2	Ahli Akademik	Jabatan Kluster Pendidikan dan Sains Sosial Open University Malaysia	Pembangunan Akhlak dan Remaja Delinkuen
P3	Pegawai	Bahagian Penguatkuasaan & Inspektorat Kementerian Pengajian Tinggi	Psikologi Remaja
P4	Ahli Akademik	Jabatan Dakwah dan Usuluddin Universiti Islam Selangor	Pembangunan Spiritual
P5	Ahli Akademik	Jabatan Dakwah dan Usuluddin Universiti Islam Selangor	Pembangunan Spiritual
P6	Mantan Pegawai Al Riqab Majlis Agama Islam	Majlis Agama Islam Selangor (MAIS)	Pelaksanaan Pemulihan Remaja
P7	Pengasas	Pusat Bimbingan Raudhatus Sakinah	Pelaksanaan Pemulihan Remaja
P8	Pegawai Psikologi	Sekolah Henry Gurney Telok Mas, Melaka	Psikologi Remaja
P9	Pengasas	Pusat Perlindungan dan Bimbingan Darul Wardah	Pelaksanaan Pemulihan Remaja
P10	Pengasas	Tarbiyyatul A'la Centre	Pelaksanaan Pemulihan Remaja

Pembangunan Instrumen

Instrumen soal selidik FDM dibangunkan berdasarkan sorotan literatur berkaitan pembangunan sosial remaja serta hasil temubual awal fasa analisis keperluan. Pembangunan awal ini merujuk kepada model Skulmoski et al. (2007), dan diperhalusi melalui semakan kandungan oleh pakar untuk memastikan kesahan dan kebolehpercayaan. Soal selidik menggunakan Skala Likert tujuh mata yang kemudiannya ditukarkan kepada nombor Fuzzy menggunakan prinsip Pernomboran Segitiga Fuzzy (Triangular

Fuzzy Numbers) seperti disarankan oleh Jamil dan Noh (2020). Dalam konteks ini, setiap nilai Fuzzy diwakili oleh tiga komponen: m1 (nilai minimum), m2 (nilai paling munasabah), dan m3 (nilai maksimum). Perwakilan ini sering dinyatakan dalam format (m1, m2, m3). Jadual 2 di bawah juga menunjukkan aras persetujuan dan nilai skala fuzzy.

- i. $A_{max} = 1/3 * (m1 + m2 + m3)$
- ii. $A_{max} = 1/4 * (m1 + 2m2 + m3)$
- iii. $A_{max} = 1/6 * (m1 + 4m2 + m3)$

Jadual 2
Aras persetujuan dan nilai skala Fuzzy

Aras persetujuan	Skala Fuzzy	Skala Likert
Teramat Tidak Sesuai	(0.0, 0.0, 0.1)	1
Sangat Tidak Sesuai	(0.0, 0.1, 0.3)	2
Tidak Sesuai	(0.1, 0.3, 0.5)	3
Sederhana Sesuai	(0.3, 0.5, 0.7)	4
Sesuai	(0.5, 0.7, 0.9)	5
Sangat Sesuai	(0.7, 0.9, 1.0)	6
Teramat Sesuai	(0.9, 1.0, 1.0)	7

Sumber: Mohd Jamil (2016)

Proses Pengumpulan dan Analisis Data

Pengumpulan data dilakukan melalui edaran soal selidik kepada pakar dalam sesi bengkel khas. Respon pakar dianalisis dalam beberapa langkah:

1. Pengiraan threshold (d): Nilai d dikira menggunakan formula Chen (2000) dan konsensus dicapai apabila $d \leq 0.2$.
$$d(m, n) = \sqrt[3]{\frac{1}{3}[(m-1)^2 + (m-2)^2 + (m-3)^2]}$$
2. Penentuan konsensus: Sekurang-kurangnya 75% persetujuan diperlukan, mengikut standard Chu dan Hwang (2008) serta Murry dan Hammons (1995).
3. Defuzzifikasi: Skor purata Fuzzy dikira menggunakan pendekatan α -cut ≥ 0.5 (Bodjanova, 2006).
4. Pemeringkatan elemen: Berdasarkan nilai Fuzzy tertinggi, elemen diklasifikasikan mengikut tahap keutamaan.

Pakar diminta memberikan pandangan mereka terhadap setiap item dalam instrumen

kajian. Data yang dikumpul melalui Skala Likert kemudiannya diproses menggunakan perisian Microsoft Excel, mengaplikasikan prinsip-prinsip kaedah Fuzzy Delphi (FDM) untuk analisis lanjut.

Justifikasi Penggunaan Fuzzy Delphi

Pemilihan kaedah Fuzzy Delphi dalam kajian ini berasaskan keupayaannya untuk menentukan elemen-elemen utama dalam pembangunan sosial remaja delinkuen. Kajian luar negara turut membuktikan keberkesanan kaedah ini dalam memastikan pemilihan elemen dalam pembangunan aspek sosial remaja yang lebih berfokus seperti kemahiran sosial, kesejahteraan mental dan sokongan keluarga (Bouffard et al., 2000; Burns et al., 2000; Prilleltensky & Nelson, 2000). Dalam konteks Malaysia, penggunaan kaedah FDM dalam kajian ini membolehkan penghasilan dapatan yang relevan dengan nilai budaya tempatan, sekali gus memperkukuhkan amalan pemulihan remaja delinkuen secara lebih holistik dan bersepadu di pusat pemulihan akhlak.

DAPATAN

Dapatan ini mengemukakan elemen-elemen pembangunan sosial remaja delinkuen di Malaysia yang dinilai oleh kumpulan pakar dalam fasa reka bentuk. Jadual 3 berikut adalah keputusan penilaian pakar terhadap semua elemen pembangunan sosial remaja delinkuen di Malaysia.

Jadual 3
Elemen pembangunan sosial remaja delinkuen di Malaysia

ELEMEN PEMBANGUNAN SOSIAL	
a.	Penglibatan Remaja Dalam Khidmat Sosial Masyarakat/ Komuniti/ Masjid/ Surau
b.	Memberi Pengiktirafan Atas Khidmat Sosial Yang Diberikan
c.	Bimbingan Aspek Komunikasi Remaja (Interpersonal)

Analisis menggunakan kaedah Fuzzy Delphi (FDM) mengesahkan konsensus pakar terhadap tiga elemen utama pembangunan sosial remaja delinkuen di Malaysia. Elemen-elemen ini merangkumi: 1) penglibatan remaja dalam khidmat sosial masyarakat, komuniti, masjid dan surau; 2) pengiktirafan terhadap khidmat sosial yang diberikan; dan 3) bimbingan aspek komunikasi remaja (interpersonal). Jadual 4 memaparkan indikator konsensus pakar untuk setiap elemen ini, menunjukkan persetujuan kolektif terhadap kepentingan dan kesesuaian elemen-elemen tersebut dalam konteks pembangunan sosial remaja delinkuen.

Jadual 4 menunjukkan semua elemen pembangunan sosial remaja delinkuen di Malaysia memenuhi kriteria penerimaan

yang ditetapkan. Kriteria ini merangkumi nilai threshold (d) yang tidak melebihi 0.2 dan konsensus pakar melebihi 75%. Proses *defuzzification* telah digunakan untuk menentukan kedudukan keutamaan elemen-elemen tersebut berdasarkan nilai skor fuzzy. Kesahan elemen-elemen ini diperkukuhkan lagi dengan nilai a-cut melebihi 0.5. Data diperolehi menunjukkan semua elemen mendapat kesepakatan pakar sekali gus menunjukkan kesahan elemen pembangunan sosial remaja delinkuen di Malaysia.

Konsensus pakar terhadap kesemua elemen pembangunan sosial remaja delinkuen di Malaysia membuktikan kepentingan elemen dalam pembangunan sosial remaja delinkuen di Malaysia. Kajian ini menunjukkan keperluan terhadap usaha pembangunan sosial remaja delinkuen menerusi penglibatan remaja dalam khidmat sosial masyarakat/ komuniti/ masjid/ surau, memberi pengiktirafan atas khidmat sosial yang diberikan serta bimbingan aspek komunikasi remaja (interpersonal). Jadual 5 berikutnya menunjukkan turutan kedudukan aliran keutamaan elemen bagi pembangunan sosial remaja delinkuen di Malaysia.

PERBINCANGAN

Memberi Pengiktirafan atas Khidmat Sosial yang Diberikan

Hasil dapatan kajian ini menunjukkan bahawa elemen utama dalam program pembangunan sosial remaja delinkuen di pusat pemulihan akhlak adalah dengan memberi pengiktirafan atas khidmat sosial yang diberikan. Dapatan ini sejajar dengan

Jadual 4
Analisis kaedah FDM konsensus pakar terhadap pembangunan sosial remaja delinkuen di Malaysia

Bil	Item / Elemen	Syarat Triangular Fuzzy Numbers			Syarat Fuzzy Evaluation Process			Kesepakatan Pakar	Elemen DITERIMA	Aliran/ Keutamaan
		Nilai Threshold,	Peratus Kesepakatan Kumpulan Pakar, %	m1	m2	m3	Skor Fuzzy (A)			
1	Memberi pengiktirafan atas khidmat sosial yang diberikan	0.049	100.0%	0.860	0.980	1.000	0.947	TERIMA	0.947	1
2	Bimbingan aspek komunikasi remaja (interpersonal)	0.049	100.0%	0.860	0.980	1.000	0.947	TERIMA	0.947	
3	Penglibatan remaja dalam khidmat sosial/ masyarakat/ komuniti/ masjid/ surau	0.098	90.0%	0.820	0.950	0.990	0.920	TERIMA	0.920	2

Jadual 5
Analisis kaedah FDM konsensus pakar terhadap pembangunan sosial remaja delinkuen di Malaysia

Bil	Item / Elemen	Kesepakatan Pakar		Elemen DITERIMA	Aliran/ Keutamaan
1	Memberi pengiktirafan atas khidmat sosial yang diberikan	TERIMA		0.947	1
2	Bimbingan aspek komunikasi remaja (interpersonal)	TERIMA		0.947	
3	Penglibatan remaja dalam khidmat sosial/ masyarakat/ komuniti/ masjid/ surau	TERIMA		0.920	2

kajian oleh Yaccob et al. (2020) yang mengkaji tahap kesepaduan sosial dalam kalangan belia Malaysia melalui penyertaan dalam Program Anugerah Remaja Perdana Rakan Muda (ARP). Kajian tersebut mendapati bahawa penglibatan remaja dalam komponen ARP seperti khidmat masyarakat, penjelajahan lasak, rekreasi fizikal, dan program kemahiran bukan sahaja mengukuhkan interaksi sosial dan membina nilai-nilai murni dalam diri remaja, malah pengiktirafan formal yang diberikan melalui penganugerahan sijil dan penghormatan sosial berfungsi sebagai motivasi utama kepada peserta untuk terus terlibat dalam aktiviti-aktiviti pembangunan sosial.

Pengiktirafan yang diterima dalam program ARP bertindak sebagai insentif sosial yang meningkatkan rasa harga diri, komitmen terhadap komuniti dan dorongan intrinsik untuk kekal aktif dalam aktiviti sosial. Ini membuktikan bahawa penghargaan dan pengiktirafan sosial bukan sekadar simbolik, tetapi memainkan peranan penting dalam memperkukuhkan kesepaduan sosial dan mendorong perubahan tingkah laku remaja secara positif. Dengan kata lain, melalui pengalaman diberi penghargaan atas sumbangan sosial mereka, remaja berasa dihargai dan diiktiraf oleh komuniti, seterusnya mempercepatkan proses pembangunan identiti positif dan integrasi sosial mereka.

Selain itu, dalam konteks antarabangsa, kajian Prilleltensky dan Nelson (2000) di United Kingdom turut menekankan bahawa aspek pengiktirafan sosial terhadap remaja melalui kemahiran sosial, sokongan

keluarga, dan intervensi psikososial adalah faktor penting dalam membina kesejahteraan sosial remaja. Di Amerika Syarikat pula, Bouffard et al. (2000) menunjukkan bahawa pendidikan, latihan vokasional, dan kaunseling mental memainkan peranan penting dalam intervensi sosial belia. Ini membuktikan bahawa pendekatan memberi pengiktirafan sosial terhadap usaha pembangunan remaja mempunyai asas teori dan empirikal yang kukuh merentas pelbagai budaya dan konteks antarabangsa.

Pendekatan yang menekankan penghargaan sosial ini secara langsung membantu membentuk generasi belia yang lebih berdaya tahan, bermotivasi tinggi dan berkemahiran sosial. Ini juga menunjukkan bahawa elemen pengiktirafan sosial bukan sahaja relevan di peringkat tempatan, tetapi telah diakui keberkesanannya di peringkat global dalam memperkukuh pembangunan sosial remaja secara holistik.

Bimbingan Aspek Komunikasi Remaja

Dapatan kajian turut menunjukkan bahawa bimbingan aspek komunikasi interpersonal juga merupakan elemen penting dalam pembangunan sosial remaja delinkuen di pusat pemulihan akhlak. Panel pakar sependapat bahawa kekurangan kemahiran komunikasi menjadi antara penyumbang utama kepada kegagalan remaja menjalin hubungan sosial yang sihat, sekali gus mendorong kepada salah laku sosial. Kemahiran seperti mendengar aktif, penyampaian mesej yang jelas, dan keupayaan mengurus emosi dalam interaksi sosial dikenalpasti sebagai antara

bentuk bimbingan yang diperlukan. Justeru, pelaksanaan latihan komunikasi secara berstruktur adalah perlu bagi membentuk remaja yang mampu menyesuaikan diri dalam masyarakat pasca pemulihan.

Pembentukan komunikasi interpersonal yang positif tidak boleh dipisahkan daripada pengaruh persekitaran. Imam al-Ghazali telah menegaskan bahawa akhlak yang baik dapat dibentuk melalui pergaulan dengan individu yang soleh, kerana nilai dan amalan baik akan diserap melalui interaksi sosial yang konsisten (Umaruddin, 2003). Teori Pembelajaran Sosial oleh Bandura dan Adams (1977) turut menyokong pandangan ini dengan menjelaskan bahawa tingkah laku manusia terbentuk hasil interaksi antara individu, persekitaran dan pengalaman lalu. Oleh itu, komunikasi bukan sekadar kemahiran teknikal, tetapi berkait rapat dengan pendedahan kepada persekitaran yang membina. Ini mengukuhkan dapatan kajian bahawa komunikasi interpersonal perlu dibentuk melalui pendekatan menyeluruh termasuk latihan, contoh sosial yang baik dan struktur sokongan sosial.

Berbeza dengan pendekatan di negara-negara Skandinavia yang lebih menekankan kesamarataan sosial (Lappi-Seppälä, 2008) atau pendekatan di Amerika Syarikat yang berasaskan kebebasan individu dan tanggungjawab peribadi (Feld, 2018), pembangunan sosial di Malaysia perlu mengambil kira nilai agama dan budaya kekeluargaan yang menjadi asas kepada struktur sosial tempatan. Kajian Ismail et al. (2019) mengesahkan bahawa ketiadaan komitmen sosial dan lemahnya hubungan

interpersonal dalam kalangan remaja Malaysia mendorong mereka ke arah salah laku sosial, khususnya dalam masyarakat majmuk yang kompleks. Maka, pengukuhan bimbingan komunikasi interpersonal dilihat sebagai penyelesaian proaktif dalam mendidik remaja membina jaringan sosial yang stabil.

Beberapa kajian turut menunjukkan bahawa pendekatan sokongan rakan sebaya dan terapi berkumpulan dapat membentuk kemahiran komunikasi secara efektif. O'Connor dan Waddell (2015) serta Lipsey et al. (2010) membuktikan bahawa remaja yang mengikuti sesi terapi kelompok menunjukkan peningkatan tingkah laku positif yang signifikan. Pendekatan ini memberikan ruang kepada remaja untuk berkongsi pengalaman, membina empati, serta belajar mengurus konflik sosial secara konstruktif. Weiss et al. (2013) dan Huey and Polo (2008) turut menunjukkan bahawa program berkumpulan mampu mengurangkan tingkah laku antisosial dan membina daya tindak sosial yang lebih sihat dalam kalangan remaja bermasalah.

Dari sudut teori komunikasi, Lasswell (1948) menegaskan bahawa proses komunikasi melibatkan elemen-elemen penting seperti sumber, mesej, medium, penerima dan kesan. Kegagalan dalam mana-mana komponen ini akan melemahkan keseluruhan komunikasi, dan seterusnya menjejaskan hubungan interpersonal. Oleh itu, kemahiran komunikasi bukan sekadar kemampuan untuk bercakap, tetapi satu rangkaian kompleks yang memerlukan latihan berterusan agar remaja dapat

memahami dan memberi respons dengan cara yang tepat dalam pelbagai situasi sosial.

Dalam konteks pendidikan kerja sosial, Kamarudin et al. (2020) menunjukkan bahawa kemahiran komunikasi interpersonal merupakan kompetensi asas bagi mahasiswa kerja sosial, yang akan berinteraksi dengan pelbagai latar belakang komuniti. Hartley (1993) pula mendefinisikan komunikasi interpersonal sebagai interaksi dinamik dua hala, melibatkan persepsi, nilai dan ekspresi emosi yang saling dipengaruhi. Lefevre (2017) menambah bahawa kegagalan menguasai kemahiran ini akan mengurangkan keberkesanan intervensi sosial, khususnya dalam kalangan kumpulan rentan seperti kanak-kanak dan remaja.

Kesimpulannya, dapatan ini membuktikan bahawa bimbingan komunikasi interpersonal bukan sekadar perlu diselitkan secara sampingan, tetapi harus menjadi komponen utama dalam modul pembangunan sosial remaja delinkuen. Melalui pendedahan yang sistematik, terancang dan berasaskan pengalaman kumpulan, pelatih remaja bukan sahaja dapat meningkatkan keberkesanan interaksi sosial mereka, malah dapat membina semula jati diri dan keyakinan untuk berfungsi dalam masyarakat secara lebih positif.

Penglibatan Remaja dalam Khidmat Sosial, Masyarakat, Komuniti dan Masjid/Surau

Penglibatan remaja dalam khidmat sosial, masyarakat, komuniti, masjid atau surau merupakan elemen kedua dalam turutan kedudukan keutamaan. Ulwan (2011)

berpandangan bahawa masjid adalah berfungsi sebagai pusat pendidikan rohani yang memiliki hierarki pertama dan utama dalam Islam. Beliau juga mengungkapkan bahawa “di antara faktor yang berpengaruh dalam pembentukan peribadi anak-anak adalah dari segi spiritual, intelektual mahupun fizik iaitu adalah di rumah, masjid dan sekolah” (hlm. 17). Ayat ini menjelaskan untuk membentuk dan melahirkan anak-anak yang sempurna peribadinya dari sudut spiritual, fizikal dan akal memerlukan kerjasama salah satunya rumah (ibu bapa), masjid dan sekolah.

Kajian menunjukkan bahawa program pemulihan yang menekankan pembinaan sosial melalui pendekatan berasaskan komuniti dapat membawa perubahan tingkah laku yang positif dalam kalangan pelatih. Program seperti terapi kelompok, sokongan rakan sebaya, dan sesi pembelajaran sosial yang melibatkan interaksi antara pelatih dan kakitangan pemulihan didapati berkesan dalam membantu pelatih mengubah tingkah laku negatif kepada tingkah laku yang lebih pro-sosial (Su et al., 2021). Pengalaman berkongsi cerita dan cabaran dalam kumpulan boleh meningkatkan kesedaran diri dan empati, yang penting untuk proses pemulihan.

Golongan remaja terutama yang terjebak dengan salah laku delinkuen perlu diberikan perhatian dalam usaha mendidik dan membimbing mereka dalam mencapai keredaan dan keberkatan Allah SWT. Usaha murni pihak pusat pemulihan untuk mendekatkan diri remaja dengan aktiviti kemasyarakatan adalah sangat baik dan

perlu diteruskan. Sebagai contoh, aktiviti gotong-royong membersihkan kawasan masjid dapat memupuk semangat dan kecintaan kepada rumah Allah SWT sekali gus secara tidak langsung membuatkan diri mereka sedar bahawa satu-satunya tempat yang paling indah dan dapat menenangkan jiwa daripada keserabutan tentang hal-hal duniawi apabila beribadat di rumah Allah SWT.

Kajian Tunggak et al. (2015) menekankan kepentingan penglibatan aktif remaja dalam aktiviti kokurikulum seperti program rakan muda, gerakan belia, dan kelab rekreasi sebagai platform awal pembinaan sahsiah dan kepimpinan. Mereka berpendapat bahawa penyertaan dalam aktiviti sukan dan lasak bukan sahaja meningkatkan kecergasan fizikal dan mental remaja, tetapi juga membantu mengalihkan perhatian mereka daripada aktiviti negatif seperti melepak dan hiburan berlebihan. Selari dengan pandangan ini, Ibrahim et al. (2020) mendapati bahawa program intervensi pemulihan berkesan dalam

membantu pemulihan fizikal dan mental remaja delinkuen. Dapatan ini membuktikan keperluan untuk membangunkan tingkah laku positif remaja delinkuen melalui penglibatan dalam aktiviti dan program sosial kemasyarakatan.

Penglibatan komuniti ini membuktikan bahawa pembangunan sosial remaja delinkuen tidak hanya harus bersifat intrapersonal melalui bimbingan dalaman, tetapi juga perlu diperluaskan kepada hubungan interpersonal dan sosial yang lebih inklusif. Oleh itu, walaupun elemen ini berada pada kedudukan keutamaan ketiga, ianya tetap kritikal dalam menyokong kesinambungan proses pemulihan dan integrasi sosial remaja ke dalam arus perdana masyarakat.

Rajah 1 yang dirujuk menggambarkan hubungan antara kuasa memandu (*driving power*) dan kuasa pergantungan (*dependence power*) terhadap elemen-elemen utama pembangunan sosial remaja delinkuen di pusat pemulihan akhlak. Analisis menggunakan *Fuzzy Delphi* (FDM)



Rajah 1. Pembangunan sosial remaja delinkuen di pusat pemulihan akhlak

menunjukkan bahawa sub-elemen *memberi pengiktirafan atas khidmat sosial yang diberikan dan bimbingan aspek komunikasi remaja (interpersonal)* merupakan komponen paling kritikal yang perlu diberi keutamaan oleh pihak pengurusan pusat pemulihan. Elemen-elemen ini diikuti oleh *penglibatan remaja dalam khidmat sosial, masyarakat, komuniti, masjid atau surau* sebagai komponen pelengkap dalam hierarki kepentingan program pembangunan sosial remaja delinkuen.

Dapatan kajian ini menunjukkan penekanan aspek pembangunan elemen sosial dalam pemulihan remaja delinkuen di Malaysia menerusi integrasi nilai-nilai murni dan kemahiran sosial secara lebih holistik berpotensi besar untuk diterapkan dalam dasar dan amalan sebenar. Ini termasuklah latihan kakitangan, penglibatan keluarga dan program sokongan komuniti. Di negara Norway dan Sweden, program pemulihan remaja delinkuen juga menekankan pendekatan holistik yang melibatkan keluarga dan komuniti. Program pemulihan di Norway menggunakan model "wrap-around" yang menyediakan sokongan menyeluruh termasuk kaunseling, pendidikan dan latihan vokasional (Burns et al., 2000).

Peningkatan kes kenakalan juvana dalam beberapa tahun kebelakangan ini mendorong keperluan untuk membina dasar berasaskan bukti yang lebih kukuh. Kajian Zhao (2020) membuktikan bahawa perubahan dasar yang efektif bergantung kepada penumpuan masalah sosial, tekanan politik dan bukti penyelidikan. Dalam

konteks ini, dapatan kajian ini boleh menjadi asas bagi penggubalan dasar baharu atau penambahbaikan dasar sedia ada, dengan menekankan elemen pembangunan sosial seperti kemahiran sosial, nilai murni, sokongan keluarga dan kesejahteraan mental.

Selain itu, dapatan ini boleh dimanfaatkan untuk membangunkan program pemulihan yang lebih holistik di pusat-pusat pemulihan akhlak, dengan reka bentuk modul yang merangkumi kemahiran sosial, sokongan emosi, dan aktiviti keluarga. Latihan kakitangan berkaitan teknik kaunseling, pengurusan konflik, dan pendekatan pembangunan sosial perlu diperhebatkan untuk melaksanakan modul-modul ini dengan berkesan. Penglibatan keluarga dan komuniti dalam proses pemulihan juga sangat penting, sebagaimana ditegaskan oleh Thorpe et al. (2024) dan Martinez dan Abrams (2013), melalui kaunseling keluarga, bengkel keibubapaan, serta aktiviti komuniti yang bertujuan membina semula hubungan positif remaja dengan persekitaran sosial mereka.

Dari segi pemantauan, sistem penilaian berterusan perlu diwujudkan bagi menilai keberkesanan program melalui indikator seperti perkembangan kemahiran sosial, kesejahteraan mental, dan kekuatan hubungan keluarga (Bank et al., 1991; Greenwood, 2008). Penilaian ini penting untuk membolehkan penambahbaikan program secara berterusan. Seterusnya, kerjasama antara agensi kerajaan, sektor pendidikan, NGO, dan pihak swasta perlu diperkukuhkan untuk memastikan sumber

dan kepakaran dapat digabungkan bagi melaksanakan program pemulihan secara lebih efektif (Belenko & Logan, 2003).

Dapatan kajian ini juga membuka peluang untuk diterokai melalui penyelidikan dan pembangunan (R&D) lanjutan, termasuk kajian kes, kajian longitudinal, dan perbandingan antarabangsa bagi memperkayakan pendekatan inovatif dalam pemulihan remaja, seperti penggunaan teknologi, terapi seni, dan model holistik. Kempen kesedaran awam yang berasaskan dapatan ini boleh dilancarkan bagi meningkatkan pemahaman masyarakat tentang kepentingan pembangunan sosial dalam pemulihan delinkuen, melalui platform seperti ceramah, bengkel komuniti dan media sosial (Roberts, 2004).

Secara keseluruhannya, penerapan dapatan kajian ini ke dalam dasar dan amalan berupaya memperkasa program pemulihan akhlak di Malaysia, menjadikannya lebih efektif, holistik dan berpusatkan pembangunan insan. Ini seterusnya membantu remaja delinkuen untuk pulih sepenuhnya dan berintegrasi kembali ke dalam masyarakat sebagai individu yang produktif, bermoral, dan berdaya saing.

KESIMPULAN

Kajian ini menekankan kepentingan pembangunan aspek sosial dalam membentuk jati diri pelatih remaja delinkuen di pusat pemulihan akhlak. Tiga elemen utama yang dikenal pasti iaitu pengiktirafan terhadap sumbangan remaja dalam khidmat sosial, bimbingan kemahiran komunikasi interpersonal, serta

penglibatan aktif dalam aktiviti komuniti dan keagamaan telah dibuktikan berpotensi besar dalam meningkatkan keyakinan diri, memperkukuh keupayaan komunikasi, dan memperkasa hubungan sosial remaja. Pelaksanaan elemen-elemen ini dapat memudahkan proses reintegrasi remaja ke dalam masyarakat, sekali gus mengurangkan risiko pengulangan salah laku.

Dapatan kajian ini memberikan implikasi penting kepada pelbagai pihak. Program pemulihan berfokuskan pembangunan sosial berupaya membina identiti positif, kestabilan emosi, dan meningkatkan kualiti hubungan sosial remaja delinkuen. Pihak pengurusan pusat pemulihan boleh memperkasa program sedia ada melalui perancangan intervensi yang lebih berasaskan bukti, sejajar dengan elemen yang dikenal pasti sebagai kritikal. Selain itu, dapatan ini membantu memperjelas peranan keluarga sebagai sumber sokongan utama dalam proses pemulihan, dan mendorong komuniti untuk lebih aktif dalam usaha membina persekitaran sosial yang kondusif kepada remaja yang dipulihkan.

Dalam konteks dasar awam, hasil kajian ini menyediakan asas kukuh bagi pembentukan dasar berorientasikan pembangunan sosial remaja, bukan sahaja mengurangkan kadar salah laku delinkuen, malah menyumbang kepada kesejahteraan sosial dan ekonomi negara. Penerapan aspek pembangunan elemen sosial ini berpotensi mewujudkan masyarakat yang lebih harmoni, aman, dan berdaya tahan, melalui pemerikasaan modal insan muda yang produktif.

Kajian ini memberikan sumbangan yang signifikan kepada pembinaan kerangka konseptual dalam bidang pembangunan sosial remaja delinkuen, khususnya dalam konteks Malaysia. Melalui pendekatan kaedah Fuzzy Delphi, kajian ini membangunkan satu mekanisme sistematik untuk mengenal pasti dan memprioritikan elemen pembangunan sosial berdasarkan konsensus pakar, sesuatu yang masih kurang diterokai dalam penyelidikan tempatan. Dapatan kajian mengesahkan bahawa pendekatan holistik yang mengintegrasikan pembangunan sosial, emosi, dan rohani lebih berkesan dalam proses pemulihan remaja berbanding model tradisional yang semata-mata menekankan aspek disiplin.

Selain itu, kajian ini memperkayakan kerangka konseptual sedia ada dengan menegaskan bahawa integrasi nilai budaya, agama dan sokongan komuniti dalam pembangunan sosial remaja meningkatkan keberkesanan intervensi jangka panjang. Dengan mengemukakan satu set elemen pembangunan sosial berasaskan konsensus pakar, kajian ini bukan sahaja mengisi jurang dalam literatur, malah menawarkan asas yang kukuh untuk pembentukan dasar, amalan pemulihan dan penyelidikan lanjut dalam bidang pembangunan sahsiah remaja delinkuen.

PENGHARGAAN

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Narrative Strategy and the Ethics of Power in the Kresna Duta Play: A Review of Surakarta Style Wayang Wong Performing Arts (Indonesia)

Darmoko

Javanese Literature Study Program, Department of Area Studies, Faculty of Humanities, Universitas Indonesia, Jl. Prof. Dr. Nugroho Notosusanto, Pondok Cina, Beji District, Depok City, West Java 16424, Indonesia

ABSTRACT

This study discusses the narrative strategy and ethics of power in the *wayang wong* performance of the *Kresna Duta* play. This play is oriented toward history, myth, tradition, and convention in Javanese society as a manifestation, existence, representation, and visualisation of the struggle for the values of truth and untruth. How does the scriptwriter (director) compose narrative elements to play the discourse of power in Javanese culture that are interrelated in the performance, as a problem that needs to be solved? This article aims to formulate the scriptwriter's (director's) strategy in composing narrative elements to obtain actual, relevant, logical, contextual, and quality criteria and to formulate the concept of ethics of power depicted in the play. Creswell's (2009) qualitative descriptive method is a basis for analysing all elements that build the narrative structure in performing arts and presenting them according to the reality of the production of the *Kresna Duta* play. Darmoko's (2017) narrative strategy to analyse the process of the cultural output and Anderson's theory of power in Javanese culture (1990) is supported by Suseno's (1993) concept of ethics of power to analyse the resistance

between the discourse of truth and untruth. This article concludes that the screenwriter (director) produced the play *Kresna Duta* based on the power of imagination, intuitive sensitivity, intellectuality, and understanding of cultural codes. The power of truth contained in Kresna, the existence of Pandawa, can destroy the power of untruth in Duryudana, the existence of Kurawa.

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E-mail address:

pak.darmoko@gmail.com (Darmoko)

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INTRODUCTION

Wayang Wong (hereinafter abbreviated as WW), from the perspective of performances, has developed various styles in Indonesia following the development of people's mindsets. (Darmoko, 2020). WW art in the past grew and developed in the Mangkunegaran Surakarta Duchy, which was politically under the authority of the Kasunanan Surakarta, so its presentation style refers to its parent, namely the Kasunanan Surakarta Palace (Hersapandi, 1999).

Wayang is one of Indonesia's cultural products, and it is widely spread across several islands, such as Java, Sumatra, Kalimantan, Bali, and Lombok. *Wayang* grows and develops in each region and its characteristics, patterns, and styles according to the creativity of its supporters. *Wayang* refers to a story that depicts a certain character, a certain puppet, a person who plays a certain character, and a certain form of performing arts (Darmoko, 2020).

The definition of *wayang* refers to people playing certain characters, often called *wayang wong*, which will be abbreviated as WW in the future. WW grows and develops in various performance styles. Financial and spiritual strength have helped the Surakarta style of WW performing arts receive attention and survive until now.

Hersapandi (1999) describes that WW art in the past grew and developed in the *Mangkunegaran Surakarta* Duchy, which was politically under the rule of the *Kasunanan Surakarta*, so its presentation style refers to its parent, namely the

Kasunanan Surakarta Palace. The development of art in the *Mangkunegaran* Duchy reached its distinctive form during the reign of Sri Mangkunegara VII (1916 - 1944), due to the acculturation of culture with many influences from the Yogyakarta style.

Several Surakarta-style WW art groups that have become historical records of traditional performing arts include: Ngesti Pandowo in Semarang (Central Java), Sriwedari and RRI Surakarta in Surakarta (Central Java), Bharata and Sekar Budaya Nusantara in Jakarta. Among these WW art associations, *Sekar Budaya Nusantara* is a forum for artists from various circles. It is based on the theme raised, which usually concerns objects or names of central figures, important events, and an important place or area.

Surakarta-style *Wayang Wong* performances contain at least two important elements that need to be discussed: first, storytelling strategy, and second, the ethics of power. The relationship between the two is analysed from a narrative conceptual framework. The discourse of knowledge-power between virtue and vice, by the scriptwriter and director, is always contested. In Javanese ethics, the power of goodness always wins the fight. Previous research is presented to obtain novelty and an adequate research contribution. Several studies on Surakarta-style WW dance that the author found as material for consideration highlighted several issues regarding management, growth, development, and structure.

The first study, entitled "*Wayang Orang Ngesti Pandowo* (2021-2015): Study of Performing Arts Management," was published by the Center for the Preservation of Cultural Values of the Special Region of Yogyakarta by Sujarno et al. in 2016. This study focusses on performing arts management using interview methods with famous artists, observers, and audiences. This study provides inspiration for future research that focusses on the strategies of scriptwriters or directors to manage elements in the performance to produce synergy in the presentation of the play and supporting elements in harmony.

The second study, "Easy Steps to Dance the *Wayang Orang Ngesti Pandowo* Surakarta-Style," published by the Publishing Agency of the Indonesian Institute of the Arts Yogyakarta by Supriyanti et al, focusses on the study of dance movements, especially female and male dance movements, using interview methods and literature studies, and was published in 2021. This study inspires the development of research that focusses on the strategies of scriptwriters and directors in composing narrative elements of Surakarta-style WW performances.

The third study, "The Existence of *Wayang Orang*: A Descriptive Study of the Existence of the *Sriwedari Surakarta Wayang Orang Group*, Surakarta, AntroUnairdotNet journal, Vol.IV/ No. 2/ July 2015 by Azhari. This study focusses on the growth and development of the Surakarta-style *Wayang Orang* performing arts by applying qualitative methods, namely observation and interviews. This

study inspires further research in developing strategies for scriptwriters or directors to improve audience services by building actual, relevant, logical, contextual, and quality criteria.

One of the Surakarta-style *Wayang Wong* performances that is important to discuss is the *Kresna Duta* play, abbreviated as *KD*, produced by *Sekar Budaya Nusantara*. The play contains sophisticated ethical values of power. The *KD* play is a story in the Mahabharata that describes the genealogy of the Pandawas (Pandavas in English) and Kurawas (Kauravas in English) and the great war between the two as descendants of the Bharata family. In this play, Kresna (Krishna in English) is the Pandawas' envoy on a peace mission to the Astina palace, but fails because Duryudana (Duryodhana in English) insists on defending Astina, Indraprasta, and his colonies. Kresna's failure as Pandawa's envoy led to the Bharatayuda war. This play leaves behind problems that need to be solved, namely: 1) What is the strategy of the scriptwriter or director to position the elements of verbal narrative to obtain actual, relevant, logical, contextual, and quality criteria? and 2) How are the Javanese ethics of power depicted in the narrative text produced? This article formulates the scriptwriter's strategy in composing narrative elements to obtain certain criteria, how the director places performance elements on certain criteria, and presents a new concept of the ethics of power in Javanese culture. The problems and objectives of the article are expected to be solved in this research.

MATERIALS AND METHODOLOGY

The data used as discussion material in this article is the text of the *wayang orang* performance of the *KD* play uploaded on YouTube (Kesenian Wayang Orang, 2018). The oral narratives of the *dalang* and dancers in the wayang wong performance are transcribed for access and presentation. The elements of the narrative that are transcribed are the conversation between *wayang* dancers, the narrative of *janturan* (the *dalang's* story containing a description of a place, the stories of all the characters who appear, the events of the characters, and the problems discussed), and the narrative of *pocapan* (the *dalang's* story containing a description of certain events experienced by a character, such as mental state and profile, summary of events that have happened, are happening, and will happen.)

Creswell's (2009) qualitative method was used to describe the structure of the verbal narrative text by revealing facts, phenomena, variables, and conditions that occurred and interpreting and narrating existing data on the process of compiling elements of the play and the ethics of power contained in the narrative text concerning traditional socio-cultural values and the relationship between variables in the narrative text. The aspects of the narrative text are described by paying attention to the functional relationships between the elements to express the idea of the ethical struggle between the power of truth and untruth.

The facts and phenomena of the cunning, hypocrisy, and evil of the Kurawas do not waver in the text as strong variables of the struggle against truth, justice, and virtue possessed by the Pandawas. The verbal narrative text of characterisation is a series of events in the scene, setting, time setting, and social setting. The ethics of power in Javanese culture are used as a guideline to analyse the power struggle between truth and falsehood in the narrative text of the WW performance.

The concept and workings of the narrative strategy (*Sanggit* in Javanese) have traditionally been owned by the play scriptwriter (director) as a representation of society, which then becomes a convention. *Sanggit* is a weapon for a play scriptwriter (director) to obtain characteristics and, at the same time, legitimacy from society for the play presented. (Darmoko, 2017). In the narrative strategy, the scriptwriter (director) implements creative powers to formulate ideas that will be realised in a play performance.

Darmoko (2017) gives the idea that creativity in producing performing arts is doing something with a certain method and a certain achievement target so that the overall appearance meets the criteria of actual, relevant, logical, contextual, and quality. A scriptwriter (director) and another in presenting a *wayang* play will have differences from time to time. The textual and contextual approaches prioritize elements contained in the verbal text of the performance, which are connected to factors

outside the text, such as customary values, conventions, morals, and spirituality, which are collective knowledge within a society.

Sanggit is a term usually used by Javanese cultural figures to refer to the knowledge they have to create an art object. An art object requires references from the process of contemplation and thinking related to the context of the relationship with the object being created. The scriptwriter (director) is placed in the subject who creates an object. *Sanggit* is the scriptwriter's (director's) strategy to compose elements in plays and performing arts. The creativity and innovation of plays and staging are by the scriptwriter (director) through exploring imagination based on intuitive sensitivity, intellectuality, and understanding of cultural codes. This process is carried out so that the creation and presentation of the play obtains an actual, relevant, logical, contextual, and quality presentation.

The creativity and innovation of plays and the staging of plays in the performing arts by the scriptwriter (director) are guided by the traditions and conventions of art styles oriented towards the centers of the palaces in Surakarta and Yogyakarta. The traditions and conventions of WW performing arts contain ethical and aesthetic norms that are actualised in the elements of narrative text. Ethical and aesthetic principles will result in pseudo-performance art, namely the arrangement of moral values and the beauty of puppet shows that can artistically depict conformity with social reality.

The structure of harmony and rhythm built in a puppet show is determined

by the *sanggit* and *garap* carried out by the scriptwriter (director). *Garap* is the creativity and innovation of the scriptwriter (director) to present a play on the performing arts stage to achieve certain criteria.

Understanding the power of imagination, intuitive sensitivity, intellectuality, and cultural codes as a means for the scriptwriter (director) to achieve a criterion, accompanied by a historical and religious (mythical) contextual thinking orientation, so that the art of puppetry has a solid, harmonious, and rhythmic structure. *Sanggit* drives the creativity of developing ideas related to the traditions and conventions of scriptwriters (directors). Tradition and convention provide certain characteristics, patterns, and styles. The scriptwriter (director) sends ideas in the form of messages into the narrative text of the WW performance of the KD play and hopes that the audience, as the message recipient, will get an actual, relevant, logical, contextual, and quality presentation of the play. (See Figure 1)

The theory of power discourse in Javanese culture from Anderson (1990) is applied to obtain a picture of the concept of power represented and manifested into the figure of a central figure, namely Kresna as a variable of the Pandawas and the manifestation of the god Wisnu (Vishnu in English), the guardian of the universe, as well as a symbol of truth, justice, and virtue. The power that the Javanese view is central to the main idea of Javanese politics. Power is not a theoretical assumption, but an existing reality. Power is a divine force that is intangible, mysterious, and spread

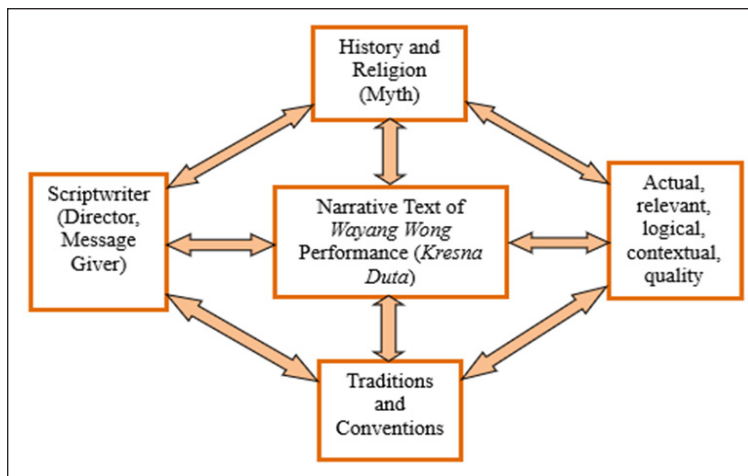


Figure 1. Narrative strategy of the play *KD*

throughout the universe. Meanwhile, the Javanese ethics of power from Suseno (1993) in this paper's study is related to resistance, negotiation, bargaining positions, and the struggle for power discourse between 'truth' and 'untruth'.

RESULTS AND DISCUSSION

This study of the *KD* play performance presents a discussion of narrative strategies in the aspects of a) characters and characterisation that function to describe the role of characters involved in the construction of ideas to realise traditional ethics of power in society; b) a series of events, which contain parts that connect one event to another which are implemented with the instrument of character actions to build and realise the idea of ethics of power; c) the setting of place, time, and social as a supporter of the narrative system to construct where, when, and how the social situation occurs to realise the idea of ethics

of power in the narrative text; d) the nature of ethics of power placed by the scriptwriter (director) in the play in the form of narrative devices and artistic expressions by referring to traditions and conventions that form conditions of confrontation between truth and untruth through narrative strategies.

Narrative Strategy in the Play *KD*

This section discusses three important things related to characters and characterisation, the series of events and scenes, the setting of the place, the setting of the time, and the setting of the social context. The application of the concept of narrative strategy in this writing was developed from Darmoko's (2017) doctoral dissertation, Universitas Indonesia.

Text analysis is based on narratology that relies on the scriptwriter and director. Art production through storytelling forms a reciprocal relationship between the scriptwriter and director and their work.

Power in the scriptwriter and director is applied to place an interest using elements in literature as a tool to achieve the desired goal. On the other hand, power in the text is stereotyped through the fight between right and left, truth and untruth. Sosič (2022: pp. 13) says that narratology is closely linked to Structuralism, the most consistent realisation of Structuralist ideas in literary studies. The manifesto is the treatise by the Structuralist and Semiotician Roland Barthes, *An Introduction to the Structural Analysis of Narrative*. In it, the sentence is established as the basic model for the structural analysis of narrative: the narrative text must be studied as a large sentence, since it also has sentence units, rules, “grammar”, verb predicates, and subjects.

The narrator's position in applying the narrative strategy method is significant because of the central concept. In the context of the discussion, the narrator is the *wayang* dancers and *dalang* who play and express certain characters. In addition, a narrator organizes and manages the elements in the performance for his narrative message. Bal (1999, pp. 19) says that the narrator is the most central concept in the analysis of narrative texts. The narrator's identity, the degree to which and how the identity is indicated in the text, and the implied choices lend the text its specific character. The narrator is a very central concept in analysing narrative texts. The identity of the narrator, the extent to which and in what way the identity is identified in the text, and the implied choices give a special character to the text.

An aspect that is also important concerning the study of the struggle of ideas in the context of power in narrative texts, besides the position of the narrator, is narrative negotiation. In narrative negotiation in the text, the relationship between powers that meet, intersect, resist, and even contradict each other is discussed. Negotiation in narrative is used as a reliable weapon by political groups or intellectual controversies in the context of knowledge. Narrative as a structure forms a context, may or may not be successful in the implementation of negotiations, as expressed by Abbott (2002, 156), that narratives are used as weapons in larger narrative contests such as trials, political races, and intellectual controversies in the form of bargaining positions whose claims may or may not be successfully negotiated. Interpretation aims to obtain meaning related to the communication of ideas and the production of thought. A narrative is not just a story, but a position that requires precision to handle. Discussions about the interpretation of narrative texts depend on the reliability of a narrator in conveying their narrative text. A narrator played by *wayang* dancers and *dalang* is variously described by scriptwriters as an instrument, a construction, and a device.

Characters and Characterisation

The emergence of Kresna in the play cannot be separated from the values of truth contained in the ethics of power, as in Javanese philosophy. In the narrative text, from the beginning of the scene, the

character of Kresna shows an important and central role and position. Kresna is talked about and narrated by his supporting characters in scene after scene. Kresna can move events from the first scene to the end.

In the first scene, the character of Kresna can move the Pandawa figures as his supporters to carry out the act of handing over power as an ambassador, so that a series of actions are formed on his journey to the Astina palace. The narrative construction is applied from the moment the *dalang* first hits the box to signal the start of the performance, and the music flows in full accompaniment to the Pandawa dance for a moment, interspersed with the *dalang*'s narration about the Udyogaparwa era, the arrival of Kresna, accompanied by Setyaki, followed by Prabu Matsyapati.

In the First scene, King Matsyapati is in front of the Pandawas of Puntadewa, Bima, Arjuna, Nakula, Sadewa, King Kresna, and Raden Setyaki. King Matsyapati explained that King Duryudana would not surrender the Astina and Indraprasta countries as a whole; therefore, he proposed that the Pandawas prepare for a major war, namely Bharatayuda. Meanwhile, Puntadewa proposed that Kresna be willing to become the Pandawas' ambassador for a peace mission. King Kresna was willing to bring a message of peace for the Pandawas to the Astina palace. Puntadewa conveyed a message from King Kresna to be willing to respect Destarata and Dewi Gendari, Bima conveyed a message to bring Dewi Kunti, his mother, and Arjuna conveyed a message for Karna to be willing to join the Pandawas.

The *KD* play is built by presenting several problems that are placed in the first scene, constructed as follows: 1) King Matsyapati said that King Duryudana would not hand over the Astina and Indraprasta countries to the Pandawas even though he had managed to escape the punishment of exile in the forest for twelve years and hiding for one year. He advises the Pandawas to prepare themselves for war; 2) Puntadewa did not like conflict but liked peace; 3) Bima wanted his mother Kunti to be brought from the Panggombakan duchy, and Arjuna wanted King Karna to be willing to join the Pandawas.

The construction of the problem is divided into three parts of the flow of events that will be passed through, all of which are driven by the central character, Kresna, based on the Pandawas and the King Matsyapati. First, Kresna builds events after gaining power as the Pandawas' ambassador; second, Kresna allows the Pandawas the opportunity to convey a message to him as an ambassador; and third, Raden Setyaki, as Kresna's charioteer, rides the Jaladara chariot and flies to the Astina palace.

In the first part, King Kresna moves on the Jaladara chariot with Raden Setyaki, then visits the Astina palace as the Pandawa ambassador, followed by the appearance of Kresna as the embodiment of lord Wisnu, he creates an illusion to teach King Duryudana a lesson. Salya comes to Kresna to discuss the Bharatayuda war, followed by the Kurawas being angry and ganging up on Kresna. Kresna transforms into a *brahala*, a tall, big, and frightening giant. God Narada

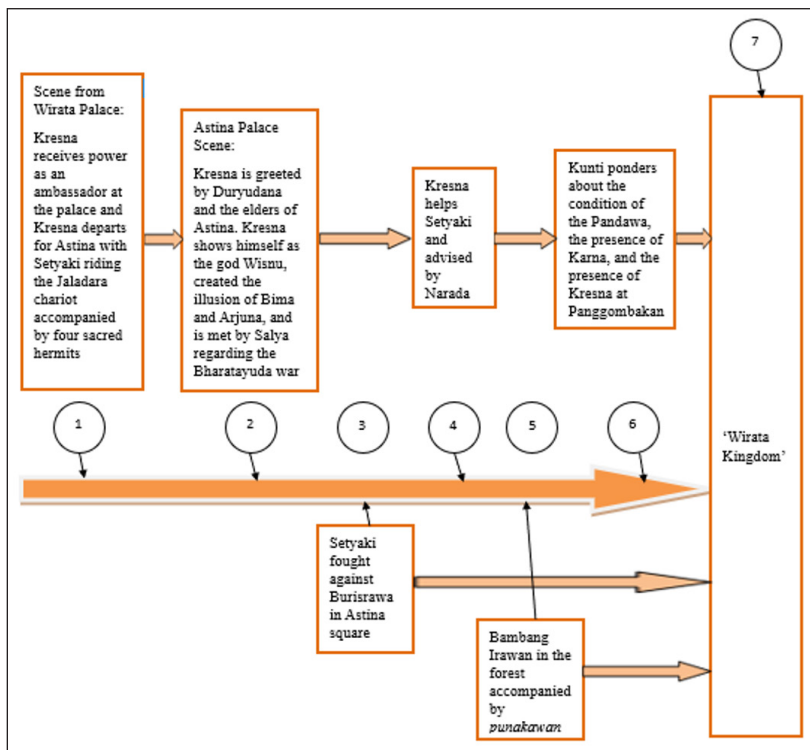


Figure 2. Narrative strategy of the Play KD based on running time

descends to calm his anger, and Kresna and Setyaki leave for Panggombakan.

In part two, Raden Setyaki is in the Astina Palace Square waiting for King Kresna. Raden Setyaki is somewhat cornered, so King Kresna has to help him. The incident continues with Kresna transforming into a *brahala*, a tall and big giant who drives away the Kurawas.

In Part Three, Raden Bambang Irawan, son of Arjuna and Dewi Ulupi, along with four *punakawan*, Semar, Gareng, Petruk, and Bagong, wander in the middle of the forest. After the *punakawan* entertain themselves, Raden Bambang Irawan accompanies them to the Wirata palace to meet the Pandawas. (Figure 2)

The characters presented by the screenwriter (director) form a structure of relationships between characters that support each other, are in conflict, or have a relationship, but still support and do not actively establish a relationship with the characters presented. The construction of characters in the narrative text presents the idea of the ethics of power contained in the concept of truth against untruth, manifested in Pandawa and Kurawa. These characters are constructed to face each other between those who fight for the values of truth, justice, and virtue against characters who are on the path of untruth, injustice, and humiliation. Kresna, as the central figure, is supported by King Matsyapati and the

Pandawas, Raden Setyaki, King Salya, the four sages of the gods, Parasurama, Kanwa, Narada, Janaka, *Brahala*, Raden Bambang Irawan, Semar, Gareng, Petruk, and Bagong. The figures on the opposing side who try to hinder the struggle of those who uphold truth, justice, and virtue are King Duryudana, King Karna, Sangkuni, and the other Kurawa knights.

Kresna is the central figure; his role and position are directly supported by the Pandawa knight figures, such as Puntadewa, Bima, Arjuna, Nakula, Sadewa, King Matsyapati, and Raden Setyaki. Roles and positions culminate in the central figure, King Kresna, as the Pandawa ambassador. Kresna, as the Pandawa ambassador and king of Dwarawati, faces challenges and obstacles from the Kurawa knights and

their supporters in his efforts to achieve his ideals of defending the land of Astina and Indraprasta, namely King Duryudana, the prime minister Sangkuni, King Karna, and other Kurawa knights. For the characters Begawan Bhisma and Begawan Durna, although they are in the Kurawa group, they do not support and defend the control of the Astina and Indraprasta countries by King Duryudana and Kurawa, King Salya, as a guest at the peace hearing between the Pandawa and Kurawa, sides with the Pandawa and supports King Kresna. The character Kresna physically appears from the beginning of the performance (*pathet nem*) in the Wirata palace scene. Furthermore, King Kresna, as a central character, appears in events that continue until the end of this play. (Figure 3)

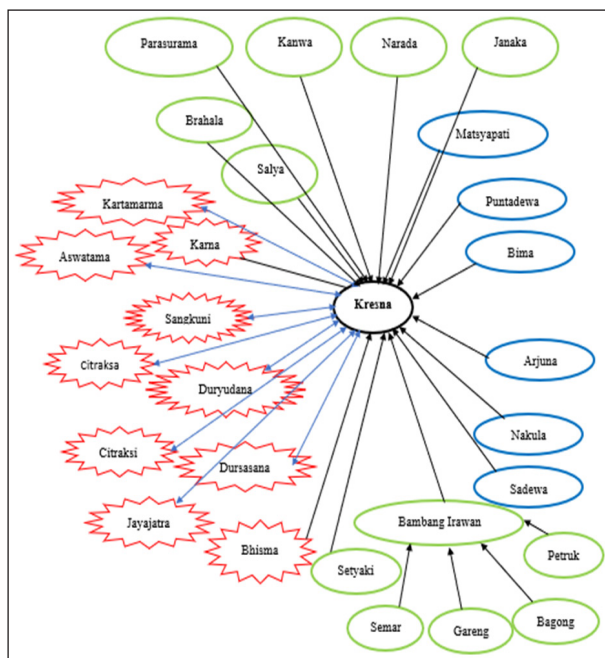


Figure 3. Relationship between the central character Kresna and other characters

Figure Description

Broadly speaking, the characters are positioned in a conflict between those who side with the Pandawas and those who side with the Kurawas. The characters facing each other in the conflict over the existence of the Astina palace are essentially divided into two groups: those in the red, jagged circle (the Kurawas) and those in the blue circle (the Pandawas). The characters in the green circle support and motivate the central character, Kresna. Kresna, as the central character, can build a network of relationships with other characters, whether they support him, oppose him, or interact with him, without showing any support or opposition. Characters in the blue and green circles, accompanied by a black arrow, indicate those who support and assist Kresna's status as an ambassador. Characters in the red, jagged circle, accompanied by a blue, two-way arrow, indicate those who oppose and conflict with Kresna. Characters in the red, jagged circle, accompanied by a black arrow, indicate those who support Kresna. The figures in the red, jagged circles with regular lines (not arrows) indicate the figures who are related to Krishna and are negotiating their position of support between the Pandawas and the Kurawas.

For the screenwriter (director), King Kresna is a narrative device that has the power to provide knowledge to society through the Pandawas, because of his position as the incarnation of the god Wisnu, who has the power to maintain nature through development and maintenance efforts towards harmony through controlling

human creativity, feelings, and will, harmony between members in community life, and harmony of life in the relationship between individuals and God.

Knowledge about the past, present, and future recorded in Kresna's memory is a safe, peaceful, and prosperous world order. Therefore, speech, attitudes, and actions that contradict the principles of truth, justice, and virtue will always be fought throughout his life. King Duryudana's inconsistent speech, attitude, and actions resulted in the growth of untruth, injustice, and evil in the play *KD*, which became a principle that King Kresna had to fight against.

Series of Events

The series of events in the *KD* play is based on the central character, Kresna. The scriptwriter (director) in the first scene tells the story of the land of Wirata as a land that adheres to the values of virtue and heroism of the knights. The Pandawas expect Kresna's presence as the guardian of world peace and prosperity.

The series of events constructed by the scriptwriter (director) from the first scene to the end shows the dominant influence of the character Kresna in his efforts to gain self-existence as an ambassador of the Pandawas since his departure from the land of Wirata for the Pandawa peace mission with the Kurawa. The *KD* play, in terms of the creativity of its dramatic plot, is broadly divided into 3 acts (parts), namely *pathet nem*, *pathet sanga*, and *pathet manyura*. In the *pathet nem* section, there are scenes of the Wirata Palace, the Astina

Palace, and the Astina Palace square; in the *pathet sanga* section, there are scenes in the middle of the forest and the battle of the knights against the giant; and in the *pathet manyura* section, there are scenes of the Panggombakan duchy. Although the dramatic plot of the play undergoes a process of compiling introduction, rise, climax, return or fall, and catastrophe, the performance shows its loyalty to the rules of tradition and convention that apply in the world of *wayang* performances. In principle, conflict between two or more interests continues until it reaches its peak and ends in resolution and resolution. In this separation and settlement, several opposing figures resigned or died.

The series of events constructed in this play refers to the verbal narrative text. In principle, there are not too many scenes, because the goal is a compact presentation of conventional classics. The series of scenes is arranged from beginning to end, namely the first scene at the Wirata Palace, the second scene at the Astina Palace, the third scene at the Astina Palace Square, the fourth scene in the middle of the forest, and the fifth scene in the Panggombakan duchy. Diagram 3 shows the plot constructed by the director. Numbers 1-3: *pathet nem* section; numbers 4 and 5: *pathet sanga* sections; and numbers 6 and 7: *pathet manyura* sections. *Pathet nem* section: the scene begins at the Wirata palace, the problem is built through dialogue by highlighting the status of the Pandawas after being freed from the punishment of exile in the forest for twelve years and hiding for one year without knowing where; Kresna was asked by the Pandawas as an

ambassador until he left for the Astina palace (number 1); The storyline is rebuilt on the Astina palace scene by showing a dialogue between the advisors of the Astina Kingdom, King Duryudana, and the knights of Astina with an emergency situation built by the conflict of opinion between Karna and King Salya, then the resolution with the presence of King Kresna and Karna's departure (number 2); the exposition and stimulus are built through Duryudana's dialogue with Kresna, the emergency situation until the climax Duryudana builds resistance with Kresna, and the resolution occurs with the presence of Salya (number 3); the stimulus and urgency are continued with Sangkuni provoking Burisrawa to pull Setyaki from the horse-drawn carriage, the climax occurs, the war between Setyaki and Burisrawa, then Kresna's cessation in the war is continued with Kresna changing his form into *Brahala*, the cessation by Narada (number 4); The *pathet sanga* section of the event is built by the screenwriter (director) with the appearance of the *punakawan* and Bambang Irawan, continued with the cessation and climax, the war between Bambang Irawan and the forest giant (numbers 5 and 6); *Pathet manyura* section: dramatic events are built by the scriptwriter (director) by showing the scene of the Panggombakan duchy, Dewi Kunti imagines the condition of the Pandawas until the arrival of King Karna, there is a stoppage (number 7); Dewi Kunti faints, the climax is after Karna is about to fight the Pandawas, Karna takes his leave and King Kresna comes to help support Dewi Kunti's body (number 8); the story ends with a resolution,

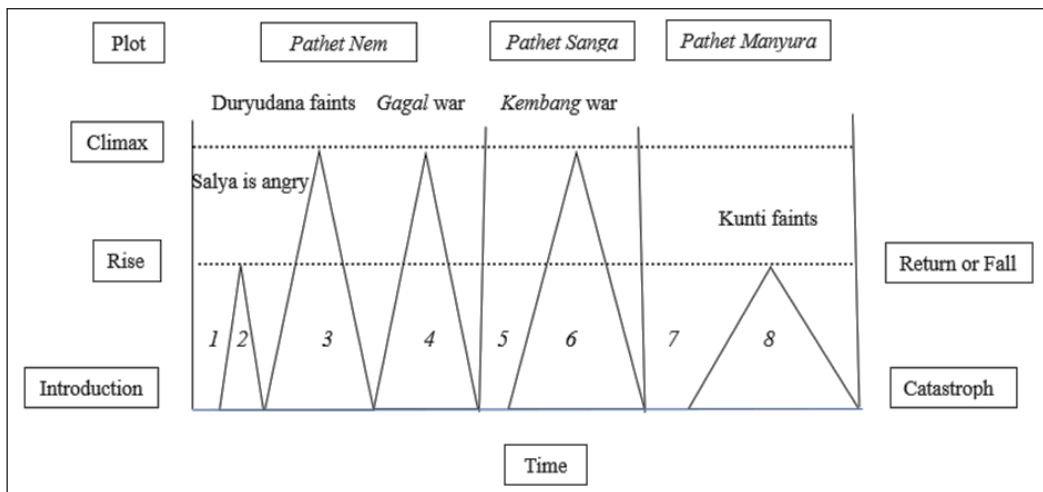


Figure 4. Series of events in the Play KD

namely Kresna's failure as the Pandawa ambassador (number 9).

Freytag's Pyramid (1900), in its implementation in the staging of the *KD* play, experienced a development towards repetition in scene after scene. The pyramid is formed not only in one structure but in several levels. The construction of introduction, rise, and climax is continued with dissolution and resolution in the play in the first part (*pathet nem*), the second part (*pathet sanga*), and the third part (*pathet manyura*). The dramatization process problems through dialogue devices do not always reach the climax phase. The war in the *pathet nem* section is placed by the screenwriter (director) in the *gagal war*, the *pathet sanga* section in the *kembang war*, and there is no climax in the *pathet manyura*. The first scene in the *pathet nem* section is conflict construction or even a climax. Likewise, in the *pathet sanga* section, the appearance of the punakawan and Bambang Irawan, there is no emergency; in the *pathet*

manyura section, Dewi Kunti imagines the Pandawas, and there is no emergency or climax. (Figure 4)

Setting of Place, Setting of Time, and Setting of Social

The setting built by the screenwriter (director) shows the representation of social reality concerning the natural conditions of Indonesia. The Wirata Kingdom and the Astina Kingdom depict the situation and conditions of the Indonesian state during the golden age of the palace in Indonesia. Places conventionally shown by the screenwriter (director), such as the Wirata Palace, the Astina Palace, the *alun-alun* (a large field in front of or behind the palace), the forest, and the Panggombakan duchy, are vehicles to express the situation and conditions of social reality, namely the relationship between the ruler and his people.

The time setting in the *KD* play is depicted in the first scene, which states

that the chosen play has entered the Udyogaparwa era, the 3rd *parwa* of the Mahabharata epic. The time setting in the narrative text presented throughout the performance describes the events of Kresna's departure from the Wirata palace as the Pandawas' ambassador to his failure in his peace mission as an ambassador. The social setting is built by the screenwriter (director) since the first scene in the Wirata kingdom upholds the values of dharma and knightly heroism; however, it needs to be maintained and fought for through efforts to seek protection from Kresna as the embodiment of the god who preserves and builds the universe. The social background built by the screenwriter (director) in the narrative text depicts the ideal idea of the social reality that is to be achieved, namely, a peaceful and prosperous atmosphere. In the first scene, it is clearly described that the state that exists is guided by virtue, justice, and truth. The setting of place, time, and society in the narrative text of the performance is arranged based on the situation and condition of the kingdom society concerning other kingdoms, the palace outside the palace, and the palace as the city center, with the countryside and mountains that depict the traditions and customs carried out by the Javanese people. The tradition of isolating oneself in a place far from the city to perform asceticism in quiet by the Pandawa knights and their descendants provides direction and an example for the Javanese people. Bambang Irawan is a reference for the Javanese people to carry out various actions to get closer to God.

Ethics of Power in Narrative Strategy

The idea of power is oriented towards Javanese cultural values concerning the relationship between power and knowledge. Refinement is a characteristic of a *priyayi*, and that refinement can be obtained. Refinement can be achieved through traditional means, namely, asceticism and inner discipline. Inner discipline cannot be achieved but is only possible through education in certain forms of special knowledge, and knowledge is the key to power" (Anderson, 1990).

Power as a supernatural reality influences and determines itself. The person's power is only a vessel that contains power but does not determine it. Power is sovereign; its struggle and use are not the responsibility of the individual who contains it. At least, they adjust themselves to accept it through asceticism, meditation, and approaching sacred objects. Conversely, the king's self-interest reduces his ability to accommodate cosmic power within himself. As a natural power, power still determines itself (Suseno 1993).

Anderson (1990) explains that the concept of power in Javanese culture is concrete and homogeneous; the amount is fixed throughout nature and does not question legitimacy. The narrative strategy implemented by the scriptwriter (director) in staging the play *KD* applies a strategy built through narrative devices and available staging elements by 'bringing closer', 'highlighting', 'strengthening' the values (norms) of truth and untruth, justice and injustice, and good and evil framed in the ethics of power. The essence of the

supernatural powers obtained by King Kresna is implemented in human life to stem evil actions, which will disrupt and damage the universe. In the Javanese view, such a human being has been accepted as an effort to get closer and unite with nature and God. The existence of humans, nature, and God are three elements that cannot be separated and always form a unity in a harmonious relationship. Humans practice with concepts, methods, and applications in a quiet space to gain knowledge. Efforts to gain knowledge are based on awareness and understanding of the nature of God. The knowledge obtained is not intended to damage and disrupt humans and the universe, but rather to build and maintain it so that it is in harmony. This effort is a continuous mission for humanity, having a chivalrous character to fight to uphold truth, justice, and virtue on earth. Harmony and respect between fellow human beings are the ideals of the Javanese people, which are always maintained, cared for, and upheld to create harmony in life.

As an idea about the ideals of a collective cultural value system, the ethics of power applied in life are always oriented toward truth, justice, and virtue. Power related to knowledge is the power of truth that continues to be fought for to gain victory over the left forces trying to shake the universe. The mastery of science personally by someone is not arbitrary in utilizing it in life, but must always be oriented towards the values of truth, justice, and virtue. Power is a concrete form that is always related to the entire nature, cannot be felt only externally,

but needs to be understood by using inner powers because of its supernatural nature. This system of ideas becomes a guide and reference for scriptwriters (directors) to compose all elements of narrative and staging so that the right position as a variable of truth, justice, and virtue is placed in a position that always wins the fight. The criteria of humans like Kresna, who have supernatural knowledge, awareness, and understanding of themselves, can become a myth that can direct society. Humans in their status and role as Kresna are always guarded and protected by God. Power in the context of science is always used to maintain harmony in life between one human and another, humans and nature, and humans and God. Kresna's victory over Duryudana in the play *KD* is the victory of truth over untruth.

The narrative strategy places power as an important cultural value. Narrative elements and staging elements work together to create the figure of Kresna as something from the supernatural realm. The real relationship of power is truth, justice, and virtue, which are connected with awareness and understanding of the nature of God, which will become knowledge with the mission of achieving harmony in life between humans and humans, humans and nature, and humans and God (See Figure 5)

Results of the study show that the narrative strategy of the *KD* play is implemented by the scriptwriter (director) to compose a play that meets the actual, relevant, logical, contextual, and quality. The elements of narrative, characters, series of events, setting, time setting, and

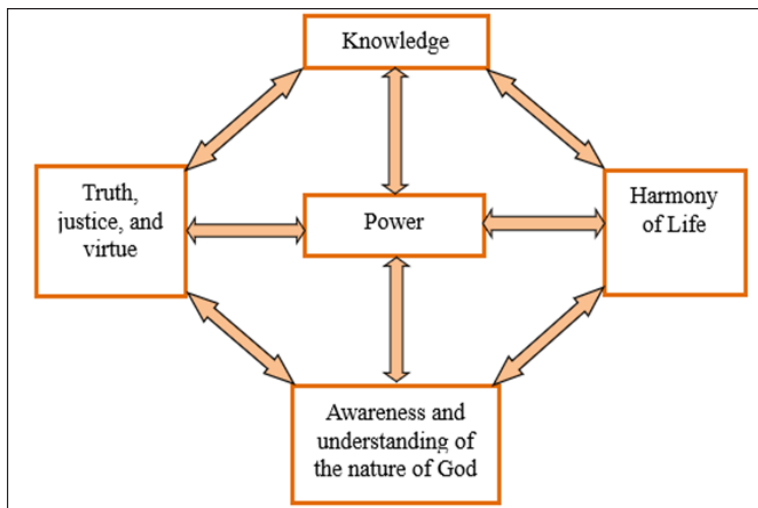


Figure 5. Description of the idea of power in Javanese culture in the context of the Play *KD*

social setting are arranged according to the needs of a certain duration determined according to the general rules of *wayang* performances, namely: *talu* (opening music); Wirata palace scene; Astina palace scene; King Kresna and King Salya scenes at the Astina palace; Astina Palace square; Panggombakan Duchy; closing.

The screenwriter (director) applies narrative strategies based on imagination, intuitive sensitivity, intellectuality, and understanding of cultural codes by adhering to traditional values such as conventions and history in puppetry and myths that develop in Javanese society. The scriptwriter and director combine narrative strategy and staging creativity in placing all elements in the performance to achieve actual, relevant, logical, contextual, and quality criteria.

The narrative strategy of the screenwriter (director) places the *KD* play, containing the ethics of power that originate from Javanese cultural values. Power is obtained by uniting

oneself with the universe in a holy and quiet place so that it is easy to mobilize creativity, feeling, and will toward awareness and understanding of the nature of God that is manifested in the elements throughout the universe. Kresna is a character who has obtained power that originates from supernatural powers. He is the incarnation of the god Wisnu, the ruler of the universe. The truth in Kresna, as a variable of the Pandawas, wins when fighting the falsehood in Duryodhana, as a variable of the Kurawas. The victory of truth over falsehood is a core idea in Javanese culture.

CONCLUSION

The study "Narrative Strategy and Ethics of Power in the *KD* Play: A Review of the Surakarta Style *WW* Performance (Indonesia)" produced several conclusions that can be described as several findings, theoretical implications, and implications

of the findings. Careful observation of the relationship between narrative strategy and ethics of power in the Surakarta style *WW* performance of the *KD* play, this study found answers to the problems raised as follows:

Findings

Behind the ethics of power about truth that operates and is interwoven in the play *KD*, the storytelling strategy that originates from tradition and convention, as well as history and myth, is operated by the scriptwriter (director) to place and play the power of truth through the narrative construction of the play *KD*. The ethics of the power of truth operate and are interwoven in the storytelling of Kresna as a messenger who conveys knowledge about truth. The scriptwriter's (director's) storytelling strategy positions the character Kresna as the representative of the Pandawas, the manifestation of the God Wisnu, and the essence of the power of truth, justice, and virtue. On the other hand, Duryudana is a Kurawa representative as the essence of untruth, injustice, and unvirtue. Narrative Strategies are oriented towards the power of imagination, intuitive sensitivity, intellectuality, and understanding of cultural codes applied by scriptwriters (directors) to compose literary works aesthetically. Characters and characterisation, series of events, setting, time setting, and social setting are narrative elements used by scriptwriters (directors) in composing the ethics of power.

The knowledge possessed by the scriptwriter (director) consists of imagination,

intuitive sensitivity, intellectuality, and understanding of cultural codes. The knowledge related to history and myths, as well as traditions and conventions, tries to accommodate narrative elements completely and comprehensively. The scriptwriter (director) has a wealth of knowledge related to history, myths, traditions, and conventions, trying to make the play in the performing arts meet the criteria of actual, relevant, logical, contextual, and quality. The power depicted by the figure of Kresna shows the importance of thinking to understand truth, justice, and virtue. Power is concrete, widespread, and divided. Every human can obtain: diligently contemplating and meditating in a quiet place to unite with the supernatural world. Kresna's attitude and actions provide a picture to society about the morality of truth, justice, and virtue. Humans strive to create a safe, peaceful, and prosperous world order.

Theoretical Implications

The findings of this study broadly explain the relationship between narrative strategy and the ethics of power through the study of the *KD* play. Narrative strategy and ethics of power in the context of Javanese culture have provided a theoretical synthesis horizon that is used as an opening for other sciences to approach the object of *wayang* studies in Indonesia. The history of *wayang* concerning religion can be developed in a more complex direction, such as the use of semiotics to study more deeply the meaning of the relationship between the figure of Kresna and the social, cultural, and

political situations as the reality of people's lives and the theory of myths that can be used to explore the relationship between instruments in *wayang* and the belief system that develops in society.

Implications of Findings

Currently, *wayang* plays have emerged that originate from local wisdom in Java by presenting the figure of Kresna as the focus of the problem. The theme of the puppet play emerged along with the holding of an event, which was adjusted to the local socio-cultural situation, so that it can be used as material for further research related to the figure of Kresna that is oriented towards other styles outside the Surakarta style. This research can be directed to formulate whether the emergence of the figure of Kresna in various styles of *wayang* performances has the same or different characteristics, patterns, structures, and functions. The elements of the performing arts of *sulukan* (the *dalang's* song), *sindenan* (female singer singing), *gending* (composition of tones and rhythms), dance movements, make-up, and fashion accessories are the remaining problems that can be answered and explained in further research.

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Gender-responsive Health Communication Model as Stunting Mitigation in Indonesia

Petrus Ana Andung*, Felisianus Efrem Jelahut, and Maria V.D. Pabha Swan

Faculty of Social and Political Sciences, Universitas Nusa Cendana, Jl. Adisucipto, Penfui, Kota Kupang, East Nusa Tenggara Province, 85148 Indonesia

ABSTRACT

East Nusa Tenggara is one of the provinces in Indonesia with the highest prevalence of child stunting cases at 35.3%. The contributing factor to this condition is the absence of partners in family healthcare. Therefore, this research aimed to develop a gender-responsive health communication model as a form of stunting mitigation in rural communities. This research used a constructivist paradigm with a case study method. Data collection techniques included in-depth interviews and participant observation, and analysis followed the Miles and Huberman interactive model of data analysis. The findings show that increasing stunting cases were triggered by improper parenting practices, unbalanced nutrition, inadequate environmental sanitation, and the lack of husbands' inclusion in supporting family health. Gender imbalances in family roles also affected the compliance of mothers in accessing health checks in proper parenting practices. Gender-responsive health information literacy is therefore one of the solutions to reducing stunting. In a society with a patriarchal culture, providing health information to husbands has a major impact on family decisions to combat stunting. This study implies that involving husbands in monitoring and ensuring the health status of mothers and children is a must to reduce stunting in rural areas.

Keywords: Gender-responsive, health communication, health literacy, stunting mitigation

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E-mail addresses:

petrusanaandung@staf.undana.ac.id (Petrus Ana Andung)

felisianus.efrem.jelahut@staf.undana.ac.id (Felisianus Efrem Jelahut)

mariapabhaswan@staf.undana.ac.id (Maria V.D. Pabha Swan)

*Corresponding author

INTRODUCTION

Stunting is a health issue currently affecting the Indonesian population. According to Indonesia's Nutritional Status Survey (SSGI) by the Ministry of Health, the prevalence reached 21.6% in 2022. Among the 34 provinces, East Nusa Tenggara ranks first nationally with a stunting rate of 35.3% (Kemenkes, 2023).

In East Nusa Tenggara province, the South Central Timor Regency ranks first among several other regencies in terms of stunting prevalence. According to data e-PPGM Results on Stunted Children for South Central Timor Regency, East Nusa Tenggara Province, August 2022, Kesatnana Village has the highest stunting cases among the villages in South Central Timor Regency, with a percentage of 50.9% (Dinas Kesehatan Timor Tengah Selatan, 2022).

Based on this data, stunting is a very serious issue in South Central Timor Regency. This problem is increased by the dominance of patriarchal culture and gender role inequality within families. As an indicator, women bear an excessive double workload, both in domestic and outside-of-home work, which results in a lack of time to pay attention to children's health. The preliminary research shows that the understanding of married couples, primarily concerning efforts to prevent stunting, is still very limited. Furthermore, Law of the Republic of Indonesia No. 36 Year 2009 on Health emphasises that providing health information to the public is a necessity to ensure effective health efforts (Pemerintah Republik Indonesia, 2009).

LITERATURE REVIEW

Research on stunting mitigation has been conducted in various countries, including Pakistan, Nigeria, several African nations, and Indonesia. A study in Pakistan emphasized that one effective method for preventing and addressing stunting is the provision of food supplements to children

under five years old (Zaidi et al., 2020). However, the study primarily focused on health interventions, particularly the distribution of these supplements, and did not address other critical aspects, such as the importance of health information literacy for parents and the broader community. This gap suggests that while nutritional support is essential, a more comprehensive approach that includes educating parents and communities about stunting is necessary for sustainable mitigation.

Research in Nigeria identified that one of the primary factors contributing to stunting in children is poverty, alongside other factors such as low parental education, being a male child, having a short-statured mother, low maternal education, frequent diarrhea, and being the fourth or later child in a family with a birth interval of less than two years (Ezeh et al., 2021). The study concluded that stunting mitigation efforts should include providing social security to communities through cash assistance, enhancing school feeding programmes, and offering special relief during the lean season or drought. However, this research did not address the involvement of fathers in monitoring the health of family members as part of the stunting mitigation strategy, leaving a crucial aspect of family health management unexamined.

A study on the prevalence of child stunting across 36 Sub-Saharan African countries and its associated risk factors highlights that stunting is significantly more prevalent among children over one year old, boys, those with low birth weight,

shorter inter-pregnancy intervals, and children of mothers with low education, as well as in poor and food-insecure households (Quamme & Iversen, 2022). To combat stunting, the study emphasises the importance of policies and interventions focused on improving women's education and child feeding practices. However, the research overlooks non-medical factors that contribute to stunting, such as the unequal gender roles in society, which place a disproportionate burden on mothers, thereby exacerbating the issue.

Interestingly, a study conducted in Indonesia examined stunting from a gender perspective and concluded that gender inequality significantly contributes to the high prevalence of stunting. The strong patriarchal culture placed women or mothers in a powerless position regarding the right health choices (Tinaningsih et al., 2022). The study's findings confirm that the dominance of men as husbands in such societies can negatively impact maternal health during pregnancy, further exacerbating the risk of stunting. However, the study did not explore potential solutions to mitigate stunting through gender-responsive health communication between husbands and wives within the household.

Based on previous research, adequate health information literacy is crucial for mothers as well as partners or husbands. Correct health literacy plays a pivotal role in improving the overall health status of families. In the context of stunting, gender equality—particularly as reflected in a husband's support for his wife—significantly

impacts efforts to eradicate stunting within the family. However, previous studies have not specifically investigated gender-based health communication models aimed at enhancing health outcomes, including the prevention of stunting. This gap is particularly important in communities with deeply entrenched patriarchal cultures, where decisions about accessing health services are predominantly controlled by husbands, even when wives have sufficient exposure to health information. Therefore, this research offers novel insights by proposing a gender-responsive health communication model to combat stunting within such communities.

Health literacy is an individual's ability to manage and improve their quality of life (Schulenkorf et al., 2022). Health literacy is also defined as the ability to find, understand, and use health information and services to make informed decisions and take appropriate actions (Meier et al., 2022). Therefore, health information literacy is the ability and competence of an individual to seek, find, understand, and interpret various information.

Before analysing gender-responsive communication, it is important to discuss the concept of gender. The term refers to socially constructed differences in roles, responsibilities, and opportunities between women and men (Prosen, 2022). Gender terminology differs from the term sex, which refers to the biological, physiological, functional, and anatomical differences that distinguish between males and females. Conversely, gender refers

to the characteristics attributed to men and women by society and culture. It is a socio-cultural phenomenon resulting from social and cultural constructs within society (Komilova, 2022). Gender equality in society is crucial for improving the health status, especially of women and children, and promoting social change within the community (García et al., 2022). Gender-responsive communication is an interactive process that promotes equality and fairness in decision-making between women and men across communities, families, and organizations, ensuring equal access to resources, opportunities, and roles for both genders (Tüzel et al., 2021). In this study, gender-responsive health communication is defined as a fair and balanced exchange of health-related information between husbands and wives within the household, ensuring mutual involvement in health decision-making, and promoting justice and equality in health improvement.

This study, therefore, aims to develop a gender-responsive health communication model as a form of stunting mitigation. The research focused on the efforts made by the government of South Central Timor Regency to address stunting cases.

Theoretical Framework

This study uses the Health Belief Model (HBM), developed in the 1950s by Irwin M. Rosenstock, Godfrey M. Hochbaum, and their research team during tuberculosis screening studies, as a theoretical framework used to analyze and predict individuals' beliefs, behavioral tendencies, responses,

and attitudes toward specific health issues (Chin & Mansori, 2018). Initially, the Health Belief Model was founded on the principle of disseminating information to raise public awareness and concern regarding the significant health risks posed by certain preventable diseases, particularly those that could be effectively treated if detected early. Health educators aimed to convey that individuals could actively reduce these risks by adopting specific preventative measures (Green et al., 2020).

The Health Belief Model (HBM) suggests that an individual's engagement in health-related behaviors is contingent upon the presence of three critical factors. Firstly, there must be a heightened sense of motivation or concern, whereby health matters are perceived as personally significant. Secondly, the individual must recognize their own susceptibility to serious health issues and the potential consequences thereof. Lastly, they must hold the belief that adhering to specific health recommendations will effectively mitigate the perceived risks, with the benefits of such actions outweighing any associated costs. Collectively, these factors shape the likelihood of an individual adopting health-promoting behaviors (Rosenstock et al., 1988).

In this study, the Health Belief Model (HBM) is employed to analyze the behaviors and actions of villagers concerning stunting. The model elucidates that the villagers' perceptions, beliefs, and awareness regarding the threats and implications of stunting will significantly influence their

behavioral responses. Their understanding of these risks will determine the specific measures they are likely to implement to address the issue.

The novelty of this research from a theoretical perspective lies in the integration of gender perspectives. The Health Belief Model traditionally focuses on the individual as a rational decision maker, without considering broader social and cultural influences. In this context, the model is adapted to include the influence of gender norms on individuals' understanding and beliefs about child health, particularly in relation to stunting mitigation.

METHODS

This research used a constructivist paradigm, viewing reality as a construct of human beings. Reality shows a dual nature, offering the potential for malleability and ultimately embodying a fundamental unity. This qualitative analysis was based on the constructivist paradigm, which considered knowledge as a result of experiences with facts and the product of the subject's thinking (Iskandar, 2022).

Using a case study method, the research was conducted in Kasetnana Village, South Mollo Subdistrict, South Central Timor Regency, East Nusa Tenggara Province, Indonesia, which had the highest stunting cases. The informants included 11 individuals, consisting of married couples (families) with stunting cases, government officials (from the South Central Timor Regency Health Office), village officials, and community members. The informants

were selected using a purposive sampling technique with certain considerations and criteria. Family informants met the criteria of being a married couple whose child was stunted. While government and community leaders were selected with the criteria of having dealt with stunting cases in the village. The selection of informants deliberately considered gender balance, ensuring an equal representation of male and female participants to capture a wide range of perspectives.

To ensure data saturation, several critical aspects were considered. Information saturation was reached after interviewing the eleventh informant, as no new results or patterns were reported. In addition, maximum variation was ensured since the data collection process included a diverse range of contexts and perspectives in the community. The viewpoints from various groups were represented, including considerations of gender, age, social position, educational level, and occupation. The relevance of the collected data to the research objectives was important, with all gathered information comprehensively addressing the questions posed.

The data collection techniques used in this research include in-depth interviews and participant observation. In-depth interviews were conducted using an interview guide. The process began with an explanation of the research purpose and the rationale for selecting the informants. Following consent, each interview lasted approximately 60 minutes. Participants were assured that their names would remain confidential and not

appear in the research report or published manuscript. The primary research questions addressed were: 1) What is understood about stunting, including its causes and risks? 2) What measures are taken within the family to mitigate the risk of stunting? 3) How are roles divided between husband and wife in both domestic tasks and ensuring family health? 4) How is health information exchanged between husbands and wives, and with health workers, to prevent stunting? Participant observation was used to closely observe how gender relations evolved in the daily lives of the villagers.

Data analysis was carried out using the Miles and Huberman interactive model, which involves the stages of data collection, data condensation, data display, and conclusions (Miles et al., 2014). During the data collection phase, all information from sources was meticulously recorded using a recording device. In the data condensation phase, the recorded interviews were carefully reviewed, and the informants' responses were transcribed into non-verbatim transcripts. Any information that was irrelevant to the research context or topic was systematically filtered out. In the third phase, data presentation was conducted using NVivo 12 software, where open coding was applied to identify themes emerging from the field data. Axial coding was then employed to establish connections between these themes in alignment with the research objectives. Finally, conclusions were drawn based on the comprehensive mind mapping conducted throughout the

analysis. These four interactive models are illustrated in Figure 1.

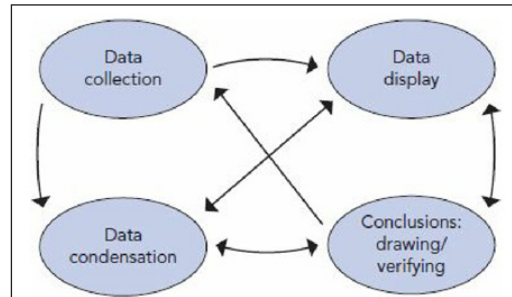


Figure 1. Interactive model of data analysis (Miles et al., 2014).

To ensure the validity of this qualitative study, the researchers applied 7 strategies suggested by Creswell such as triangulation, member checking, the use of rich and thick descriptions, revealing the biases that the researcher brings to the study, presenting negative or contradictory information that goes against the themes of the qualitative research, spending extended time in the field, and using peer debriefing (Cresswell, 2009). In order to avoid bias in data collection, two types of triangulation were carried out, namely source triangulation and method triangulation. Source triangulation was carried out by comparing data obtained from one informant with another. Data are considered valid if there is mutual confirmation between informants. Method triangulation is carried out by comparing information obtained through the in-depth interview method with information collected through participant observation.

This study was conducted in accordance with the Declaration of Helsinki and

approved by the Ethical Committee on Social Studies and Humanities, National Research and Innovation Agency, Indonesia, with decree number 157/KE.01/SK/02/2024 on 26 February 2024. All guidelines and regulations stipulated by both the committee and the Declaration of Helsinki were complied with. Before each interview, written informed consent was obtained from all participants after verbally explaining the purpose of the study.

RESULTS AND DISCUSSION

The high prevalence of stunting cases in South Central Timor Regency is attributed to several factors as follows.

Inadequate Parenting Practices

A significant trigger for stunting cases is closely related to inadequate parenting practices. Parents often lack a proper understanding of how to raise their children correctly. Health literacy concerning the importance of providing nutritious food is very limited. The most at-risk children, commonly found to be suffering from stunting, are usually the firstborn. This is closely connected to the limited health information literacy regarding parenting practices and knowledge of child nutrition.

As explained by informant A, the increase in stunting is not solely due to poverty but more to the low understanding of the community about proper and healthy parenting practices.

I see that it is not just poverty, but more about the community's understanding.

Furthermore, stunting in Kasetnana Village is mostly due to parenting practices (interview with Informant A).

Informant B, who is an official at the South Central Timor Regency Health Office, expressed a similar opinion, stating that many children in the regency experience stunting due to ineffective parenting practices. Parents often lack a proper understanding of how to provide their children with good food and drinks. Moreover, parenting is often entrusted to other family members, especially grandparents.

...this is because of eating habits, irregular parenting, and inadequate food provision. Sometimes, when parents are absent, children are entrusted to their grandparents (interview with Informant B).

Imbalanced Nutrition

The second contributing factor is an issue of imbalanced nutrition. Informant C, a Health Cadre in Kasetnana Village, explained that imbalanced nutrition was a significant concern in the community. During pregnancy, pregnant women do not consume a nutritionally balanced diet, which also affects the fetus. According to Informant C, most children suffering from stunting are from families where parents do not pay attention to providing nutritionally balanced meals.

Pregnant women tend not to pay attention to nutritious food intake, and this affects the fetus's growth. The provision of a nutritionally balanced

diet often fails to take precedence, contributing significantly to the increased risk of stunting cases in children (interview with Informant C)

Informant D, a healthcare worker, also expressed a similar view that the eating habits of pregnant mothers were poor and lacked balanced nutrition, leading to an increase in stunting cases. The excerpt observed from the interview is as follows: *"...because pregnant mothers have poor eating habits, this leads to many stunting cases"* (interview with Informant D)

The behavior of providing nutrition is closely related to the socioeconomic status of the community. The highest stunting cases have a background in low-income farming, and this condition affects the community's ability and purchasing power to meet nutritional needs adequately.

These parenting practices are further increased by incorrect health-related myths in the community. As stated by Informant E, some rural communities practice rituals related to a child's illness and do not immediately seek healthcare services despite their availability.

...When the children are sick, parents often believe that their children are affected by evil spirits. The actions comprise applying wooden concoctions and traditional remedies like papaya leaves or stems mixed with betel leaf (interview with Informant E).

The information from the Village Head was confirmed by a mother who carried out a *naketi* ritual (a river worship ceremony

as a form of confession because the family was suffering) when the children were sick. The children were not immediately taken to a health service center but were given traditional herbal medicines.

When the children are sick, we also often perform the 'naketi' ritual, which means seeing our mistakes with the ancestors. Before being taken to the Community Health Center, children are first given traditional medicines (interview with Informant F).

Poor Sanitation

Another factor is poor sanitation, and according to Informant C, the community in Kesenana Village, where many stunting cases are found, generally does not pay adequate attention to environmental sanitation. For example, the drinking water consumed is often not clean, and the cleanliness of children is rarely considered.

Apart from inadequate parenting practices, a lack of attention to sanitation was reported, especially the personal hygiene of children. The drinking water consumed was unhygienic, and children became unhealthy (interview with Informant C).

Concerning this, another healthcare worker in Kesenana Village stated that various campaigns and socializations regarding the importance of healthy environmental sanitation have been intensively carried out. However, the behavior of the community has not significantly changed.

Healthcare cadres conduct monthly socialisation about the importance of healthy environmental sanitation, with the advocacy for clean and safe drinking water. Some individuals do not adhere to these principles of healthy living (interview with Informant C)

Responding to this situation, the South Central Timor Regency Health Office is making strong efforts to improve environmental health. This is achieved by constructing proper toilets and providing clean water, as well as sanitation support through collaborative efforts with other departments such as the Department of Education and Culture, the Department of Women's Empowerment, and the Department of Population and Family Planning (P2KB).

Lack of Husband's Role in Supporting the Health of Mothers and Children

The findings indicate that various health information literacy efforts, especially regarding children's health, are mostly received by women or wives. Meanwhile, husbands often lack adequate knowledge about health information. Decision-making regarding children and environmental health is made by men or husbands. In this context, gender roles in family health, including child health, are imbalanced. Men or husbands are found to be less actively involved in supporting the health of mothers and children. According to Informant J:

... Ideally, husbands should play a role and jointly monitor and maintain the

health of the mother from pregnancy to raising the children. But in reality... many husbands are apathetic and indifferent (interview with Informant J).

Informant B, an official at the South Central Timor Regency Health Office, expressed a similar view. He stated that the initiative to seek healthcare services is generally taken by wives. Husbands, due to their lack of understanding and busy schedules, are less involved in ensuring the good health of their families.

Gender-responsive Health Communication as One of the Stunting Mitigation Efforts

Gender-inclusive health communication is a solution to slow down the rate of stunting cases in South Central Timor Regency. The local government, through the Health Office, has launched a programme known as GASELOR, or the Father as a Counselor Movement. Through this programme, maximum support can be provided to their wives and children. The programme maximises the role of fathers in escorting their wives to integrate health posts and healthcare facilities during pregnancy. Below is a quote from an interview with Informant B, who is an official at the South Central Timor Regency Health Office:

There is a programme called 'Gaselor, the Father as a Counselor' born from the observations in the field that fathers have a limited role in supporting their wives and families. Initially, it was about nutrition, but when it comes

to stunting, the focus is on the first 1,000 days of life, from pregnancy to the child's second birthday. Therefore, the role of fathers was maximised in escorting their wives to health posts and healthcare facilities to monitor the development of the mother and child. The idea was launched on National Nutrition Day, February 17, 2022 (interview with Informant B)

According to Informant B, the frontline in implementing this programme is health promotion personnel who coordinate with the cadres. Through various approaches and communication instruments, awareness was raised to maximise the inclusion of husbands in monitoring the development of their wives and children. Husbands are given the role of monitoring their health and facilitating visits to the nearest healthcare facilities.

Informant B mentioned that this programme is still in the pilot phase at one Community Health Center, specifically the Tetaf Health Center in Kesetnana Subdistrict, covering 2 or 3 villages. The South Central Timor Regency Health Office will expand the pilot programme to all health centers when effective. The results of the Gaselor Programme at the Tetaf Health Center have been quite significant. During health check-ups in February and August 2023, fathers generally knew their baby's height, weight, and nutritional status.

In the context of health communication, the programme known as GASELOR can be understood as a form of gender-responsive health communication. The maximum

inclusion of men as fathers can be promoted by monitoring, accompanying their wives to healthcare facilities, and providing financial support for nutritious family meals. Gender-responsive communication, exemplified by the Father as a Counselor Movement, can help eliminate gender role inequality between husbands and wives in farming households in the village. Therefore, gender-responsive health communication is one of the mitigation efforts to combat stunting cases. Health prevention behaviors and actions are positively affected when husbands and wives share the same information literacy, starting from accessing facilities to maintaining clean and healthy living within the family.

Fathers can become actively involved in monitoring the health of the mother and the fetus through Gaselor. They accompany their wives to healthcare services to receive valuable advice and guidance from healthcare professionals.

In every village in South Central Timor Regency, several cadres have been assigned roles in promoting health, including stunting prevention. These cadres become friends and discussion partners for husband-and-wife couples regarding health issues faced in farming households. The gender-equal communication approach is an alternative to shaping the responsibilities of husbands and wives in striving for good health within their households, as shown in Figure 2.

Figure 2 shows a gender-responsive health communication model for reducing stunting in rural areas. The arrows indicate the direction of health communication. This

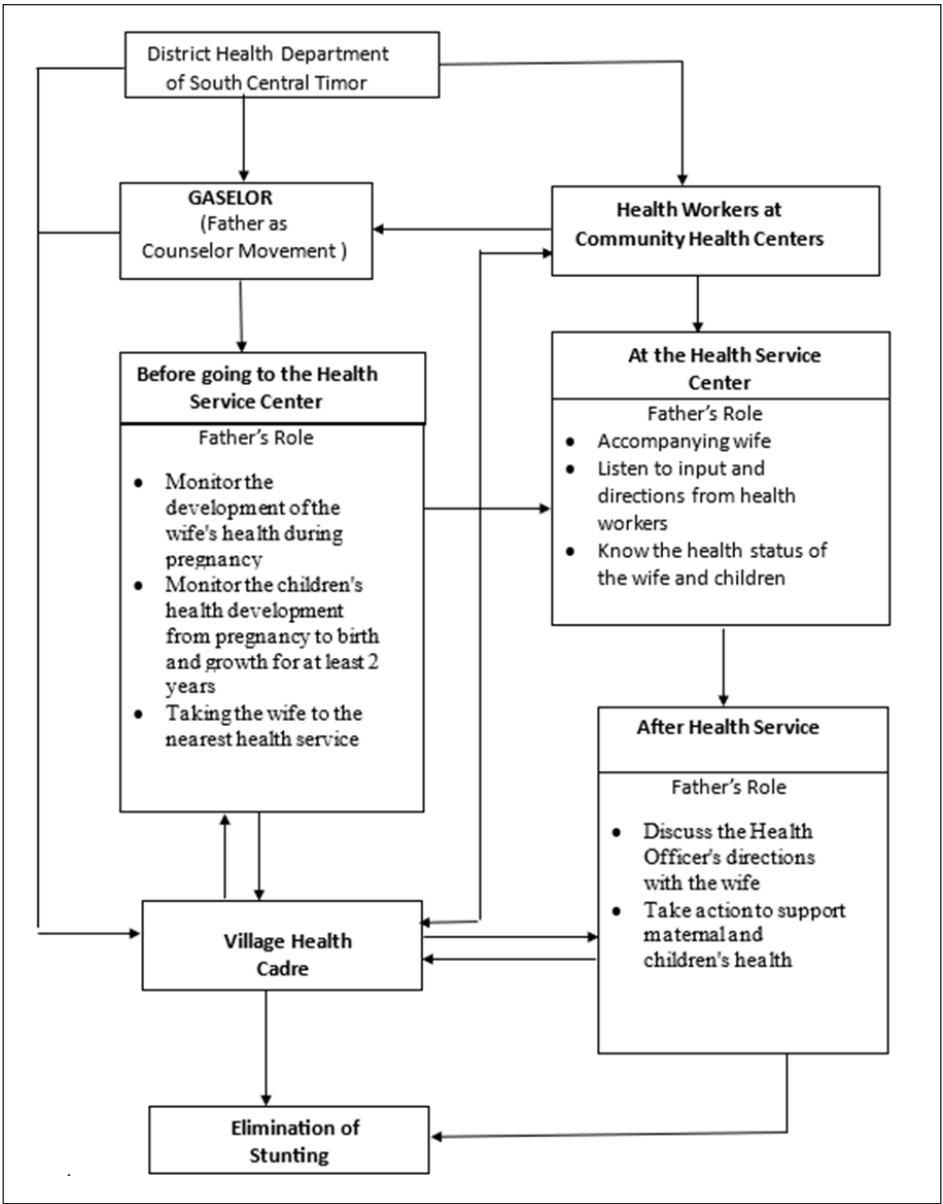


Figure 2. Gender-responsive health communication model for stunting mitigation

model emphasises the role of the government, particularly through the Ministry of Health, in promoting the involvement of husbands as health counsellors and supporters of their wives. Before accessing health services,

husbands are encouraged to monitor and ensure the health of their wives during pregnancy and to contribute to the healthy development of the child. During health care visits to health facilities, husbands

should accompany their wives to receive balanced health information and enable joint decision-making. After accessing health services, husbands continue to play a crucial role by following up on the health information provided by health workers.

In their role as health counsellors, husbands are encouraged to engage in discussions with village health cadres to promote a collaborative approach to maternal and child health. The Government of South Central Timor, through its Department of Health, is responsible for facilitating and overseeing the implementation of the Father as Health Counsellor initiative. This gender-responsive communication model aims to ensure the active involvement of husbands in maternal and child health, thereby sharing the responsibility for preventing stunting between both parents. By promoting an equitable exchange of health information between husbands and wives, this model enables quick and informed decision-making, ultimately contributing to stunting prevention efforts within the community.

DISCUSSION

The study's findings indicate that the rise in stunting cases within the community of Kesetnana Village, South Central Timor Regency, Indonesia, is primarily driven by a lack of health information literacy. The community members are largely unaware that stunting poses a significant threat from the onset of pregnancy through to the toddler years. Stunting often begins to develop even before birth, making it essential to provide comprehensive information that enhances

both mothers' and fathers' understanding during pregnancy. This early intervention is crucial in preventing the onset of stunting in children and ensuring their healthy development from the very beginning (Namirembe et al., 2022). The findings from South Central Timor Regency provide a microcosm of the broader national stunting situation in Indonesia. The challenges and gaps identified in this region reflect similar issues across the country and highlight the low level of public awareness of healthy lifestyles (Zaleha & Idris, 2022).

The results of this study highlight the importance of intensifying health communication efforts by health professionals, especially those targeting married couples. Continuous and sustained education through various health information campaigns is essential to increasing health awareness within the community. The role of health communication is essential and closely related to the process of delivering health information in influencing the appropriate behaviors, actions, or decisions of the community regarding health maintenance (Putri et al., 2022). Effective health communication can have a positive impact on people's behaviour with regard to access to health care services (Jena et al., 2022; Sichel & Elkington, 2023).

The cases of stunting experienced in South Central Timor Regency were found to be in line with several other previous studies that showed a strong relationship between poor nutritional status and inadequate sanitation and children's vulnerability to stunting (Ekholuenetale et al., 2022;

Quamme & Iversen, 2022; Widyaningsih et al., 2022). People living in rural areas are more susceptible to this condition due to limited economic support, which also results in insufficient balanced nutrition and the ability to achieve healthy environmental sanitation. Children experiencing stunting in South Central Timor Regency largely come from families with low economic status. Financial constraints make it difficult for these families to provide balanced nutrition for their members. Additionally, the remote locations of these communities exacerbate the problem, as the significant distance from healthcare facilities results in additional transportation costs, further limiting access to essential health services.

Beyond economic constraints, the high incidence of stunting in South Central Timor Regency is also driven by limited human resources. This is evident in the low levels of knowledge and awareness regarding the benefits of balanced nutrition, the critical importance of accessing healthcare services, and the adoption of healthy living practices. Several studies affirm that unhealthy behaviors are commonly observed among individuals with lower levels of education (Masquillier et al., 2023; Meier et al., 2022).

Therefore, to reduce the prevalence of stunting, a strategy that focuses on strengthening human capacities and resources, starting with the family environment, is essential. Health communication efforts should be balanced and equally targeted at men and women to ensure that husbands and wives are equally informed and involved in stunting

elimination. Involving men or husbands in the fight against stunting should be prioritised for the following reasons. Firstly, the role of husbands in providing attention, emotional support, and active monitoring of their wives' health can significantly influence their wives' adherence to health check-ups (Maesaroh, 2023). Secondly, partner support has a significant role in managing health and facilitating necessary behaviors or actions (Gil et al., 2022). Thirdly, the inclusion of fathers in ensuring family health also benefits the improvement of the members and promotes gender equality in society, as well as the importance of shared responsibility (Allotey et al., 2022; Mhango & Nyondo-Mipando, 2023). Lastly, in most societies with strong patriarchal cultures, the cultural construction of masculinity is still highly gender-biased, assuming that domestic duties, including childcare, are primarily a woman's responsibility (Farnworth et al., 2023). This situation leads to a double burden on women, affecting their ability and flexibility to provide balanced nutrition and care (Mkandawire et al., 2022).

In addition to the active involvement of husbands in enhancing the health status of family members, the engagement of the entire community is crucial for eradicating stunting in rural areas. A movement to promote health literacy by emphasizing the role of the community collectively, as well as optimizing social networks, is needed (Upreti et al., 2023). Increasing the active role of the community can also be done by adapting health communication messages to the social and cultural characteristics of

the local community (Ramírez et al., 2023). To improve the health information literacy of the community, it can maximise the use of various communication channels that are available and accessible to the community (Ruck et al., 2017).

From the perspective of the Health Belief Model Theory, the findings of this study suggest that the prevalence of stunting is primarily due to the community's inadequate understanding of the risks and implications associated with stunting. In Kesetnana Village, South Central Timor Regency, Indonesia, residents do not recognize the increasing threat of stunting and its potential consequences. This lack of awareness results in indifferent behaviors within the community. The indifference is evidenced by the insufficient community efforts to implement preventive measures against stunting. Moreover, there is a pervasive lack of awareness regarding the impact of stunting on the health and future well-being of their children.

According to the Health Belief Model (HBM) Theory, effective action towards addressing health needs depends on three crucial factors: a strong motivation and concern for health, an awareness of vulnerability to health issues, and the belief that adhering to health recommendations will reduce perceived risks (Rosenstock et al., 1988). In previous studies of health behaviour, the HBM has been widely used to understand health-related decisions, particularly regarding vaccination and preventive health measures. For example, the work of (Grinberg & Sela, 2021)

showed that mothers' perceptions of disease severity and the benefits of vaccination significantly influenced their decision to vaccinate their children, highlighting the predictive power of HBM elements such as perceived susceptibility and severity in health decisions. Similarly, HBM was used to explain the uptake of the COVID-19 vaccine in Indonesia, where perceived benefits and barriers played a critical role in determining individuals' vaccination intentions (Adiyoso et al., 2023).

However, the use of HBM extends beyond individual perceptions and is increasingly being used to examine the impact of gender dynamics on health decisions. In low-resource settings, gender inequality can exacerbate health problems such as stunting, as unequal power relations between men and women often lead to suboptimal health decisions (Tinaningsih et al., 2022). The role of gender in shaping health behaviours has been widely recognised in studies of immunisation and child health interventions, where both maternal and paternal involvement are critical to improving health outcomes (Gerend et al., 2008; Grinberg & Sela, 2021). These findings suggest that while HBM has traditionally focused on individual decision making, the inclusion of gendered communication can enhance the model by addressing the broader social influences on health behaviour.

This study builds on these findings by incorporating gender-responsive communication into the HBM framework, suggesting that when both partners

are equally involved in health-related decisions, such as monitoring maternal and child health, the likelihood of successful stunting prevention increases. The inclusion of gender-responsive communication recognises that in patriarchal communities, health-related decisions are predominantly made by the head of the household, typically the husband, who is often not exposed to relevant information about child health (Andung et al., 2025). Thus, this research extends the HBM by showing that the likelihood of individuals adopting health-promoting behaviours is influenced not only by their health concerns, sense of vulnerability, and trust in health advice, but also by prevailing gender norms in society. These norms play a crucial role in shaping how health risks, such as stunting, are perceived and acted upon within families and communities.

By embedding the Health Belief Model within a gender-responsive health communication framework, this study emphasises the need for joint, gender-balanced decision-making on health issues. The findings highlight the importance of involving both partners, especially husbands, in health decision-making, which can increase the effectiveness of stunting prevention interventions. Therefore, this research contributes to existing HBM theory by extending its scope to include gender norms, providing a more holistic understanding of health behaviour in patriarchal societies where decision-making is often gendered.

CONCLUSION

In conclusion, the causes of stunting cases in the community in South Central Timor Regency, East Nusa Tenggara Province, Indonesia were due to health factors such as malnutrition and poor sanitation, as well as traditional beliefs in the form of myths affecting the delay in decisions and actions to access available health services. Furthermore, the low inclusion of fathers or husbands in ensuring family health was a social factor contributing to inadequate parenting practices. Gender imbalances in family roles also affected the compliance of wives or mothers in accessing health checks in proper parenting practices. Gender-responsive health information literacy is therefore one of the solutions to reducing stunting. In a society with a patriarchal culture, providing health information to husbands has a major impact on family decisions to combat stunting.

Implications of the Study

This study shows how, in societies with a strong and dominant patriarchal culture, women often remain marginalized in their ability to influence their health status. The prevailing societal and cultural norms designate men or husbands as primary breadwinners, allocating their time, attention, and energy to fulfill the family's economic needs. Consequently, the responsibility for family health falls disproportionately on women. The findings underscore the urgent need to promote gender equality awareness, especially within households, to ensure that responsibilities for family

health are equitably shared between men and women. Involving husbands in monitoring and ensuring the health status of mothers and children is a must to reduce stunting in rural areas.

Limitations and Recommendations for Future Research

This study was conducted in only one of the villages with the highest levels of stunting in South Central Timor Regency, East Nusa Tenggara Province, Indonesia. However, if this research were to be extended to more villages, it would be possible to obtain data with a high level of diversity. Therefore, it is recommended that further research be conducted with at least 3 comparison villages, namely those with high, medium, and low stunting cases. Another limitation of this study is the relatively short observation period for monitoring gender relations in rural farming households. It is recommended that future research should extend the observation period in order to obtain a more comprehensive perspective of gender relations as they occur in farming households. This is important to understand how gender communication plays a role in supporting health communication in the household.

It is therefore recommended that the South Central Timor Regency Government extend the Fathers as Counsellors Movement Program to other rural areas with high stunting rates. In addition, the local government, in collaboration with non-governmental organisations, needs to conduct advocacy to raise awareness of the

importance of gender equality in addressing health issues and programmes, starting from the family environment to the wider community.

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A Corpus-based Lexical Study of Agricultural Sciences in Open and Distance Learning Coursebooks

**Hamisu Hamisu Haruna¹, Azza Jauhar Ahmad Tajuddin^{2*}, and
Wid Zuriana Sulaiman³**

¹*Department of English, Al-Qalam University Katsina, 820102 Katsina, Nigeria*

²*Center of Fundamental and Continuing Education, Universiti Malaysia Terengganu, 21030 Kuala Nerus, Terengganu, Malaysia*

³*Marine Conservation and Research Organisation Malaysia (PULIHARA), Lang Tengah Island, 21090 Terengganu, Malaysia*

ABSTRACT

Lexical knowledge is extremely important for learning success, especially in Open and Distance Learning (ODL), where students use printed texts as their main source of learning information. Although studies have indicated a favourable correlation between vocabulary and academic achievement, especially in advanced subjects such as agricultural sciences, recent research has not yet adequately addressed the lexical challenges in agricultural ODL coursebooks. This study involved a corpus analysis of 1.4 million words from five agricultural sub-disciplines at the National Open University of Nigeria (NOUN). Nation's British National Corpus and Corpus of Contemporary American English (BNC/COCA) word lists and Coxhead's Academic Word List (AWL) were used to analyse the lexical coverage required for comprehension thresholds of 95% and 98%. The results show that ODL students require 8,000–9,000 word families for independent reading and that the supplementary lists comprise 1.91% of the required word families. The AWL coverage remained stable across all levels (9.42%-11.75%), indicating a homogeneous academic lexical profile. Limitations include the focus on a single subject area and the reliance on corpus analysis. The findings from this study allow for targeted vocabulary instruction that integrates subject-specific terms, a balanced approach to academic vocabulary acquisition, evidence-based curriculum design, and learner support initiatives. This study makes a valuable contribution by identifying the specific

lexical needs of students, creating relevant and comprehensible course materials, and thereby improving the quality of agricultural education in ODL learning environments.

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E-mail addresses:

hhhamisu@gmail.com (Hamisu Hamisu Haruna)

azzajauhar@umt.edu.my (Azza Jauhar Ahmad Tajuddin)

wid@pulihara.org (Wid Zuriana Sulaiman)

* Corresponding author

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INTRODUCTION

Lexical knowledge is a component that is widely recognised in the academic community as having an impact on text comprehension and overall academic performance, especially in a higher education context (Haruna et al., 2024a; Mugadza et al., 2024; Nation, 2001). However, this relationship becomes even stronger in subject areas where writers tend to use specialised words, such as agricultural sciences, where terms and expressions about the subject area are overused (Hyland & Tse, 2007). The challenge described above is exacerbated in the context of Open and Distance Learning (ODL), where the main form of communication is mainly in written form, making it very important to understand words in their lexical sense (Maphosa & Maphosa, 2023; Yang, 2023).

Although agricultural sciences encompass a wide range of disciplines, sub-disciplines such as fisheries, crop science, etc. entail a variety of lexical variations. Each sub-discipline within the field of study, be it agricultural economics, aquaculture, animal science, agricultural extension, or crop science, has its own reserved terms that go along with the uniqueness of the sub-discipline and encompass concepts, processes, and technologies. These lexical variations pose a major learning problem for students, especially those studying in ODL, as they lack scaffolding. Thus, knowledge of lexical features is crucial, especially in the ODL context where a lack of vocabulary knowledge can hinder comprehension, hinder students' interaction with the course content,

and thus affect students' academic success (Haruna et al., 2024b; Townsend et al., 2012).

The agricultural sciences programmes of NOUN, a leading ODL institution, cater to the various needs in the subject area. Normally, it is coursebooks that serve as the vehicle for the delivery of primary knowledge in the virtual classrooms, hence the need to optimise the lexical option. However, while there has been a proliferation of corpus-based lexical studies in various disciplines (Hyland & Tse, 2007), it is evident that there is a dearth of similar studies on ODL texts in agricultural sciences (Bozkurt, 2019). This is worrying, especially when ODL students, who are mostly working and have family responsibilities, rely on self-study using these texts.

Therefore, corpus linguistics, as research of this kind, provides solid and systematic tools for analysing the lexical features of academic text (McEnery & Hardie, 2011). Using word lists based on large corpora such as the BNC/COCA 25000 by Nations (2012), one can determine the vocabulary profile of a particular text to understand the text. Nation (2006) postulated that knowledge of 98% of words is sufficient for unassisted comprehension.

In addition, an important but relatively understudied area of ODL has been identified, namely lexical development, i.e., the increase in lexical demands with an increasing year of study and course level. According to Nagy and Townsend (2012), a good syllabus should show the lexical density of expected academic language

as students progress through the course level. In terms of progression from one course level to the next, such progression is expected in NOUN's four-level agricultural sciences programme (level 200 to 500), but researchers have not gathered empirical evidence for this.

Prompted by these concerns, this research aims to fill these gaps by conducting a corpus-based lexical analysis of Agricultural Sciences Coursebooks (ASCs) in NOUN. The analysis sources were cumulative and comprised large amounts of data: 1.4 million running words from 64 coursebooks in five major sub-disciplines: Agricultural Economics and Agro-business, Aquaculture and Fisheries Management, Animal Science, Agricultural Extension and Management, and Crop Production.

Therefore, this study contributes to the current literature and represents several important advances for the field. First, it provides guidelines for analysing difficulties learners may have in reading and for understanding the lexical complexity of texts used in ODL agricultural sciences courses. Secondly, it highlights specific words that pave the way for targeted learning in this field, and thirdly, by looking at lexical development, researchers provide suggestions for curriculum developers on how to design the development of language density at different levels. Thus, this study not only fills an important gap in the field of corpus-based research but also improves ODL practices in agricultural sciences. As these disciplines become increasingly important for the world's food supply and

the ability to feed it sustainably (FAO, 2018 in Kramar et al., 2020), lexical indexing of ODL materials is anything but an intellectual endeavour (Mojtahedzadeh et al., 2024) as it is a method of preparing the next generation of farmers.

LITERATURE REVIEW

Vocabulary Load

Studies on vocabulary, such as Hu & Nation (2000) and Nation (2006), have looked at the vocabulary load—the percentage of known words one must know—for unaided reading comprehension. It refers to a concept in corpus linguistic research that is central to second language acquisition. It has been used as a measure of academic literacy, particularly in the context of text comprehension (Nation 2006; Haruna et al 2024a). It is linked to Laufer's (1989) lexical frequency hypothesis, which states the threshold of word recognition that the reader must reach to comprehend the text. Thus, the concept of 'lexical load' emanates from 'the lexical frequency analysis', in which the number of 'known words' is used as a measure for assessing the difficulty of a text. In this regard, lexical density has emerged as one of the decisive criteria for evaluating texts, and many studies provide evidence for the text difficulty hypothesis. It is therefore important to understand lexical load to determine the vocabulary density required to comprehend written content in academic writing.

In light of the above, readers need to know 98% of the running words to understand a written text without aids,

with one unknown word out of fifty being readable (Nation, 2006). This figure is equivalent to being able to recognise around 8000 to 9000 word families for most written texts. However, for materials such as novels or newspapers, it has been found that the amount practised can go as high as 98-99%, which would require a vocabulary of over 8000-9000 word families (Ibrahim et al., 2018; Kramer, 2023). These results attest to the high level of vocabulary required of readers, particularly in academic settings.

Thus, to calculate the measure of lexical density, it is necessary to use word lists drawn from large, representative samples. One of the earlier attempts to classify vocabulary was made in the West's General Service List (GSL) (1953), but the list is now rather outdated and also small in size, containing only about 2000 word families. The BNC/COCA lists by Nation (2012) contain a vocabulary frequency-based word list with 25000 word families classified according to forms, levels, and frequencies. They are now considered an important tool for carrying out lexical load analyses and provide a more detailed insight into the distribution of words in frequency segments.

Previous Studies on Vocabulary Load

Extensive research has investigated lexical coverage thresholds in different contexts, revealing important insights into the vocabulary requirements for effective reading comprehension. Hirsh and Nation (1992) investigated lexical load using a

corpus-based approach on a representative sample of novels and found that the GSL for novels indicates that the reader must recognise about 5000 word families to read them. Although this study provided important initial findings, the analysis was conducted on a rather small corpus compared to the present corpus. Hsu (2014) also used BNC/COCA lists to analyse the complexity of English-language textbooks for engineers. His study found that with 5,000 words, only a comprehension level of 95.5% could be achieved, which was not sufficient for independent reading. Therefore, Hsu called for tutors to use specialised word lists to conduct effective writing tutoring sessions and help engineering students find the vocabulary they need.

Recent studies (such as Haruna et al., 2024c) have used the Nation's BNC/COCA frequency lists to examine the lexical load of learning materials and uncovered information that may be useful in curriculum development and vocabulary pedagogy. In his study, Nguyen (2020) identified the instructionally relevant words in thirty units of English texts used by high school students in Vietnam. The results showed that for better reading comprehension, 95% and 98% of the texts must be understood to attain 3000 and 5000 word families, respectively. Interestingly, these requirements exceeded the students' estimated vocabulary growth to the usual 2000 word families. Additionally, the courses limit the extent to which learners encounter new words in the textbooks, which naturally restricts the learning of these terms.

In addition to Nguyen (2020) and Sun and Dang (2020) investigated the lexical density of a high school series textbook in China. Using Nation's BNC/COCA lists as the basis for the UVLT Webb et al. (2017), the researchers compared the scope of the textbooks with the vocabulary repertoire of 265 high school students. It was found that a word family of 3000 and 9000 existed for 95% and 98% coverage, respectively. Overall, these studies emphasise the role of vocabulary in materials used for language learning and its contribution to students' knowledge. They can also be used as a source of empirical evidence for curriculum development and vocabulary teaching. Considering the mentioned values of key terms and comparing them with lexical features and possible gaps, important recommendations for teachers can be made: It is therefore crucial to develop interventions that promote the use of the most frequent and important words to help children understand academic texts with the help of vocabulary expansion.

Although these studies have contributed much to the knowledge of lexical density in different text types and genres, they also have limitations. Most of them have emerged from earlier word lists, such as the GSL, or have been produced in a very specific domain that does not lend itself well to generalisation. There is also a bias towards exploring the conventional classroom or work-related environment, while new forms such as ODL are excluded or marginalised. The practice of ODL poses particular lexical difficulties for the teaching

and learning process. In contrast to face-to-face teaching, where a teacher usually explains only a few unfamiliar terms, ODL students rely mainly on written work (Musingafi et al., 2015; Simpson, 2018). This revealed that there is not much research on lexical load that focuses specifically on the ODL context.

The gap is most obvious when it comes to specialised fields such as agricultural sciences. Since agricultural sciences encompass several subfields, ranging from economics to crop science, the language used in the discipline is both profound and complex (Palanichamy, 2021), due to its specific terminology that can contribute to lexical load. As agriculture is an important sector in the fight against global problems such as hunger (FAO, 2018, in Kramar et al., 2020), ODL materials should be lexically accessible. Nevertheless, the corpus-based study of lexical coverage in ODL coursebooks for agricultural sciences has not yet been conducted.

This study is intended to lexically analyse the Agricultural Sciences Corpus (ASCs) from a major ODL institution in West Africa. Using Nation's (2012) BNC/COCA lists for this large, multidisciplinary corpus, the study would provide, for the first time, empirical evidence of the vocabulary needed in this important field. These findings can be used to assist ODL curriculum designers in designing vocabulary to provide future agricultural professionals with comprehensive access to the knowledge base in their discipline. For clarity purposes, the study investigates

the lexical load of ASCs with 95% and 98% coverage to answer the following research questions:

RQ1: What is the level of difficulty of the NOUN coursebooks for agricultural sciences in terms of vocabulary load, and does this change across levels?

RQ2: How has Coxhead's AWL been integrated into the coursebooks?

RQ3: What are the differences in the coverage of Coxhead's AWL across the levels?

MATERIALS AND METHODS

Research Design

In this study, a quantitative corpus-based research design was used to systematically investigate the lexical load and distribution of academic vocabulary in agricultural sciences coursebooks used in open and distance learning (ODL). The study followed a descriptive-analytical approach and utilised corpus linguistic methodology as the primary research tool. The corpus was designed following the principles of balance, representativeness, and size in corpus linguistics (McEnery & Hardie, 2011). For this analysis, the coursebooks had to meet two selection criteria: first, they had to be core materials, meaning they had to come from the agricultural sciences curriculum at NOUN. Second, the coursebooks had to cover the five major strands of the programme and contain a sufficient variety of texts within these strands to analyse the lexical load in this complex and diverse field. Therefore, texts from such diverse but interrelated areas were included in the

corpus to cover the wide variety of terms in the vocabulary of agricultural sciences in areas such as biology, management, and technology.

The study consisted of three phases, which were oriented towards the research questions. Phase 1 profiled the vocabulary in the ASCs using Nation's (2012) BNC/COCA word lists to examine the level of difficulty of the NOUN agricultural sciences course books in terms of vocabulary coverage. Phase 2 examined Coxhead's AWL in ASCs. Phase 3 compared the coverage of ASCs at different levels. The analytical framework was developed to provide evidence-based answers to each research question through systematic quantitative comparisons and descriptive statistical analyses.

The Corpus

The researchers compiled 64 ASCs from five sub-disciplines, totalling around 1.4 million words (Table 1). All coursebooks were downloaded from NOUN e-courseware. Using Anthony's AntFileConverter (2022), all texts that were available in PDF form were downloaded into and converted to txt format. After the file conversion, the data was further cleaned manually by removing preliminary pages, tables, references, captions, and appendices from the documents. The pre-processing of the texts was of crucial importance for the present study, as it helps to normalise the corpus and prepare it for analysis. This is in line with previous empirical studies such as Benson and Coxhead (2022) and Lu and Coxhead (2020).

Table 1
Word counts in the ASC corpus

Sub-disciplines	Number of books	Number of words
Agricultural Economics and Agro-Business	12	301525
Aquaculture and Fisheries Management	14	335208
Animal Science	13	305925
Agricultural Extension & Management	13	280652
Crop Science	12	251542
Total	64	1,474,852

The difference in the number of books in each subject (12-14 books per subject) is due to the availability and format of these coursebooks under the current system of the National Open University of Nigeria. This slight imbalance is perfectly acceptable and is part and parcel of real-life teaching, which serves to enhance the ecological validity of this study. Also, the inclusion of texts from these different but related fields ensures that the corpus captures the richness of the agricultural lexicon with terms from economics, biology, management, and technology. In compiling the corpus, attention was therefore paid to its representativeness, specificity, full-text availability, and availability in electronic form.

Data Analysis

In this study, the BNC/COCA lists of 25000 words and the other supplementary lists recommended by Nation (2017) were used. AntWordProfiler (Anthony, 2021) is used for corpus-based lexical analyses. When processing the texts, the analysis software generated dense output files describing the tokens and the extent to which the words they spanned corresponded to each frequency level. The above results were

used to develop the overall coverage of tokens, an important concept in addressing the vocabulary load issues in the study. These lists were modified and adapted to comprehensively cover all vocabulary in the coursebooks.

The researchers also compared the revised lexical density scores within the different academic levels of the programme. This research aimed to ascertain whether learners’ use of challenging words varies as they advance through the educational system. Lastly, the researchers used Coxhead’s (2000) AWL to examine the distributions of words in the corpus.

RESULTS AND DISCUSSION

RQ1: What is the Level of Difficulty of the NOUN Coursebooks for Agricultural Sciences in Terms of Vocabulary Load, and does this Change with the Level?

Analysing the vocabulary in the ASCs using Nation’s (2012) BNC/COCA word lists provides valuable insights into the lexical demands faced by ODL students in this area. Table 2 shows a nuanced breakdown of coverage by frequency band, revealing both encouraging and worrying trends.

Table 2
Lexical loads of ASC using Nation's (2012) BNC/COCA base word list

BNC/COCA base list	Coverage (%)	Cumulative percentage without supplementary lists	Cumulative percentage with supplementary lists	Examples
1 st 1000	65.26	65.26	67	<i>The, of, and, to, in, a, are...</i>
2 nd 1000	13.94	79.2	80.94	<i>Product, develop, unit, process...</i>
3 rd 1000	10.71	89.91	91.65	<i>Agriculture, extension, rural, method...</i>
4 th 1000	2.22	92.13	93.87	<i>Acid, nutrition, digest, tutor...</i>
5 th 1000	1.33	93.46	95.2	<i>Nutrient, enzyme, elastic, carbohydrate...</i>
6 th 1000	0.83	94.29	96.03	<i>Poultry, ecosystem, aquatic, secrete...</i>
7 th 1000	0.62	94.91	96.65	<i>Amino, glucose, soluble, forage...</i>
8 th 1000	0.42	95.33	97.07	<i>Maize, biodiversity, swine, ovary...</i>
9 th 1000	0.25	95.58	97.32	<i>Lipid, phosphorus, uterus, semi...</i>
10 th 1000	0.24	95.82	97.56	<i>Semen, fowl, doe, inter...</i>
11 th 1000	0.23	95.05	97.79	<i>Husbandry, inseminate, lactate, yam...</i>
12 th 1000	0.17	96.22	97.96	<i>Chromatography, hutch, ovum, faeces...</i>
13 th 1000	0.16	96.38	98.12	<i>Cassava, anova, testes, agribusiness...</i>
14 th 1000	0.15	96.53	98.27	<i>Ruminant, silage, aquaculture, fructose...</i>
15 th 1000	0.1	96.63	98.37	<i>Glycogen, hydrolysis, lysine, hypothalamus...</i>
16 th 1000	0.08	96.71	98.45	<i>Dehydrogenase, methionine, polysaccharide, mammary...</i>
17 th 1000	0.09	96.8	98.54	<i>Estrous, groundnut, glycerol, spermatozoon...</i>
18 th 1000	0.06	96.86	98.6	<i>Pullet, rumen, oviduct, follicular...</i>
19 th 1000	0.05	96.91	98.65	<i>Farrow, analyte, cowpea, evapotranspiration...</i>
20 th 1000	0.05	96.96	98.7	<i>Allele, oestrus, pyruvate, parturition...</i>
21 st 1000	0.04	97.00	98.74	<i>Socio, ketone, galactose, gravimetric...</i>
22 nd 1000	0.02	97.02	98.76	<i>Poult, dehorn, leptospirosis, punnet...</i>
23 rd 1000	0.02	97.04	98.78	<i>Luteum, cryopreservation, chroma, hexose...</i>
24 th 1000	0.02	97.06	98.8	<i>Agro, cobby, cuboidal, amniotic...</i>
25 th 1000	0.02	97.08	98.82	<i>Monosaccharide, maltose, hydrolyte, hygrometer...</i>
Proper nouns	0.66			<i>Nigeria, Africa, America, Europe...</i>
Marginal words	0.49			<i>E, g, b, c...</i>
Transparent compounds	0.36			<i>Livestock, rainfall, runoff, wildlife...</i>
Abbreviations	0.23			<i>ATP, LB, WIA, AI...</i>

The results of the present study in relation to the lexical load of agricultural sciences course books (ASC) based on Nation's BNC/COCA word lists (2012) provided valuable information about the lexical load typical of ODL students. In this study, the first 1,000 most frequently used words covered 65.26% of the given corpus, supporting Nation's (2006) claim about the role of high-frequency words in reading. The second 1000-word families accounted for a further 24.65%, emphasising the role of mid-frequency vocabulary in academic texts. Also, the third 1000-word family had a high percentage of 10.71%. This high percentage may be connected to the high number of agriculture-related terms.

In addition, the study found that the first 5000 most frequently used word families covered only 93.46%, below the expected 95% for minimal comprehension as reported by Laufer and Ravenhorst-Kalovski (2010). This opinion echoes the conclusions of Hsu (2014) on the need to have 5000 words to analyse the frequency of words used in engineering textbooks. This means that it may be difficult for ODL students to understand courses such as agricultural sciences if their vocabulary is limited to 93.46%. However, when the supplementary lists are included, hits reach 95.20% at the fifth 1000-word family level. This corresponds to the minimum threshold formulated by Laufer and Ravenhorst-Kalovski (2010), according to which knowledge of around 5000 word families, together with supplementary lists, should be sufficient to understand the given

coursebooks. However, the subsequent frequency ranges do not show a similar proportional increase in coverage, with the 6th to 25th 1000-word families showing a coverage rate of 3.81%. This suggests that while there may be a feature of low-frequency words, their overall contribution to comprehension is not proportionate.

Furthermore, as the study suggests, supplementary lists play a key role in attaining comprehension thresholds, emphasising the role of disciplinary as well as specialised vocabulary. This is consistent with the study by Vuković-Stamatović and Čarapić (2024). This means that the supplementary lists are indispensable for increasing lexical differentiation and the relevance of the corpus of ASCs for teaching. When comparing the cumulative coverage listed in Table 2, one can observe a considerable variation depending on whether the sources of the supplementary lists were included or not. Without the use of supplementary lists, the coverage stops at 96.91% for 19000 word families, which is below the 98% level recommended by Laufer and Ravenhorst-Kalovski (2010) for unaided comprehension. However, when the supplementary lists are added, the overall percentage rises to 98.82%. Thus, analysing the results showed that the effectiveness of these supplementary lists increased by 1.91%. These supplementary lists help to fill the lexical gap by presenting some of the domain-specific terms, technical abbreviations, and multi-word units that are missing from the coursebooks, thus providing learners with the necessary

vocabulary to understand the coursebooks independently.

Comparing the results of this study with the findings presented in the literature, important points can be made. First, the findings support the idea that high-frequency words are generally relevant in different fields, including engineering (Hsu, 2014) and agricultural sciences. This implies that, regardless of discipline, a strong foundation in high-frequency words is crucial for academic success. Second, the study adds to previous research by providing new estimates for the number of word families for efficient reading, requiring 13,000 word families. This shows that agricultural sciences may have more lexical features than other domains, making it necessary for the curriculum designers and teachers in ODL agricultural sciences programmes to invest more time and effort in vocabulary development in this domain. This helps in ensuring fair representation of general academic terms and specialised terms. Such deployment enhances differentiated support to ensure that ODL students understand the subject matter and excel academically in the content area in question. Table 3 shows lexical loads of ASC across the four levels.

Regarding Table 3, which shows the distribution of the lexical load across different levels, 200, 300, 400, and 500, we can make certain assumptions and see the fluctuations and trends. The lexical loads common to each of the four academic levels of 200, 300, 400, and 500 showed varying levels of word complexity. First, the cumulative percentage of coverage in

the 200-level text data reached 95% at the 5th 1,000-word family, which is typical of the data for the entire corpus.

At the 200 level, a certain cumulative coverage gets to 95% at the 5th 1000-word family, which again correlates with the overall corpus data. However, in the 300 and 500 levels, this target is achieved at the fifth 1000-word family, while for the 400 level, it is achieved at the sixth 1000-word family. This variation implies that it is possible to find slight differences in the extent to which lexical load differs in the coursebooks at various levels where language is being taught and practiced. This is in line with Sun and Dang's (2020) study on high-school EFL textbooks, which reveals that text simplification can result from form-focussed instructions. However, to attain the 98% optimum threshold, a more distinct pattern is observed. To reach this level in all four levels, students need to know between 8000 and 9000 word families, which are evidently in concordance with the overall assessment of the corpus.

It is essential to note that level 200 has the highest threshold, as 98.52% was only attained at 17000. This is followed by level 400 with 98.01% at 13000, while 300 and 500 levels are slightly behind with 98.14% and 98.02% at 13000 and 10000, respectively. Thus, although there are slight differences in terms of overall words used, the density is slightly higher, which may suggest that students at the highest academic level could benefit from further lexical support. In this respect, these findings are consistent with Nagy and

Table 3
Lexical loads of ASC across the four levels

	Level 200		Level 300		Level 400		Level 500	
	%	Cum %	%	Cum %	%	Cum %	%	Cum %
BNC/COCA base word								
Proper nouns	0.52	0.52	0.74	0.74	0.54	0.54	0.8	0.8
Marginal words	0.41	0.93	0.56	1.3	0.43	0.97	0.53	1.33
Transparent compounds	0.33	1.26	0.4	1.7	0.32	1.29	0.39	1.72
Abbreviations	0.21	1.47	0.32	2.02	0.21	1.5	0.17	1.89
1 st 1000	66.48	67.95	64.48	66.5	65.92	67.42	64.32	66.21
2 nd 1000	13.87	81.82	14	80.5	13.45	80.87	14.32	80.53
3 rd 1000	9.63	91.45	11.31	91.81	9.68	90.55	12.02	92.55
4 th 1000	2.25	93.7	2.17	93.98	2.37	92.92	2.11	94.66
5 th 1000	1.3	95	1.34	95.32	1.39	94.31	1.29	95.95
6 th 1000	0.83	95.83	0.87	96.19	0.86	95.17	0.76	96.71
7 th 1000	0.67	96.5	0.56	96.75	0.76	95.93	0.53	97.24
8 th 1000	0.42	96.92	0.38	97.13	0.48	96.41	0.41	97.65
9 th 1000	0.3	97.22	0.22	97.35	0.32	96.73	0.19	97.84
10 th 1000	0.25	97.47	0.25	97.6	0.28	97.01	0.18	98.02
11 th 1000	0.26	97.73	0.2	97.8	0.29	97.3	0.19	98.21
12 th 1000	0.16	97.89	0.18	97.98	0.19	97.49	0.14	98.35
13 th 1000	0.15	98.04	0.16	98.14	0.18	97.67	0.16	98.51
14 th 1000	0.17	98.21	0.13	98.27	0.21	97.88	0.1	98.61
15 th 1000	0.11	98.32	0.08	98.35	0.13	98.01	0.07	98.68
16 th 1000	0.09	98.41	0.08	98.43	0.1	98.11	0.05	98.73
17 th 1000	0.11	98.52	0.07	98.50	0.13	98.24	0.07	98.8
18 th 1000	0.08	98.6	0.04	98.54	0.09	98.33	0.05	98.85
19 th 1000	0.05	98.65	0.07	98.61	0.06	98.39	0.04	98.89
20 th 1000	0.07	98.72	0.06	98.67	0.08	98.47	0.02	98.91
21 st 1000	0.04	98.76	0.04	98.71	0.04	98.51	0.03	98.94
22 nd 1000	0.02	98.78	0.02	98.73	0.02	98.53	0.02	98.96
23 rd 1000	0.02	98.80	0.02	98.75	0.03	98.55	0.02	98.98
24 th 1000	0.02	98.82	0.01	98.76	0.02	98.57	0.02	99
25 th 1000	0.03	98.85	0.01	98.77	0.03	98.6	0.01	99.01
Off lists	1.17		1.2		1.38		0.98	

Townsend’s (2012) view that appropriate curricula should feature ascending levels of vocabulary complexity. Nonetheless, the differences between levels in the ASC corpus suggest a smoother linguistic differentiation,

demonstrating that there is a more gradual progression across the levels.

These findings for lexical load across academic levels have several implications for this study and the previous studies,

both quantitatively and qualitatively. First, the relatively gradual rise in the rate of lexical development in agricultural sciences compared to such disciplines as medicine (Wang et al., 2008) indicates that it may be necessary to use a different strategy in teaching the vocabulary that belongs to the investigated interdisciplinary field. Thus, breaking the learning of new words across the academic spectrum may prove helpful, but it also translates to the fact that advanced learners may require extra help to acquire more specialised vocabulary in a given area. Consequently, the differences between levels suggest that there might be the potential to provide for more purposeful lexical development as learners advance through learning.

Furthermore, Musingafi et al.’s (2015) results regarding ODL students’ vocabulary deficiencies highlight the importance of finding ways of remediating weak vocabulary knowledge among distance learners. This is especially important in contexts such as agricultural sciences, for instance, where the percentage of high frequency increases with level, but lexical complexity remains high. From these results, ODL programmes in agricultural sciences should consider implementing vocabulary interventions such as developing specialised

words as well as using technology and materials to supplement instructors’ real-life word explanations.

RQ2: How Has Coxhead’s AWL Been Integrated into the Coursebooks?

The results of Coxhead’s (2000) AWL in ASCs provide relevant information about the academic vocabulary in this field. Table 4 summarises the overall analysis of the prevalence of Coxhead’s AWL in the corpus.

As shown in Table 4 above, it is crucial to note that GSL comprises a much higher number of general English words, amounting to 76.89% of the corpus. After GSL, AWL has taken a significantly large proportion of 10.53%. Overall, Coxhead’s AWL has coverage of 568 word families out of 570. This study is consistent with Coxhead’s (2000) observation that the AWL includes many of the most essential words in a wide range of content areas. This shows that the ASC corpus (although slightly higher) aligns with Haruna et al. (2024b) on first-year university coursebooks, Wang et al. (2008) on medical textbooks, and Martínez et al. (2009) in the agrocorpus, which were 9.1% and 9.06% respectively. This indicates that the level of difficulty in these specific domains is comparable. However, the coverage rate of AWL in the

Table 4
Coverage of GSL and AWL in ASC

Word Lists	Token	Coverage %	Word Family	Examples
GSL	1134005	76.89	1895	<i>The, of, and, to, in, is, a, are, or, for...</i>
AWL	155236	10.53	568	<i>Process, method, area, vary, Require...</i>
Off Lists	185611	12.58	20601	<i>Rural, objectives, feed, Nigeria...</i>
Total	1474852	100%		

ASC corpus is lower compared to 12.3% in Hsu (2014) with respect to engineering textbooks. This may be influenced by the marked disciplinary differences in each field and may be due to the differences in the corpora used in these analyses.

This suggests how relevant AWL in the ODL context is, especially in agricultural sciences, given the marked contribution that AWL makes to the overall vocabulary load. Among the most frequently used AWL words are “process”, “method”, “area”, “economy”, and “vary”, which indicate the interdisciplinary character of agricultural sciences. It is to be expected that such words occur more than once in each sub-discipline, as they are used to convey concepts and promote academic discussions.

RQ3: What Differences are There in the Coverage of Coursebooks across Different Levels?

To answer this research question, Table 5 compares the coverage of AWL lexical

units within the selected text set at different academic levels, such as 200, 300, 400, and 500. It is noticeable that the trends in the coverage of AWL at different levels do not differ drastically, as they range from the lowest 9.42% at the 400 level to the highest 11.75% at the 500 level.

This suggests that the language used in the coursebooks is consistent across the academic levels of the students, indicating that a higher categorisation does not always translate into a larger requirement for the usage of academic vocabulary. Thus, one may predict an increase in the density of academic words at higher levels.

This result contradicts the study by Wang et al. (2008), which found that the coverage of AWL in medical textbooks increases from lower to higher levels. This could explain the observed discrepancy, as agricultural sciences, as a field of study, involves the integration of different areas of academic language, possibly leading to more standardised usage. In this case,

Table 5
Coverage of GSL and AWL in ASC across the four levels

	Level 200	Level 300	Level 400	Level 500	Total
GSL tokens	304864	303703	233928	291510	1134005
	77.66%	69.94%	77.11%	76.36%	76.89%
	(26.88%)	(26.78%)	(20.63%)	(25.71%)	100%
AWL tokens	38267	43535	28578	44856	155236
	9.75%	10.96%	9.42%	11.75%	10.53%
	(24.65%)	(28.04%)	(18.41%)	(28.90%)	100%
Off Lists	49449	49915	40849	45398	185611
	12.6%	12.57%	13.47%	11.89%	12.59%
	(26.64%)	(26.89%)	(22.01%)	(24.46%)	100%
Total tokens	392580	397153	303355	381764	1474852
	100%	100%	100%	100%	100%
	(26.62%)	(26.93%)	(20.57%)	(25.88%)	(100%)

it can also be seen that the 500-level has the highest proportion of AWL at 11.75%, suggesting that the frequency of academic words in the final level may increase slightly at best. However, the difference is not very large, and in order to obtain more precise details, a very in-depth analysis is required to determine the exact statistical measure.

It is interesting to note that there is significant engagement with AWL across all levels in the ASC corpus. This could be seen as both an opportunity and a challenge for ODL students of agricultural sciences. On the one hand, the relatively stable nature of academic vocabulary requirements may be an advantage in that it provides opportunities for improved direct vocabulary instruction and intervention, as students are not constantly exposed to significantly different lexical contexts. On the other hand, the lack of enhanced progressions may limit opportunities for the natural development of academic vocabulary through exposure to advanced words in texts (Hyland & Tse, 2007). In this context, and in comparison to conventional face-to-face learning materials, the findings revealed the differences in lexical demand for academic vocabulary across levels.

IMPLICATIONS AND CONCLUSION

This corpus-based analysis shows that lexical accessibility in ODL environments is a critical challenge, while at the same time academic vocabulary demands remain unexpectedly stable across educational levels — findings that call for a fundamental

reconceptualisation of vocabulary instruction and course design in distance learning contexts. The study found that the highlighted words of the most frequent 1000 word families provide a fairly comprehensive coverage of 65.26% of the ASC corpus. Nevertheless, this failed to achieve the 95% comprehension rate advocated by Laufer and Ravenhorst-Kalovski (2010). The relevance of supplementary lists was also noted, which increased the overall coverage of the list to 98.82% for optimum reading comprehension.

Moreover, the AWL coverage was found to mean that these words accounted for approximately 10.53%. This result is consistent with the notion that the academic vocabulary of ODL students is overwhelming (Haruna et al., 2024c; Liu, 2023). The study also found that GSL had a larger linguistic scope in the corpus studied (76.89%), but AWL played an important role in capturing subject-specific concepts and processes. This means that lexical density is fairly constant across grade levels, implying that the ASC coursebooks do not show greater compositional density as learners progress. This stable academic vocabulary demand could help to introduce and support ODL students' vocabulary knowledge and usage.

Theoretical Implications

The results of this study make important theoretical contributions to several areas of ODL research, particularly to improving our understanding of lexical accessibility theory and cognitive load theory in self-

directed learning contexts. First, the results provide empirical support for Nation's (2006) vocabulary threshold theory in ODL environments by showing that the 5,000-13,000 word family requirements for independent reading comprehension in agricultural sciences are consistent with theoretical predictions for specialised academic discourse. This finding extends threshold theory beyond the traditional contexts of face-to-face learning and confirms its applicability in distance education, where learners must achieve comprehension autonomously without immediate instructor mediation.

Second, the observed lexical stability across academic levels (AWL coverage 9.42% - 11.75%) challenges the prevailing assumption in academic educational theory that vocabulary complexity should progressively increase with educational progress. This finding contributes to scaffolding theory in ODL by suggesting that consistent lexical demand may actually promote learner autonomy and self-regulation, core principles of distance education theory (Moore, 1993). The stable lexical profile supports Holmberg's theory of guided didactic conversation, in which consistent access to vocabulary enables sustained learner engagement with course materials.

The study advances transactional distance theory (Moore, 1993) by providing quantitative evidence of how lexical factors influence the psychological and communicative space between learners and content in ODL contexts. The high

frequency of discipline-specific terms (supplementary lists comprising 1.91% of required word families) shows how specialised vocabulary can either bridge or increase transactional distance, depending on learners' lexical preparation

Finally, the results contribute to the theory of cognitive load (Sweller, 1988) in ODL environments by showing how vocabulary accessibility affects intrinsic cognitive load. The 8,000-9,000-word family requirements suggest that inadequate lexical knowledge may lead to excessive cognitive load that impairs learners' ability to effectively process agricultural concepts in self-directed learning scenarios.

Practical Contributions

The present study has practical contributions for curriculum and pedagogy in ODL contexts. First, more specific approaches to the selection and use of words and the nature of materials and instructions are needed. Since ODL students work through these materials independently without direct teacher support (Haruna et al., 2025; Musingafi et al., 2015), the formal introduction of these terms would contribute to students' overall comprehension and performance.

Specifically, ODL institutions should establish a systematic vocabulary profile when developing courses to ensure that materials provide optimal lexical accessibility while maintaining disciplinary authenticity. Course designers should prioritise the integration of high-frequency academic vocabulary (AWL) at the

beginning of programme sequences, as it is represented at 10.53% at all levels. Similarly, it is crucial to include subject-specific terms in the curriculum design from the very beginning. The strong representation of agricultural terms in all frequency levels shows that curbing vocabulary growth may not have been a one-off thing, but something that should be ongoing and integrated throughout the programme.

Furthermore, ODL institutions should develop tiered vocabulary support systems, including pre-course vocabulary assessments, glossaries aligned to BNC/COCA frequency lists, and multimedia vocabulary learning modules that address the word family threshold identified in this study. Given the stable lexical demands across levels, ODL institutions can implement consistent vocabulary support strategies throughout entire programs rather than increasing complexity progressively. Additionally, the findings suggest that ODL course materials should incorporate explicit vocabulary instruction targeting the gap between GSL (76.89% coverage) and the required comprehension threshold. This could include embedded vocabulary exercises, contextual definition strategies, and spaced repetition systems integrated into digital learning platforms.

Thus, this study contributes to the body of knowledge accumulated by researchers in the field of agricultural and marine sciences and provides a valuable insight into the lexical challenges faced by students in ODL programmes. First, the study provides a guide for curriculum developers and teachers

in designing ODL course materials. This, in turn, can lead to a more even distribution of disciplinary knowledge among students, helping to equip the emerging generation of agricultural and marine professionals with the knowledge and tools necessary to address the challenges of today's world.

However, as much as the study has made an important contribution, there are some limitations. The main limitation is that this study was conducted in the field of agricultural sciences, which may not enable extrapolation of the results to other disciplines. In addition, the data for the study were collected through a corpus-based analysis, which is quite reliable but does not take into account the inter-individual variability in students' lexical capacity and learning mechanics. Also, other aspects of language, such as syntactic and discourse patterns, were not analysed in the study for their effects on comprehension. These aspects are important for a proper understanding of lexical demands in the context of academic texts and should be considered in further studies. Similarly, the analysis only looked at lexical load and did not explore other vocabulary knowledge, such as multi-word terms and collocations that could further impede comprehension.

Future research should address these limitations by increasing the size of the corpus to include other ODL institutions and traditional institutions for cross-sectional comparison. In addition, it would be useful to include quantitative data from students and teachers to complement the perceived lexical difficulties and the implementation of current

vocabulary support measures. Furthermore, future research could examine the correlation between the extent of word knowledge, as measured by the number of words, and actual comprehension test scores, as well as the impact of explicitly taught and practised vocabulary on academic performance in ODL agricultural sciences courses. Such studies would not only improve researchers' understanding of lexical demands, but would also serve the best interest of generating research-based, evidence-based information about pedagogy.

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APPENDIX

Supplementary Table
100 most frequent academic word family headwords in ASC

ASC	Freq.	ASC	Freq.	ASC	Freq.	ASC	Freq.
process	3060	period	1089	benefit	767	remove	549
method	2599	evaluate	1060	role	758	communicate	544
area	2450	labour	1057	finance	751	consist	539
economy	2347	principle	1014	ensure	745	job	530
vary	2338	energy	1001	assign	739	invest	527
require	2160	income	989	research	728	create	525
environment	2096	affect	984	concept	726	range	523
resource	2037	structure	977	obtain	720	react	523
function	1916	occur	944	physical	713	credit	521
factor	1903	output	943	culture	703	margin	519
involve	1734	specific	939	utilise	700	participate	515
analyse	1670	major	937	significant	698	cycle	510
individual	1522	select	871	normal	674	implement	510
define	1492	summary	870	adequate	668	estimate	492
community	1468	facilitate	868	establish	668	indicate	491
identify	1417	distribute	834	maximise	654	task	490
consume	1314	technique	828	alternative	631	element	487
source	1305	proceed	827	strategy	621	objective	476
available	1234	approach	819	cooperate	566	assume	475
achieve	1233	institute	813	layer	564	locate	469
project	1174	theory	812	policy	563	similar	447
input	1160	impact	800	component	560	commodity	446
conclude	1113	data	788	administrate	556	primary	445
goal	1112	maintain	787	equip	556	region	442
assess	1093	design	772	chemical	552	promote	439

Shadows in the Sky: Thai Perspectives on Drone Warfare

Fabio Calzolari^{1*} and Wipa Phantanaboon²

¹*School of Social Innovation, Mae Fah Luang University, 57100 Chiang Rai, Thailand*

²*Faculty of Law, Chiang Rai Rajabhat University, 57100 Chiang Rai, Thailand*

ABSTRACT

The proliferation of Unmanned Aerial Vehicles (UAVs), also known as drones, has reconfigured the nature of warfare. Unlike human soldiers, who require rest and sustenance, these machines can operate ceaselessly. In the early stages, the United States (US) had a near-monopoly on them. However, in recent years, numerous nations have either acquired or plan to integrate such technologies. Despite the significance of all this for global stability, the international literature has often overlooked public perceptions, especially those from the Global South. This paper attempts to bridge this gap via online qualitative interviews with adult individuals who identified as Thai nationals or as being of Thai descent. It also assesses how Just War Theory (JWT) and international law impose limitations or fail to provide explicit constraints on drone deployment. The authors built their arguments on Posthuman Buddhism, a synthesis of Buddhist thought and Posthumanist theory, which unsettles anthropocentric premises. They construed data collection and analysis on Interpretative Phenomenology, chosen for its ability to elicit participants' experiential interpretations and meaning-making processes. Findings reveal that although most individuals acknowledged the tactical advantages UAVs offer to armies, they pointed out the substantial risks to society, such as the possibility of turning anyone into a target. Furthermore, there was unanimous concern that drones reduce the weight of lethal decisions, transforming them into video game-like acts. The manuscript concludes with a proposal for legal measures grounded in religious ethics, urging decision-makers to pursue nonviolent alternatives and to require public audits before resorting to armed responses.

Keywords: Buddhism, drones, international law, Just War Theory, Thailand

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E-mail addresses:

Fabio.Cal@mfu.ac.th (Fabio Calzolari)

Wipa.pha@crju.ac.th (Wipa Phantanaboon)

* Corresponding author

INTRODUCTION

The development of Unmanned Aerial Vehicles (UAVs), or drones, ranging from large models like the Predator RQ-1 and Reaper MQ-9 to smaller reconnaissance platforms, has conferred a strategic advantage upon the United States of America

(US) over other nations (Sacchi, 2019). UAVs are formidable instruments, but they also manifest limitations, primarily in-flight endurance and operational efficiency, arising from their relatively modest speeds and the considerable burden of their armaments. Nevertheless, they permit the engagement of targets without exposing human personnel to direct risk. Moreover, they have become pivotal to hybrid warfare, wherein conventional, unconventional, and cyber methodologies intersect with Artificial Intelligence (AI) (Lushenko & Raman, 2024). The proliferation of drones across conflict theatres has not been without controversy. Civilian casualties in regions such as the Middle East, Ukraine, and beyond have catalysed debates on their legitimacy and justifiability (Ling, 2024). Furthermore, legal scholars and human rights advocates have cautioned against a troubling trajectory: drones are normalising the resort to lethal force, presented as self-defence and shielded by operational opacity and the impunity enjoyed by sender governments (Dickey & Gleason, 2024). This paper draws on qualitative interviews with adult Thai individuals to document the repercussions of UAV proliferation, situating their perspectives within the framework of International Humanitarian Law (IHL) and International Human Rights Law (IHRL). Incorporating the philosophical insights of Posthuman Buddhism—which destabilises anthropocentric boundaries between humans and non-humans—and the religious principles of interdependence and non-violence, it reimagines the governance

of military technologies. It also addresses a lacuna in the international literature concerning non-Western perspectives on UAVs. No portion of this work is intended to interfere with or comment adversely upon the national security policies of any sovereign state. The analysis is offered in the spirit of academic contributions.

MATERIALS AND METHODS

Research Design

This study was conducted by two individuals: the first, an Italian national residing in Thailand, led the interviews and recruitment process; the second, a Thai citizen, contributed to the design and adaptation of interview protocols and supported the cultural and linguistic contextualisation throughout. Interpretative Phenomenological Analysis (IPA) was selected for its dual orientation: it enables a giving voice—through detailed attention to participants' expressed concerns—and a making sense, achieved through engagement with the relational and contextual dimensions of the material. IPA permits sufficient discrimination between the most personal aspects of experiences, their associated meanings, and the socio-cultural underpinnings of phenomena. It entails continuous exchange between researchers and researched, even throughout the interpretative phases of the data (Worthington, 2024). The unit of analysis is the discursive treatment of UAVs, with attention directed to remotely operated and semi-autonomous drones in military contexts. The authors agree with

Sollund (2008) that data from qualitative methodologies are generated rather than collected.

Theoretical Framework

This study orients itself around three research questions: How do drones challenge existing legal and ethical frameworks, and in what ways might Buddhist jurisprudence contribute to an alternative model of regulating warfare? Furthermore, what social frictions accompany the proliferation of UAVs, particularly concerning surveillance practices, privacy intrusions, and the attenuation of individual accountability in military conduct? Posthuman Buddhism supplies the heuristic schema to answer these conundrums. Like Roberts (2023), the authors used the term not as a fixed doctrinal stance but as a critical heuristic. The philosophy draws from both Posthumanism (primarily relational ontologies and critiques of human exceptionalism) and Buddhist concepts (such as *anatta* or non-self, *suññatā* or emptiness, and dependent origination) to interrogate how modernity (re)structures spaces, times and human life's characteristics (Gould & Walters, 2020; Tachibana, 2021; Wright, 2009). Gray (2000) unveils a paradox inherent in technology: it empowers and weakens people. Ubiquitous devices, such as mobile phones, tablets, and computers, have redefined daily life, rendering their absence almost unimaginable to many. However, such reliance introduces risks. For instance, they cause diminished critical thinking, social disconnection, and dependency. Cudworth and Hobden

(2013) uncover how wearable exoskeletons designed for American soldiers can restore and amplify bodily abilities while blurring the line between human and non-human. They also render users conditioned by third parties—state or private corporations—for spare parts and batteries. Bennett (2001) and Latour (2012) unsettle prevailing distinctions within the human–non-human spectrum. Precisely, they locate actorness and its attached qualities within relational configurations or matrixes rather than in discrete entities.

Bennett's idea of the 'assemblage' posits that agency arises not from an object's materiality alone but through its situated interactions with other entities. Latour employs the notion of 'chains of associations' to contend that value—whether of a person, an entity, or the relational interface between them—is configured through ever-changing linkages across layered systems rather than through individuated elements. Braidotti (2017) also rejects linear causality and individualist logic. She claims that meanings are not fixed or singularly imposed. Rather, they are formed through the entangled actions and interrelations of various agents (people, machines, discourses, systems) within unstable environments (contingent ecologies). Boyle (2016) uses the expression 'metastable orientation' to refer to a condition temporarily stable yet susceptible to transformation—a concept borrowed from physics but used in posthuman and systems theory to describe a flexible, adaptive shared universe. Buddhism's doctrine of *anatta* (non-self) complements posthumanist

thinking by disavowing the notion of a fixed, intrinsic identity in favour of a fluid model of the self where the inside is the outside and the outside is the inside (Zheng, 2024). Within the domain of drone warfare, these formulations converge in treating senders, weapons, and targets as one within vast moral, legal, and epistemological collectives moving around borders (Fairchild, 2019). However, International Humanitarian Law (IHL) and International Human Rights Law (IHRL) remain based on anthropocentric presumptions and prioritise static state sovereignty over fluid and hybridised models. The Martens Clause presupposes a rational, bounded legal subject—misaligned with drone warfare. Likewise, the International Covenant on Civil and Political Rights (ICCPR) assumes discrete privacy violations by identifiable actors, whereas drones operate through ambient surveillance and dispersed accountability.

Enrolment

The first author sought to recruit adult individuals residing in Thailand and abroad who identified as Thai citizens or ethnic Thai (defined as having at least one parent born in Thailand) and who possess a high level of fluency in the English language. They were further expected to demonstrate familiarity with the internet and the topic under scrutiny, especially its socio-legal characteristics. Recruitment began through purposive sampling on platforms like Facebook, Twitter (X), Reddit, and Line. Posts were bilingual (Thai and English). They explained the study's

aims, qualitative orientation, and the first author's positionality as an Italian national and the second as a Thai citizen. An online participant information sheet (PIS) and informed consent form (ICF) were linked directly in each post and recruitment email. They remained accessible throughout the data collection period, allowing prospective individuals to assess and review their rights, including confidentiality, anonymity, and the freedom to withdraw at any stage. Though candidates were encouraged to decide before data analysis began, no restrictions were placed on withdrawal. He used snowball sampling to enlarge the sample universe. The first author invited early participants to refer others interested in sharing their perspectives. No rigid criteria were imposed. De facto, participants were simply asked to refer people with unconventional viewpoints. Recruitment materials were worded to avoid partisan terminology. Furthermore, they ensured space for mainstream and dissenting voices across ideological lines. The final sample comprised thirty-three participants. While the initial cohort was recruited during the primary research phase, several additional interviews—incorporated into the same analytic frame—were conducted between 2024 and 2025 during the article's review period. Twelve participants were based in Thailand; the remainder resided abroad. All stakeholders held at least an undergraduate degree. Most identified as non-practising Buddhists. This distribution was unsurprising as it was consistent with national patterns and religious trends across Thai migrant

communities. Although the study did not aim at representativeness, the sample size followed the methodological expectations of IPA, which stresses idiographic engagement over numerical expansion. The first and second authors acknowledged that the sample skewed toward middle-class professionals. They defended this as a methodological necessity, driven by the interview protocol's reliance on abstract political, religious, and technological reasoning, as well as reflexive debates over national and international law.

Concerning snowball sampling, the first author deemed it compatible with IPA. This is because it worked as a mechanism for accessing individuals within discursive orientations that would have been less accessible through purposive strategies alone. Nonetheless, he acknowledges that voices outside higher education remain underrepresented and could be better placed in future IPA works. The authors previously published a related survey of Italian stories about drone warfare, which can be read as a companion text (Calzolari & Phantanaboon, 2025). The current endeavour was conducted using a discrete theoretical remit and data set. Nonetheless, it confirmed the effectiveness of the enrolment procedures in reaching individuals across various national contexts. They do not claim that participants explicitly identify with Posthumanist Buddhist positions; philosophical tenets were employed to assess how people approached UAVs. Moreover, individuals were selected not because of UAV exposure but because

of their values as grassroots narrators. Their accounts clarified how non-Western, non-combatant observers conceptualise techno-moral dilemmas from foreign policy and transnational warfare. Including US drone strikes in the introduction was a referential anchor widely referred to by the interviewees rather than an assertion of their global salience. This recruitment protocol follows the same methodological guidelines they adopted in previous IPA research.

Data Collection and Analysis

The first author conducted one-on-one, semi-structured online qualitative interviews between 2023 and 2025. All the meetings were conducted in English and audio-recorded with prior written and verbal consent. They were also transcribed *verbatim*. They ranged from 35 to 90 minutes in length. Prior to each interview, participants were sent a digital information sheet outlining the study's focus. They were reminded of their right to anonymity, withdrawal, and transcript review. He opened each session by reiterating the project's aims and inviting any clarifying questions. His role was to create a conversational space that permitted deliberation, hesitation, and ambiguity. Although he carried out the interviews in English, he made space for explanatory digressions, primarily when stakeholders utilised Thai idioms or Buddhist vocabulary. The interview guide centred on four thematic clusters directly linked to the topic of drone warfare: (1) perceptions of legitimacy in targeted killings and remote military technologies;

(2) emotional and moral responses to UAV use; (3) the relevance of (Posthuman) Buddhist principles to judgments about military violence; and (4) possible and alternative futures comprising autonomous weapons and the human-machine relationship. Before and during the interviews, it was underlined that the project was a normative intervention, not a political, religious or legal denunciation. The goal was not to accuse but to assess and, in some circumstances, propose a new way of thinking.

The first author examined the transcripts and worked with the second to identify patterns in the texts' latent and manifest content, focusing on respondents' assumptions and insights formed during the interviews. The process featured reading and coding, with related ideas grouped into categories. The authors identified three main themes. The first, which they nominated as 'distributed agency', was linked to interviewees' reiteration of a relational model of guilt encompassing drone operators, their superiors, and the wider collective of individuals and procedural mechanisms that enabled the deployment of weapons beyond the parameters of domestic and international legal norms. The second, 'technological alienation', was associated with the epistemological and affective detachment of remote killing. Participants described drone warfare as disorienting. For them, physical distance from the battlefield can make the liquidation of targets a videogame-like experience. The third, 'alternative legal imaginaries', conveyed the informants' aspirations for a juridical

order not grounded in proportionality, retribution, or geopolitical calculus. Instead, they wanted future laws and enforcement to be premised upon restraint, compassion, and harm minimisation ideas. Many of the arguments and people's statements are interwoven. The names used in this section are aliases. Ages are indicated in brackets. Because opinions often traversed religious, legal and political registers, their insights could not be neatly compartmentalised. Thematic boundaries remained porous in the discussion section, and many statements overlapped multiple domains. After the analysis, stakeholders reviewed a summary of the findings and thematic groupings. The authors edited some citations for stylistic consistency in communication with the participants.

RESULTS

The interviewees alleged that UAVs preside over most contemporary battlefields. For them and the authors themselves, discussing drones was akin to commenting on monsters (from the Latin *monstrum* meaning an omen or prodigy) like ยักษ์ (*yaksha* or ogre) and ราคษส (*rakshasa* or shape-shifting man-eater) from local and regional epics. This analogy accentuated the disquieting reality of modern warfare, in which creatures born of myth-technological fusion demonstrate that we humans, made of blood and bones, still bound by breath and sorrow, are dispensable (Ago, 2016). Although the interviewees' accounts were inherently partial and might not reflect the entirety of the Thai and diaspora populations, they offered valuable

insights. Several subjects advanced the view that the proliferation of drones dissolves the (Smithian) conceptual and juridical boundary between *amici* (friends) and *inimici* (enemies) (Chamayou, 2015), thus depoliticising or, better, reinventing the ‘art of fighting’. Participants posed a thought-provoking question: could Buddhism, with its attention to interconnectedness, compassion, and the dissolution of the ego, help us to transcend cyclical arms races? Perhaps, they argued, but only if people rethink complicity, volition, and the consequences of their actions.

DISCUSSION

Killing by Remote Control

Drones gained prominence during the Vietnam War in the 1960s. Since then, they have encroached on many more war theatres, from Bosnia to Kosovo, Afghanistan, and Iraq. While research and development programs were confined to the national defence industry before the 1960s, many private firms now pursue them (Shaw, 2016). Mayer (2015) acknowledges the advantages of UAVs’ ‘more-than-human’ attributes. Nonetheless, Gregory (2015) dispels the idea that they are invincible. They can undertake sorties almost autonomously, but they are not flawless and can make mistakes during tasks such as tracking hostile targets or assisting with search and rescue operations. In the two decades since the attacks on the World Trade Centre and the Pentagon, the so-called Global War on Terror (GWOT)—a transnational campaign targeting non-state actors deemed to pose

threats of terrorism—has impacted drone operations. It has also prompted renewed engagement with Just War Theory (JWT), a doctrine of military ethics (Hajjar, 2019). Before 9/11, security functioned as one among several benchmarks of public administration. Following the event, it became the primary criterion for evaluating state legitimacy. Agamben and Emcke (2001) highlight that when a government prioritises security above all else, it becomes a fragile entity that is susceptible to becoming terroristic itself. From the interviewees’ speeches, it was also apparent that there was a consensus: President George W. Bush launched a military campaign to dismantle the militant group al-Qaeda, apparently unencumbered by the constraints of the American Constitution. Furthermore, the principles underlying his GWOT coalesced into the so-called Rule-Based International Order (RBIO), a set of regulations parallel to international law (Dugard, 2023). The White House defended the operationalisation of aerial robotics in foreign countries as an act of self-defence under RBIO. Unsurprisingly, this rationale faced rebuttals inside and outside the US for violating International Humanitarian Law (IHL) and International Human Rights Law (IHRL), as Krieger et al. (2019) remind us.

For the participants, the appearance of UAVs signals an experiment in thanatology, where entire communities are liable to be erased by machines based on algorithms that associate patterns of behaviour and appearance with unlawful activities. In 2013, in Yemen, drones misinterpreted

a wedding party as an al-Qaeda convoy and eliminated the attendees (Rinehart, 2016). Further examples comprise the Russian destruction of Ukrainian public infrastructures (Chávez & Swed, 2023). The informants elucidated that the peril intrinsic to military technology lies in the possibility that the relentless mechanised hunt could ignite a worldwide war, rendering any form of peaceful coexistence unattainable. In other words, with the eclipse of classical warfare between sovereign states, the pursuit of enemies—real or imagined—at home and abroad appears to culminate in the globalisation of fear, an endeavour that, rather than establishing law and justice, intensifies disorder. There is another issue, as Agamben (2008) explicates. Security measures, which frequently rely on resorting to a ‘state of exception’, contribute to the increasing depoliticisation of society. Over time, they become incompatible with the principles of democracy. To fully understand this, one must consider the dual nature of the distribution of UAVs’ offensive capabilities—the accompanying spread of vulnerability. The same factors that grant broad access to offensive power also increase the likelihood of becoming a victim of that power (Zulaika, 2014). However, this vulnerability does not simply stem from the increased offensive potential of drones to governments and those non-state actors who can afford them; it also materialises from the heightened exposure these machines create (Wittes & Blum, 2015).

Tom (45) expressed unease with Thailand’s reported interest in UAVs.

He said, “*People can become bloody desensitised to violence because drone strikes are often conducted remotely [apropos of US sorties in the Middle East].*” In a WhatsApp conversation, Paul (38) added another layer: “*The issue with drones isn’t just the immediate risk of civilian casualties, although that is a grave concern. It’s also about the long-term impact. What happens when they fall into the hands of terrorists? That’s game over!*” Niraporn (34) remarked that the advent of UAVs nourished what she described as ‘overcautiousness’ among state personnel. Her critique resonates with Zulaika’s (2020) account of ‘cavalier detachment.’ Alternatively, a fantasy of clinical war where UAV actions are rhetorically sanitised (people are terminated or liquidated, not killed). Hasian (2016) and Enemark (2013) write that historical warfare was epitomised by the duel, in which two contenders put their lives in jeopardy while acknowledging each other as *justi hostes* (legitimate enemies), that is, as subjects bearing rights. UAVs, conversely, simply execute, often from above and in swarms (SFERRAZZA PAPA, 2016). Niraporn’s concerns were intriguing for the authors because they echoed Sci-Fi tropes (McFarlane, 2016). The metaphorical phantasma looming over her was Skynet—the sentient supercomputer network from the American film *Terminator*. It embodied the consummate, or more precisely, the consummately terrifying de-anthropomorphised assassin. Like Hambling (2023), Oliver (40) commented: “*Most countries are investing millions*

in developing weapons, funds that could instead be directed toward assisting refugees, vulnerable populations, and others in need [...] I am [expletive] upset!" He also insisted that misallocating resources creates a double burden, both in the loss of trust and the potential for unrest among those who feel disenfranchised.

All Good Drones Go to Heaven, and the Bad Ones Stay on Earth

Jonathan (35), a Buddhist lay practitioner who occasionally stayed in a monastery and regularly read 'canonical' texts, brought a doctrinally informed lens to the discussion. He explained, "*For Buddhism, every action has consequences.*" He also cautioned that drones may generate terrible karmic effects." He also elaborated, "*A computer cannot substitute the spiritual guidance and wisdom our consciousness offers.*" Like Rae (2015) and Carr (2010), most participants speculated that UAVs might eventually breach the boundary between military application and civilian governance. Under these settings, Kim (27) noted that they exhibit a capacity for continuous self-improvement, achieving what could be seen as robotic self-perfection. Paradoxically, she observed, this trajectory aligns with Buddhist ideals of mastery (Hughes, 2019). Yet, Shaw (2016) and Clarke (1978) champion the idea that drones do not merely improve human capabilities; they recalibrate our imaginaries of the divine. Therefore, Thananya (46) submitted that religions cannot remain confined to a human-centric universe but must begin discussing hybridisation and

intermixture between humans and non-humans, flesh and cables. Five other people speculated that science, when exploited by soldiers, brings in a new kind of fatalism governed not by karma but geopolitical imperatives. They implied that death as a 'fate fulfilled' acquires a new significance in this context. Just as childhood folklore locates destiny at a crossroads—where choices unfold in tandem with forces beyond individual control—UAVs bring about a new threshold, where human intention, machine autonomy, and the boundary between life and non-life converge with often unforeseeable effects. Some people are killed, while others are subjected to physical or psychological trauma. Some are assimilated into the system via the videos and audio harvested during combat. Kanta (28) said that it is well-known that Ukrainian and Russian troops used recordings with added background music and slow-motion effects to produce social media posts, which, for him, was terrifying. To make matters worse, Gregory (2012; 2014) describes an incoming spatial regime in which coercive power is no longer confined to specific territories. Instead, it evolves into a spiritual presence, manifesting here through surveillance, there through cross-border strikes, and nowhere through legal accountability. For the authors, such a triangulation resembles the Buddhist portrayal of *suññatā* (Emptiness), wherein phenomena lack inherent location or identity. To move a step forward, they zeroed in on their conviction that the drone's gaze is not bound to the site it spies. It also occupies

the liminal interstice between the observer and the observed (in-betweenness is one of its most relevant features for asymmetrical warfare), as the systems guiding its sensors can infiltrate its target's mobile phones, smart watches, or even the GPS inside their car. In this sense, robotic activities realise a form of *karma* (action) that circulates without locus; it is a trace unmoored from any agent, recipient, or place.

Testing the Intersection of Just War Theory and International Law

Evans (2020) traces how JWT relies on legislation to substantiate its philosophical underpinnings, whereas international law incorporates ethical principles to inform the rules governing military conduct. Much of the norms applicable to drone attacks derive from JWT. Elshtain (1992) divides this theory into three critical components: *jus ad bellum* (right to go to war), *jus in bello* (right conduct in war) and *jus post bellum* (right after war). These principles collectively guide warfare, balancing the rights and responsibilities of combatants and states. *Jus ad bellum* governs the initiation of hostilities, mandating substantial justification for war (Cannizzaro, 2006). It asserts that while states exercise sovereignty within their territories, stringent criteria—such as just cause, right intention, probability of success, proportionality, and last resort—must be met before starting an armed conflict. In parallel, just cause demands morally and legally acceptable reasons, such as self-defence or protecting innocents in imminent peril (Ratner, 2002). Although

enshrined in Article 51 of the UN Charter, interpretations of this provision remain contentious. For instance, the US justified its 2003 invasion of Iraq by citing Weapons of Mass Destruction (WMD)—a claim later discredited (Scott & Ambler, 2007). Right intention requires the primary motive for standoffs between countries to abide by the just cause, avoiding ulterior agendas like economic gain or territorial conquest. Similarly, the criterion of probability of success discourages confrontations that are unlikely to achieve their objectives, thus preventing unnecessary loss of life and resources. Proportionality demands that the anticipated benefits of a campaign outweigh the potential harm it causes. The last resort insists on exhausting all diplomatic alternatives before resorting to manoeuvres. A notorious case is the Cuban Missile Crisis, where diplomacy averted a nuclear clash between the US and the Union of the Soviet Socialist Republics (USSR) (Butler, 2003), which would have had catastrophic consequences. *Jus ad bellum* also circumscribes armed conflicts geographically. Neutral states must remain uninvolved and ensure their territories are not used for hostilities (Haines, 2009). The 1907 Hague Conventions codify these tenets, with the UN Security Council reaffirming them after the 1986 US bombing of Libya. While *jus ad bellum* tolerates pre-emptive strikes in cases of immediate aggression, it strictly prohibits preventive actions against speculative menaces (Stahn, 2006). The Caroline incident (1837) established that threats must be immediate

and overwhelming, leaving no room for alternative measures or deliberation. *Jus in bello*, or IHL, organises conduct during clashes to protect combatants and non-combatants. Combatants must limit civilian harm, guaranteeing protections to non-combatants unless they directly participate in hostilities. Pivotal to *jus in bello* are the Geneva Conventions of 1949 and their Additional Protocols of 1977 (Ohlin, 2013).

Between Just War and Legal Silence

The Martens Clause, formulated in the 1899 Hague Convention, safeguards individuals when existing treaties do not explicitly cover the situation on the ground (Ticehurst, 1997), as can be the case with UAVs. Ticehurst identifies three readings of the clause: one that maintains the continued applicability of customary law alongside treaty law; a second which denies that legal silence implies permission; and a third which holds that humanitarian conduct must conform to ethical standards beyond formal agreements, including obligations derived from natural law. Shahabuddeen, in his dissenting opinion at the International Court of Justice (1996), endorsed the latter, proclaiming that the Martens Clause supersedes the Lotus Principle (magnifying state geographical and juropolitical sovereignty) and binds the conduct of hostilities to the ‘requirements of public conscience.’ Whereas his argument was formulated apropos of WMD, a similar logic may be adopted for drone warfare.

The concept of *jus post bellum* represents a substantial evolution in JWT. First articulated by scholars such

as Walzer (2015), it goes beyond the justification for entering war to address the sustainability of peace. Article 2(4) of the United Nations Charter prohibits the use of force, except in cases of self-defence or with the authorisation of the Security Council (Doswald-Beck & Vité, 1993). However, *jus post bellum* has been invoked to move attention away from the legality of starting an armed conflict toward its post-war outcomes, such as establishing democratic or stable governance. This outlook unsettles the principle that actions must be lawful at the time they occur, regardless of later developments. Referring to *jus post bellum*, Orend’s (2013) widely cited typology sets out requirements for reconstruction, criminal accountability, and economic restitution. Evans (2020), however, critiques the power asymmetries embedded in post-war settlements, which often distort the implementation of these normative principles. He contends with transitional justice, occupation law, and institutional legitimacy (or the lack thereof), demanding that post-conflict arrangements uphold the rights and dignity of affected populations rather than serving the interests of the victors.

He also warns us against exploitative reconstruction framed as humanitarian aid—a critique shared by Orford (2011) and Klein (2020). Cortright et al. (2017) and Chamayou (2015) theorise that drones impose military rationalities upon periods nominally defined as peace, subverting *jus post bellum*. Turning our attention to the interviewees’ perspectives, we can

give weight to John (36), who referenced Asimov's (2004) analysis of justice in his robot book series and the Three Laws of Robotics. *"He's saying that normal rules break down when you're dealing with machines instead of people."* He added, *"Our governments must proactively redefine what is right and wrong to safeguard [raising the voice] HUMAN INTERESTS."* Raksamon (37) and Somchai (50) mentioned that exploiting remote-controlled devices has become more attractive because they are low-risk (in terms of human casualties), cost-effective, and less likely to incite domestic opposition. Hence, their very existence may create legal grey zones or ambiguity within the law where enforcement is unclear, inconsistent, or incomplete (Carr, 2010). Outside war theatres, missions like the liquidation of a terrorist group member in failed states (where there is no sovereignty) or across borders (where the exercise of sovereignty is limited), once carried out only occasionally, can calcify into tactical procedures, which, for Siriwan (35), begs the question: *"Who owns the airspace above us? When and where does the war end?"*

Toward a Post-Buddhist Jurisprudence of Drone Warfare

Recent scholarly work highlights tensions between Southeast Asia's normative conventions (Wyatt & Galliot, 2018). The Association of Southeast Asian Nations (ASEAN) is increasing its defence budgets and arms acquisitions, which could perpetuate the culture of militarism rather than the region's stated culture of peace

(Kliem, 2024). Such dynamics coexist with ASEAN's consensus-driven governance: even amid crises such as the Myanmar coup, South China Sea disputes, and the US-China rivalry, the informal ASEAN way of non-intervention and consultation remains the default mode of security governance (Cook, 2021). Contemporary dialogue between Buddhist ethicists and legal experts suggests that religious and philosophical teachings can buttress how countries operate within and around the battlefield (Bartles-Smith et al., 2020; Bartles-Smith, 2021). Thailand has several statutes governing UAV operations. The primary one is the Thailand Air Navigation Act BE 2497 (1954) (พระราชบัญญัติการเดินอากาศ พ.ศ.2497), which, along with subsequent norms, creates the legislative bedrock. One of these directives is the 2015 Notification from the Ministry of Communication, based on Section 24 of the 1954 Act. It outlines licensing requirements (ประกาศกระทรวงคมนาคม เรื่อง หลักเกณฑ์การอนุญาตและเงื่อนไขในการบังคับหรือปล่อยอากาศยานซึ่งไม่มีนักบินประเภทอากาศยานที่ควบคุมการบินจากภายนอก พ.ศ.2558). The Act also stipulates penalties under Section 78(1). Operating a pilotless aircraft without the Minister's written consent may result in imprisonment for up to one year, a fine of up to forty thousand Baht, or both. The military and the police are exempt from registering their UAVs under Section 5 of the Act. However, private drone operators, unless affiliated with the military, must be licensed by two regulatory bodies: the Civil Aviation Authority of Thailand (CAAT) and the National Broadcasting Telecommunications

Commission (NBTC). NBTC is responsible for managing frequency allocation, while CAAT oversees the licensing and supervision of drone pilots (if any). State-operated UAVs are subject to a separate authorisation regime under existing Thai legislation.

This article outlines a supplementary blueprint inspired by Posthuman Buddhist precepts. The model comprises three legal instruments: the Law of Compassionate Defence (LCD), the Law of Non-Violent Engagement (LNVE), and the Law of Interconnected Security (LIS). These are intended to operate within Thailand's legal system through amendments to the 1954 Act or via a new statute governing scrutiny of military technologies. The Law of Compassionate Defence mandates *karuṇā* (Compassion) and *sīla* (Moral Discipline) as normative thresholds for authorising drone use. It reinterprets proportionality by requiring demonstrable minimisation of *dukkha* (Misery or Suffering) for civilians, as well as long-term social stability. Logically, the implementation of LCD requires an amendment to Section 24 of the 1954 Act, demanding a distinct authorisation process for armed drones. A Compassionate Oversight Committee (COC), comprising military, legal, and Buddhist scholars, would conduct pre-authorisation reviews. These may be binding or advisory, depending on the circumstances. The COC functions analogously to a weapon review body under Article 36 of Additional Protocol I. Commanders seeking UAV approval could complete training in Buddhist ethics, forming part of an administrative due diligence procedure.

The Law of Non-Violent Engagement codifies a duty to pursue non-lethal options before resorting to drone deployment. The proposal draws on *mettā* (Kindness) and *sammā-vācā* (Right Speech) to mandate that surveillance and humanitarian functions be distinguished from kinetic operations. For the authors, only the latter would require scrutiny and justification. CAAT and Ministry of Defence registries would classify UAV operations under new technical guidelines. LNVE requires that all kinetic drone authorisations be preceded by documentation showing that peaceful options—diplomatic, economic, or legal—have failed. LNVE also mandates that national policy align with Article 6 of the ICCPR and Sections 70 and 78 of the 2017 Constitution. Implementation could occur through ministerial regulation or executive policy. While not displacing self-defence rights, LNVE imposes a higher evidentiary burden for drone-based intervention. The Law of Interconnected Security adopts *paṭicca samuppāda* (Dependent Origination) to redefine national security as a relational phenomenon. It codifies a legal requirement for an anticipatory review of UAV operations regarding ecological and regional impact. LIS is influenced by the Environmental Quality Act B.E. 2535 (1992). It proposes a comprehensive audit involving the Ministry of Defence, CAAT, and Natural Resources and Environment. Authorisations for UAV use would include environmental and socio-political assessments as preconditions. It complies with the UN Charter and ASEAN Charter while reinforcing Thailand's constitutional mandate to ensure sustainable

development. It may be a national white paper or an administrative guideline before later codification. Each instrument targets a specific domain: LCD relates to use-of-force thresholds; LNVE tackles procedural restraint; and LIS clarifies system-level checks.

To merge these into existing legislation, the authors suggest amending provisions of the 1954 Act. They realise there will be feasibility constraints, such as institutional resistance and constitutional boundaries on discretion. Thus, they recommend a staged approach: issuing ethical training standards, updating licensing classifications, and requiring review protocols. These can be operationalised without displacing current treaty-based duties and would increase doctrinal clarity and accountability. Since discourse on UAV warfare in Thailand remains limited, the authors realise the necessity of norm internalisation via participatory mechanisms. These comprise civic education, policy consultations, and stakeholder dialogue convened by academic, religious, and regulatory institutions. The authors argue for creating feedback procedures via top-down and grassroots deliberation. Over time, Buddhist precepts could inform legal reasoning, paralleling IHL and IHRL.

Brunstetter and Férey (2021) and Martins (2017) are correct to underscore that most targeted killings in recent years have occurred in states with which the sending country is not formally at war. This circumstance carries legal consequences. Chief among them is that the conduct of

drone operations bypasses the constitutional procedures designed to preserve the exceptional nature of war, making the exception the rule. Whereas international law does not outright prohibit targeted killings, it permits them only under specific conditions. In practice, these criteria are frequently disregarded. Thailand is not formally at war, yet while its Air Navigation Act BE 2497 (1954) and subsequent notifications regulate ownership and operation, they do not address intent, targeting, or civilian impact. The Thai case is not an exception to the global pattern—it is a variation within it. The proposed instruments—LCD, LNVE, and LIS—are not symbolic supplements but necessary legal correctives. They contribute doctrinal content where the law is silent, embed Buddhist ethics where constitutional discretion is unbounded, and propose institutional procedures for domains where oversight mechanisms remain underdeveloped. These guidelines do not negate the dedication or discipline of those serving in the armed forces. Rather, they affirm that the courage displayed by military personnel should be matched by an equally courageous legal setup in times of automation. War has changed. The law must follow suit.

Theoretical Conclusion

The authors demonstrate that UAV operations erode the applicability of individualised culpability under established legal doctrine. Interviewees described decision-making as multi-nodal, with intent, execution, and consequence distributed across human and

automated agents. This operational structure complicates attribution under IHL, which presupposes unified agency and spatial-temporal contiguity. Moreover, they noted that physical detachment reduces moral restraint. In this context, the authors referred to Bennett (2001), who conceptualises agency as arising from assemblages rather than sovereign will. Latour (2012) similarly tracks causality through associations, not legal subjects. By the same token, they highlight the value of Gregory’s work (2012; 2014). The latter demonstrates how spatial/ temporal disjunction between UAV pilots and their ‘victims’ conceals the exercise of lethal force. Lastly, the authors reiterated the value of Thai Buddhist concepts as they reject fixed identity and linear causation within and between humans and non-humans, offering an ontological model better suited to the juridical opacity of drone warfare. Table 1 below shows the conceptual flows for a post-buddhist legislation, Table 2 shows the ASEAN and UAV-based offensive, and Table 3 shows Western vs. ASEAN Approaches to Drone Warfare.

Table 1
Conceptual flows for a post-Buddhist legislation

Category	Concept	Details	Flow
Theoretical Framework	Posthumanism	Relational Ontology, Critique of Human Exceptionalism (Bennett, Latour)	Assemblage Theory → Distributed Agency
	Buddhism	Anatta (Non-Self), Suññatā (Emptiness), Dependent Origination	Mixed Human-Nonhuman Ethical Models
	Technological Critique	Gray’s Paradox (Empowerment/Weakening), Boyle’s Metastability, Cudworth & Hobden’s Human-Nonhuman Blurring	Fragile Hybrid Security Models
Empirical Findings	Distributed Agency	Guilt and responsibility dispersed across actors (pilots, operators, states)	Breakdown of Individual Accountability
	Technological Alienation	Emotional detachment in remote executions, dehumanisation of violence	Videogame-like Warfare Experience
	Alternative Legal Imaginaries	Participants desire compassion, restraint, long-term ethical responsibility	Aspirations for New Legal-Ethical Standards
Historical Analysis	Killing by Remote Control	Vietnam → GWOT → RBIO; Security becomes dominant governance metric	Depoliticisation of Violence
Legal Analysis	Just War Theory (JWT)	Jus ad Bellum, Jus in Bello, Jus post Bellum strained under drone warfare conditions	Legal Gaps and Ambiguities
	International Humanitarian Law (IHL)	Anthropocentric limitations: Martens Clause demands conscience-based regulation	Inadequacy in Drone Context
Legal Reform Proposals	Law of Compassionate Defence (LCD)	Compassion and Moral Discipline thresholds for UAV use; COC oversight inspired by Article 36 API	Reinforced Restraint in Use-of-Force Thresholds

Table 1 (continue)

Category	Concept	Details	Flow
	Law of Non-Violent Engagement (LNVE)	Exhaustion of peaceful options, proof before kinetic deployment; Ethical Scrutiny	Strengthened Duty to Pursue Peaceful Solutions
	Law of Interconnected Security (LIS)	Anticipatory environmental and social audits of UAV impacts; Relational Security Model	Context-sensitive Security Governance

Table 2
ASEAN and UAV-based offensive measures (inspired by Kliem, 2024; Suzuki, 2021)

ASEAN Principle	Definition in ASEAN Practice	Implications for Drone Warfare
Sovereignty and Territorial Integrity	Emphasis on non-intervention and respect for state borders.	UAV intrusions are likely framed as sovereignty violations; drone policy focuses on non-encroachment.
Neutrality and Non-interference	Avoidance of involvement in external armed conflicts or condemnation of other states.	Limited regional appetite for extraterritorial drone sanctions or collective UAV doctrines.
ASEAN Centrality	Attention to ASEAN as a diplomatic convenor in the Indo-Pacific.	Lack of regional cohesion on drone ethics weakens ASEAN's actorness in military AI governance.
Economic and Energy Security	Policy shaped around essential imports and supply chain continuity.	Drone procurement potentially prioritised for economic or logistic utility over legal-ethical scrutiny.
Strategic Autonomy	Commitment to independent, non-aligned policy choices.	States adopt UAV policies tailored to their domestic security interests, often decoupling them from multilateral norms and standards.
Hedging between Powers	Simultaneous cooperation with competing global actors.	Drone technology acquired from multiple sources complicates interoperability, legal harmonisation, and ethical standards.
Diplomatic Resolution over Sanctions	Preference for persuasion, consultation, and consensus mechanisms.	UAV misuse is unlikely to trigger regional punishment regimes; governance is pursued through soft law or informal oversight.
Disunity in Collective Action	ASEAN members often diverge in national responses despite shared rhetoric.	No unified ASEAN drone doctrine; UAV norms remain state-driven.
Commitment to International Law	Public support for UN Charter principles is inconsistently enforced.	In drone policy, references to IHL and IHRL are often symbolic (in some ASEAN nations like Myanmar/Burma or during coup scenarios) (see Doffegnies & Wells, 2022); enforcement mechanisms might be underdeveloped.
Resistance to Western-style Diplomacy	Preference for regional mechanisms over bloc-led or coercive frameworks.	ASEAN drone governance is likely to favour homegrown ethical models (e.g., Buddhist or local legal norms) over NATO-aligned military jurisprudence, especially in high-risk areas like the Indo-Pacific (Yoshimatsu, 2023).

Table 3
Western vs. ASEAN approaches to drone warfare

<i>Dimension</i>	<i>Western (NATO/EU) Practice</i>	<i>ASEAN Practice</i>	<i>Implications for Drone Governance</i>
The typology relies on ideal-type distinctions to delineate doctrinal orientations in UAV governance across regional blocs. The contrasts carry no prescriptive connotation and do not assert the primacy of one model over another.			
Legal Infrastructure	Enacts codified regimes: NATO operational codes, EU mandates, ICC statutes	Entrusts legal discretion to state institutions; no supranational mechanisms	Western models constitutionalise UAV policy; ASEAN counterparts adjudicate it within sovereign parameters
Ethical Foundations	Derives principles from secular moral theory, Just War ethics, and humanitarian jurisprudence	Construct normative reasoning on pluralist traditions: Buddhist, Islamic, or nationalist	Western ethics advocate doctrinal coherence; ASEAN ethics accommodate culturally contingent frameworks
Institutional Capacity	Mobilises command architecture via NATO hubs and EU defence organs	Participates in episodic coordination absent a standing military authority	Western institutions streamline joint deployment; ASEAN structures function through intergovernmental consultation
Decision-making Culture	Delegates authority through hierarchical security bureaucracies	Fosters consensual deliberation, privileging national policy autonomy	NATO protocols enable expedient implementation; ASEAN deliberations emphasise distributed decision-making
Transparency and Oversight	Facilitates external review through parliamentary scrutiny and legal adjudication	Regulates information under national security frameworks with selective disclosure	Western systems embed procedural accountability; ASEAN regimes administer oversight through internalised controls (that might vary across nations)
Public Discourse	Channels ethical engagement via civil organisations, academics, and public media	Frames UAV narratives primarily through ministerial or elite-led forums/think-tanks	Western publics instigate ethical debate; ASEAN publics can sometimes encounter institutional boundaries to normative intervention
Technological Origin	Create UAV platforms domestically, drawing on embedded legal systems	Acquires systems from international producers (e.g., China and Russia), with limited modification or customisation	Western designs incorporate ethical jurisprudence; ASEAN imports adapt to prevailing geopolitical and technological constraints
Operational Doctrine	Codifies engagement procedures via multilateral standardisation protocols	Assembles national directives in the absence of regional coordination	Western militaries administer shared tactical procedures; ASEAN operational models reflect jurisdictional divergence
Norm Diffusion	Disseminates regulatory norms via treaty mechanisms, doctrinal exchange, and jurisprudential alignment	Circulates ethical positions via informal diplomacy and multilateral dialogue	Western blocs externalise legal standards; ASEAN forums cultivate soft normative presence through negotiated consensus

CONCLUSION

For the participants, UAVs weaken legal and moral sensitivity and accountability. On the one hand, they accepted drone deployment for intelligence gathering and mine clearance. On the other hand, they rejected their use for distant execution. Ling (2024) and Walzer (2016) opine that proportionality is often applied permissively, enabling civilian harm through speculative military calculations. The authors submit that it lacks a mechanism to weigh harms unfolding across time and borders. For them, a Posthuman Buddhist-informed legal reform would bring about a temporal audit, incorporating karmic consequences such as displacement, ecological damage, and psychosocial harm. This would shift scrutiny from numeric thresholds to how violence alters social relations. It could also recast proportionality as a non-quantitative test, where necessity cannot outweigh social and individual harm. Thailand, given its long-standing commitment to peaceful coexistence, holds unique normative resources to help redefine military governance in the age of automation. By merging Posthuman Buddhism with domestic and international legal standards, the country could position itself as an exemplar of doctrinal restraint and ‘humane’ security.

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Does Climate Change Change Us?— Emotional Intelligence and Character Responses to Climate Crisis in *Back to the Garden* by Clara Hume

Liuna Wei, Ida Baizura Bahar*, and Zainor Izat Zainal

Department of English, Faculty of Modern Languages and Communication, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia

ABSTRACT

Extreme weather and natural disasters occur frequently, posing great challenges to human survival and development; therefore, the mitigation of and adaptation to climate change are urgently needed. *Back to the Garden* (2012) by the contemporary American novelist, Clara Hume, depicts the experiences of a group of survivors who help each other and overcome obstacles on their journey to find their families in the wake of climate change. This paper focuses on the human connections depicted in the novel and the emotions of the main characters as they struggle for survival. The objective of the study is to examine the human emotions and relationships during the climate crisis and investigate the important role of positive emotions in adapting to climate change. This study applies the theory of emotional intelligence by the American philosopher, Martha Nussbaum, to analyse the relationships and emotions of the main characters in the novel. The result of this study demonstrates that works of literature highlight human reflections on adapting to the new environment and paying more attention to human future destiny by describing human efforts. As the world is experiencing dramatic climate change, the survival and development of human beings will always be a major concern, and the emotional connection between people and the positive mental state of individuals will help us better cope with and adapt to climate change.

Keywords: Clara Hume, climate change, emotional intelligence, humanity, Martha Nussbaum

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E-mail addresses:

gs61548@student.upm.edu.my (Liuna Wei)

idabb@upm.edu.my (Ida Baizura Bahar)

zainor@upm.edu.my (Zainor Izat Zainal)

* Corresponding author

INTRODUCTION

Climate change is rapidly intensifying globally, and extreme weather events and natural disasters have brought significant harm and challenges to human survival and daily life. Humanity is facing a “shared catastrophe” (Chakrabarty, 2009). Mitigating and adapting to the climate crisis

is an urgent issue and has become a major topic of discussion today. Many literary writers have focussed their works on the climate crisis and the future development of humankind. As Dimock (2017) notes in the review of the novel *Borne* (2017) in *The New York Times*, “eco-fiction has come of age as well, wilder, more reckless, and more breathtaking than previously thought” (para. 8). Contemporary American author, Mary Sans Woodbury, writes under the pen name Clara Hume and *Back to the Garden* (2012) is her first published novel. The novel tells the story of a group of survivors who help each other overcome obstacles on their journey to find their families in the wake of climate change. Set in the not-too-distant future, the novel emphasises the dire consequences of human indifference to the environment and the urgent need for sustainable living. It showcases the ingenuity, bravery, and resilience in a devastated world by connecting people with different experiences through a path of renewal and hope. Different from other climate fictions, *Back to the Garden* not only pays attention to the harm caused by climate change but also focuses on people’s emotions and collective activities. It shows people coming together to face difficulties because of emotions, such as love, compassion and sadness. It also emphasises the positive role that emotions play in alleviating collective anxiety and coping with extreme weather.

As we enter the 21st century, scholars have increasingly paid attention to the complex relationship between emotions and

the climate crisis; “This topic is sometimes called the affective dimension of climate change: broadly, it includes many kinds of affective phenomena which are called by different words in various disciplines, including feelings, emotions, affects, and moods” (Hamilton, 2020; Smith & Leiserowitz, 2014, as cited in Pihkala, 2022). It is undeniable that climate change elicits a range of emotional responses in people, including fear of the future, helplessness about the problem, and anger about doing nothing, as well as collective anxiety and climate trauma. On the one hand, the emotional responses to climate change negatively impact people’s physical and mental health; on the other hand, some people “experienced affect and emotion as drivers of climate change perception and action” (Brosch, 2021). However, current academic research has focussed more on the impacts of the climate crisis on human emotions, but the roles of emotional responses on human behaviour in response to the climate crisis need more attention and research.

Based on these insights, we argue that *Back to the Garden* demonstrates the importance of emotional intelligence in the characters’ behaviour in response to the climate crisis. This aspect provides a new direction for climate fiction research, which combines emotional agency and the ecological crisis to explore the impact of emotional intelligence on coping with the climate crisis. To realise this argument, our study focusses on how Hume connects the ecological crisis to human bonds and

emotions, thereby exploring how individual emotions play a key role in facilitating collective action and personal growth in the turbulent environment of climate change.

In order to achieve this goal, our study draws on the theory of emotional intelligence by the American philosopher, Martha Nussbaum (b. 1947). This theory is utilised to examine the difficult encounters of the novel's main characters on their journeys, as well as their efforts to cope with the conflicts between nature and humans, and among human beings. Nussbaum's theory of emotional intelligence emphasises the importance of emotions in ethical reasoning and human flourishing, and that emotions have great impacts on moral decision-makings and collective actions. Human survival and progress depend not only on scientific and technological advances but also on the enrichment and development of emotional capacities. Especially in the context of the climate crisis, people's emotional responses to environmental dilemmas are capable of fostering interactions between people, stimulating individual and collective actions, and provide the potential for climate change mitigation and adaptation.

LITERATURE REVIEW

Since the publication of *Back to the Garden*, some scholars and critics have examined the novel from different perspectives, but the research results have yet to address the critical issue of emotional intelligence for the present. Clode and Stasiak (2014) argue that *Back to the Garden* retreats into

the common trope of fantasy and utopian science fiction, which is the depiction of "an idealised age of agriculture in the face of environmental challenges" (p. 26). In addition, McFarland (2021) focuses on the symbolism of the fertility and pregnancy episodes, which she argues are common symbols of hope for the survival of the species and the rebirth of society, but it "suggests that concern for the future qua the planet can only emerge, or emerges most effectively, from white, heterosexual, familial reproductivity" (p. 13).

Tuhus-Dubrow (2013) examines the experiences and encounters of the main characters described as being "in a journey that's part standard post-apocalyptic narrative and part *Wizard of Oz*" (p. 59) as it demonstrates the dilemma of a barren existence on one hand and personal self-redemption and growth on the other. Also, Hume's warnings about the climate crisis are delivered through experience and emotion rather than charts and scientific jargon. While Bunzl (2014) proposes that *Back to the Garden* is an "emotional infection" (p. 175), he also argues that emotions, when viewed as a strategy for coping with the climate crisis, are psychologically limited. Hence, this study attempts to examine the conflict between nature and humanity, and the main characters' internal struggles, revealing the stimulus and impact of emotional responses to the climate crisis on moral decision-makings and collective actions. However, our analysis focuses on the emotional responses and emotional intelligence of the main characters and

examines their impacts on the search for hope and renewal in the climate crisis.

From a different perspective, Schneider-Mayerson (2018) observes the impact of *Back to the Garden* on readers, leading them to consider the impact of climate change on their personal lives and relationships with friends and family. He posits the view that explicitly linking familiar experiences to climate change can give readers “a vivid sense of the granular and quotidian impacts of unimaginably large-scale changes” (2018). Schneider-Mayerson examines Hume’s writing on climate change and personal emotions from a reader-receptive perspective. While his emphasis lies on aspects of the climate change’s impact on human relationships and emotions, our study offers an alternative research trajectory by focussing on the impact of personal emotional intelligence on aspects of ethical decision-makings and action-behaviours rather than limiting it to only the manifestation of emotions.

Using the framework of Nussbaum’s emotional intelligence, this study explores the issues of conflict and harmony in human nature by examining the main characters’ emotional responses to climate dilemmas. It also examines the role of emotional intelligence as a driver of individual behaviours and collective actions. The intricate relationship between ecological awareness and emotional attitudes is explored within the framework of emotional intelligence. The role of human emotions in self-healing-and in motivating collective actions in order to cope with the climate

challenge is also examined. It is hypothesised in this study that Hume’s portrayals of her main characters’ psychological journeys and emotional attitudes provide a micro-perspective on the climate crisis, where emotional intelligence can help humans better cope with the conflicts and challenges brought about by climate crisis.

THEORETICAL FRAMEWORK

Previous utilitarian theory of justice as propagated by Bentham has focussed on the amount of value gained by the individual and has ignored the deeper emotions of the individual (Nussbaum, 2004). There is less focus on the emotional state of the other person and the issues are fundamentally discussed in terms of interests and rationality. Some scholars view emotion as a thoughtless social force and deny the rational undertones of emotion (Jasper, 1998). In response to these criticisms, Nussbaum (2001) suggests instead that “the attainment of social justice requires both the normativity of reason and the guidance of emotion; reason and emotion are not contradictory concepts; the guidance of emotion is a necessary element of public reason and a necessary way of thinking for the wise bystander” (p. 306).

More importantly, emotions are “intelligent responses to the perception of value” (Nussbaum, 2001). Nussbaum argues that emotions should be a part of social rationality because the philosophical tradition’s accepted definition of emotions encompasses both feelings and beliefs. Indeed, emotions have not only sensual

and intuitive aspects but also an objective rationality within them: “their different responses are closely related to beliefs about how things are and what is important” (Nussbaum, 2001). In her opinion, this is another explanation for how literature can influence public life. Many human emotions serve as a reliable guide for moral behaviour and an accurate assessment of values.

Nussbaum (2004) also suggests that an emotion “is identical with the acceptance of a proposition that is both evaluative and eudemonistic” (p. 193). Emotions, such as love, compassion and grief, are not mere passive experiences but active processes that shape our perceptions, decisions and actions. Nussbaum argues that these emotional responses are essential for ethical reasoning and human flourishing as they enable individuals to respond empathetically and responsibly to the needs of others and environment. Most significantly, Nussbaum’s theory posits that emotions have a cognitive component—they are evaluative judgements that reflect our beliefs about what is important and valuable.

METHODOLOGY

This study examines the issues of climate crisis and emotional intelligence in Hume’s novel *Back to the Garden*. More specifically, the emotional responses of the main characters in the climate crisis are used as the textual basis, and Nussbaum’s theory of emotional intelligence serves as the theoretical framework. From this theoretical framework, a close textual

reading and analysis of *Back to the Garden* is undertaken. In addition, the purpose of this study is to explore the conflict and harmony between the main characters and their environment, and to examine the positive role played by emotional responses. As posited by Schneider et al. (2021), “[a] global-scale social dilemma, ... requires unprecedented levels of cooperation and coordination”. This study will focus on analysing love, compassion and grief in the emotions of the characters within climate crisis. Love is primarily for family and friends and extends to strangers and all living things. The emotion of empathy fills everyone who is experiencing misfortune due to climate change. Also, “[g]rief is a complex emotional response to the loss of a loved one” (Nussbaum, 2001). There follows a discussion of the values reflected in these three emotions and how they affect the moral decisions of the characters, highlighting the importance and value of emotional intelligence in collective action. Thus, it will hopefully demonstrate that emotional intelligence in difficult environments has a positive impact on coping with climate change, adhering to the goodness of human nature, and serving as guardianship for a better future.

Text

Back to the Garden is narrated from the perspective of a group of survivors, presenting a terrifying and tragic possibility for our future. Fran and her friends live on a mountain in Idaho as survivors of a climate crisis. As climate change leads to extreme

weather, species extinction, viruses and resource scarcity, Fran and her friends rely on foraging for food to make ends meet. Worried about their parents, Fran and Elena decide to set off in search of their mothers and fathers. The journey to find their family is full of unknowns and challenges but also implies the hope of survival and the pursuit of a better life.

While depicting the tragic world, Hume does not neglect the relationship between nature and mankind, and the connections between people. She returns to the richness and beauty of the simple life and reveals the goodness and beauty of humanity amidst the tragedy. When Fran and Elena decide to set out in search of their families, they bring along their friends. During their journey, they encounter various trials and tribulations, but they work together to overcome them. They accept people into their group, travel with them and call them their friends. The group grows and they face all the difficulties of the journey, including mob attacks, bad weather, lack of water and attacks by wild dogs. The people in the group suffer many losses, some lose their arms, some lose their possessions and some lose their lives. However, they also gain the most precious sincerity and friendship between people, as well as hope for life.

RESULTS AND DISCUSSION

Conflicts and Challenges in the Climate Crisis

According to Nussbaum (2003), emotions are “elements of our common animality with considerable adaptive significance:

so, their biological basis is likely to be common to all” (p. 141). She emphasises that different societies and cultures play different roles in shaping emotions. Although animals have the same abilities to perceive emotions as humans, humans have a richer range of emotions and subtle experiences. This is mainly because human beings are influenced by social environment and cultural awareness as suggested by Plumb (2014), “variations in the physical environment can variously expose people to risk, thus affecting their experience of vulnerability” (p. 157). When the social environment changes drastically, people’s understanding of danger, life and family may change, thus affecting the process of emotional generations and perceptions.

There is no doubt that ecological destruction and environmental collapse are important themes in *Back to the Garden*. This novel depicts the deterioration of the environment, such as climate change, depletion of resources and the spread of diseases. As proposed by Froese and Schilling (2019), “[c]limate change and resource scarcity are increasingly perceived as multipliers of risks” (p. 24). These challenges of the external environment put enormous pressure on the characters’ survival, forcing them to adapt and fight, which is the main reason for the conflicts and challenges that human beings face to survive and live; “Particularly over the last few decades, climate change has brought about a marked increase in extreme weather events, habitat and biodiversity loss, and associated economic, health, and wellbeing impacts” (Edwards et al., 2025).

In addition, climate change has exacerbated conflicts between humans and animals. With the loss of habitat and the scarcity of resources, wild animals and humans compete fiercely for limited living space. As argued by Abrahms (2021), “[t]hese clashes largely stem from the co-occurrence of humans and wildlife seeking limited resources in shared landscapes and often have unforeseen consequences” (p. 484). In the novel, with extreme scarcity of resources, both animals and humans compete for limited resources for survival, which is a direct response to the disruption of ecological balance: “One night, while they were camping, a pack of wild dogs attacked their campsite, drawn by the smell of their food. The group had to fend off the dogs with makeshift weapons and fire” (Hume, 2012). As a result of habitat loss and resource scarcity due to climate change, wildlife is forced to move into human living areas in search of food and water, while extreme weather and environmental degradation make wildlife behaviour more unpredictable and dangerous. As one study shows (Guarnieri et al., 2024), the increase in farmland density and population density, and the emergence of climatic extremes have become important factors contributing to human-elephant conflict in Africa and Asia.

In their study, Barnett and Adger (2007) state that “climate change may undermine human security and may, in conjunction with an array of non-climate specific factors, increase the risk of violent conflict” (pp. 643-644). For example, a study by McGuirk and

Nunn (2025) has shown that reduced rainfall in the territories of transhumant pastoralists in the African region can lead to conflict in neighbouring areas. This is because pastoralists need to rely on migration to obtain enough vegetation to sustain their livestock, where competition for the strained resources of water and pasture can lead to violent conflict. Likewise, the resource tension and existential pressure triggered by climate change have led to intense conflict between the characters in the novel. *Back to the Garden* reveals the multiple conflicts between characters in the context of climate change through meticulous plot descriptions. These conflicts not only reflect the far-reaching effects of resource scarcity and survival pressure on human society but also demonstrate the complexity of human emotions and relationships in extreme environments. In this context, Adger (2010) suggests that “climate change will not only intensify competition for resources but will also create more conflicts between collective decision-making and individual will” (p. 335). Fran’s community, for example, must work together to sustain their livelihoods but the needs of the individual and the needs of the collective are often in conflict: “The world had always had resource wars” (Hume, 2012). This is because the management of these resources requires both collective support and the challenge of individual interests. Individual wishes are often ignored or suppressed in collective decision-making processes. In the face of existential pressures, the collective has to make difficult decisions that may contradict

individual wishes. Such conflicts are often more pronounced, especially in difficult circumstances. As Wierzbicka (2003) puts it, “[i]n most other societies, however, dangers, disasters, and the general vulnerability of the human condition appear to be much more in focus” (p. 598). Thus, it is precisely in these conflicts and challenges that people’s emotions become more prominent, when emotional intelligence becomes particularly important in resolving collective anxieties and making ethical choices.

The Emotional Intelligence of the Main Characters

Emotional intelligence, to put it simply, is the capacity to comprehend and regulate one’s own as well as others’ emotions. The emotional states of characters are closely associated with their natural surroundings, and the tranquillity or turmoil of that environment directly influences their mental well-being. Nussbaum states that emotions are our rational responses to external things and can profoundly influence our moral judgements and actions. They are described as “forms of evaluative judgment that ascribe to certain things and persons outside a person’s own control great importance for the person’s own flourishing. Emotions are thus, in effect, acknowledgments of neediness and lack of self-sufficiency” (Nussbaum, 2001).

This study focuses on love, compassion and grief shown by the main characters in the novel as we hypothesise that these three emotions not only shape the inner world of the characters but also drive the plot

in the context of the climate crisis. More significantly, they are the main motivators for making moral decisions and actions. Here, Oberman (2024) agrees with Nussbaum’s understanding of emotion as a discursive resource that informs moral consciousness, exploring emotional responses to climate change as manifesting in ongoing analytical judgements. Emotional experiences do indeed encompass moral responses to climate change.

In *Back to the Garden*, the themes of emotive acumen and the relationship between humans and nature are intricately intertwined, highlighting the complexity of human survival and adaptation in the context of the climate crisis. The complex emotional responses of the characters are demonstrated through subtle emotional depictions, which include fear, anxiety, sadness, remorse, hope, resilience, anger, helplessness, guilt and responsibility. Significantly, according to Clayton et al. (2017), psychological stresses triggered by climate change include anxiety, depression and post-traumatic stress disorder (PTSD). These psychological reactions not only affect the daily lives of individuals but also have impacts on the social fabric of communities. In addition, Gifford (2011) suggests that uncertainty and catastrophic events brought about by climate change often led to feelings of helplessness and powerlessness, which can trigger a wide range of social and psychological problems. However, Nussbaum argues that these emotions contain perceptions of value and morality that are important for people in order to make moral decisions. As Boss

(2024) argues, Nussbaum's perspective, which goes beyond narrow material needs to make moral needs explicit in difficult dilemmas, has "been widely influential amongst the cofacilitation approaches to the climate crisis" (p. 9).

In *Upheavals of Thought: The Intelligence of Emotions* (2001), Nussbaum argues that love is a strong emotion that involves a strong attachment to and high regard for an object. The importance of emotional experiences stems from their connection to the feelings and understandings we already have. She proposes that love is profound because it is often linked to our love for our parents and our need for comfort and security; "[i]t is when it is brought into relation with that which we already understand- with our intense love of a parent, our passionate need for comfort and security- does such a thing start to matter deeply" (Nussbaum, 2001). More importantly, comfort and security are the most basic human needs. When we feel love, it is usually accompanied by a sense of security and being taken care of as well. These are precisely the "ways of registering [or fully acknowledging] how things are with respect to the external (i.e., uncontrolled) items that we view as salient for our well-being" (Nussbaum, 2001). In view of this, love in the novel is mainly expressed as Fran and Elena's love for their family. When Fran's mother and Elena's father leave them, they always inevitably think of their parents in many scenes and get caught up in worrying and missing them: "He never left his obligations, only his love of life. And I missed him

terribly" (Hume, 2012). Indeed, this is a clear indication of the need for security and comfort. Since Fran and Elena's parents are not around, they lack security from their parents, especially in the harsh environment after climate change.

As Nussbaum argues, love is typically malleable and nations without love go wrong because of this narrowness; lacking love, we are indifferent to the suffering of others. Love is not just a private emotion but an essential component of social justice. Through the teachings of stoicism, we learn to love a particular individual while focussing on the well-being and justice of society. In this way, we can express our love for a particular individual without losing our universal respect for all human life. Here, Nussbaum is of the opinion that this helps us to avoid being too emotionally biased in favour of one person at the expense of caring for and respecting others. In the novel, as Fran and her friends set out to find their parents, they extend their love for their family to the people they meet on the road and even to the animals. They worry about the safety and survival of all living things, which considers love for the creatures of the earth. Varghese and Humphreys (2024) argue that this involves considering human and non-human interests equally. At this point, we can deduce that love is not only a personal emotional experience but a complex emotion with cognitive and ethical values that helps us to better understand ourselves, others and the world.

Regarding compassion, it is simply the direct perception of another person's suffering and the desire to alleviate it.

Nussbaum (2003) proposes that “[c]ompassion is an emotion directed at another person’s suffering or lack of well-being. It requires the thought that the other person is in a bad way, and a pretty seriously bad way” (p. 14). Here, compassion involves recognising the humanity and dignity of others, regardless of their circumstances. According to Nussbaum, compassion requires us to look beyond our self-interests and prejudices, and empathise with the pain and needs of others. It is important to emphasise that empathy is an empathetic recognition of the suffering inflicted on another being, and the hope that it will help to alleviate that suffering. However, the purpose of empathy is not to eliminate suffering directly but rather to enable another person to bear the suffering, seeing this as a way of mitigating and alleviating feelings of pain.

The final issue to be discussed in this study is grief, which is a profound sense of loss and mourning that includes both emotional and cognitive aspects. Firstly, grief is a reflection on the meaning of loss. According to Nussbaum (2001), grief is a natural response to loss, whether it is the death of a loved one or any other major change or transition. Grief often involves a strong emotional experience, which is usually painful and reflects the deep emotional connection that humans have to what they have lost. It has been described as “[a] specific episode of grief combines a background judgment of value with a noting of the way the world is with what one values” (Nussbaum, 2001). Beran (2024) argues that:

Nussbaum’s account shows that the experience of grief does not differ significantly whether we grieve spontaneously and immediately or not. At least some cases of grief do not involve being directly hit with the facts of a situation but rather spontaneously responding emotionally to something one (implicitly) recognises as important. Feeling grief is connected to this recognition (p. 8).

In *Back to the Garden*, grief is an important emotional theme that runs through the main characters’ experiences and emotional responses. Through subtle emotional depictions, Hume portrays the characters’ feelings of grief in the face of climate crisis and personal loss: “The cold day’s lamentation reflected that lost and frightening feeling” (Hume, 2012). When Cameron loses his life due to the sudden appearance of a wild bear, Daniel is devastated and angry as he watches his child dies: “Daniel laid out Cameron on the kitchen table and Elena, horrified, sunk to the floor moaning and wailing. I had never seen a human so torn apart. Daniel was too but chose to be silent” (Hume, 2012). As Nussbaum (2001) puts it, “[w]hat inspires grief is the death of someone beloved, someone who has been an important part of one’s own life”. This is a clear yet heart-breaking example of a father’s passionate love for his son, as well as his infinite regret and great sorrow for his loss.

Significantly, Nussbaum (2001) acknowledges the cultural and social dimensions of grief, recognising that the

ways in which individuals experience and express grief are influenced by social norms and practices. She suggests that “grief, like all other human emotions, is culturally mediated” (Nussbaum, 2001). In the context of climate change, the importance of a common human destiny and interdependence is deeply understood through emotional responses to loss. Grief is not only an emotional response to loss, but also a cognitive and ethical reflection. It leads to a deeper understanding of the value of life and the common destiny of humanity in the face of adversity.

Ethical Decision-making and Collective Action

As discussed earlier, in her book *Upheavals of Thought: The Intelligence of Emotions*, Nussbaum debates in detail regarding the role and significance of emotions, such as love, empathy and grief. Love, for example, plays a key role in interpersonal relationships and is an important motivator of ethical behaviour. Through love, people are able to build deep social bonds and promote social cooperation and mutual assistance. Compassion, on the other hand, prompts us to be attentive to the rights and needs of others and to consider the well-being of others in ethical decision-making. This emotion is an important part of the moral aspect of life and helps us to build a more just and caring society. Grief, in contrast, reminds people to value the important things in life, to develop a deeper empathy and understanding of the suffering of others, and to reflect on

their own behaviour and values. Thus, this contributes to their own growth and moral progress. In sum, emotional intelligence plays an important guiding role in moral decision-makings, enabling people to recognise and understand the emotional states of others. That is essential for fair and just moral decision-makings. Moreover, emotional intelligence enables individuals to build closer social bonds, promote teamwork and mutual assistance, as well as communicate and coordinate effectively. This is conducive to the achievement of collective goals and the promotion of social progress.

In *Back to the Garden*, influenced by emotional intelligence, the main characters make appropriate moral choices and work together in solidarity to face the challenges. Ultimately, they work together to find hope for survival and a better future. A notable example of this is Daniel’s behaviour after the death of his son due to an attack of a wild bear in the novel. Despite the loss of his beloved son and experiencing deep pain and struggle, Daniel resists the urge to shoot the wild bear. For such a tragedy:

An interpretation of the learning procedure that can be initiated by the confrontation with tragedy that is more suitable to tragic experiences in real life has been developed by Martha Nussbaum. Tragedy confronts us with an experience of the fragility of goodness. It can lead us to a radical questioning of current ethical standards and of merely rational approaches to understanding the ethical life and, like radical hope, it can

enable us to generate new conceptions or a deeper understanding of the good life (Bauer, 2025).

Overwhelmed with considerations for the ecosystem, human life and future generations, love for family and friends, grief for the loss of their homes, and sympathy for all living creatures, Daniel decides to abandon his personal hatred, coexist with the wild bear and continue to move forward to find hope with everyone.

As posited by Schneider et al. (2021), “[a] global-scale social dilemma, ... requires unprecedented levels of cooperation and coordination”. With regards to this perspective, academic research has shown that emotional intelligence is critical in managing the human-nature relationship. According to Goleman (1995), emotional intelligence includes self-awareness, self-regulation, motivation, empathy and social skills, all of which are necessary for effective environmental protection and conflict resolution. Cherniss (2000) further suggests that people with high emotional intelligence are more likely to engage in environmentally friendly behaviours because they can empathise with the wider impacts on the ecosystems.

Back to the Garden can be seen as a journey in pursuit of a better world and a normal life. It depicts the natural and social changes brought by climate change and highlights the conflict and harmony between human beings and nature as well as between human beings and each other. Critically, the “garden” of the novel symbolises a beautiful

hope and new life, while returning to the garden emphasises a search after loss, a difficult process of regaining what has been lost and what is normal. We argue that the depictions express Hume’s concern and reflection on the destruction of the human world by climate change. It highlights her cherishing of harmony during all kinds of conflicts, her belief in the goodness and beauty of human nature, and her yearning and hope for a better future.

Adaptation and Mitigation of the Climate Crisis

Environmental changes are forcing humans to adapt their way of life to meet the increasingly severe challenges of nature. Fran’s mother warns her that: “If you stay here, you’ll wither up like this godforsaken land and die young” (Hume, 2012). As seen here, climate change has brought great challenges to human survival and life; the deteriorating natural environment, and fewer and fewer natural resources can no longer meet the basic needs of human survival, forcing people to change their lifestyles to adapt to climate change: “Such as constructing seawalls to protect against sea-level rise, developing drought-resistant crops to ensure food security, and implementing early warning systems for natural disasters.” (Heath, 2024). Driven by love and hope, Fran and her friends decide to move forward in search of more resources for survival. They change their diet and behaviour on the journey, adapting to the difficult environment with resilience. It has been posited that:

Emotions are important drivers of behaviour, as they guide attention, shape cognitions, and create impulses and motivations to act. In the same vein, emotions of both positive and negative valence experienced in relation to the climate crisis have repeatedly been demonstrated to be among the most significant determinants of pro-environmental decision-making and behaviours (Kovács et al., 2024).

Each of the characters in Hume's book is empathetic. They feel the pain of others, even though they have not known each other for a long time; they feel the pain of the other person and try to find a way to help them. For instance, when Fran first meets Kane, she quickly lets down her defences: "My impression after I put the rifle down was that he was not dangerous" (Hume, 2012). Since she knows deeply how difficult it is to survive alone in a harsh natural environment, she can understand Kane's self-protective behaviour at the beginning and feels the desire of a person to survive. Therefore, such scenes are repeated throughout their journey as Fran and Elena accept everyone they meet on the road. Despite their different identities and encounters, she chooses to believe in and help them, calling all of them friends and taking them along for the ride. As proposed in a study on Nussbaum:

It will be highly unlikely that the people of the future will not have feelings of love or compassion, flee from death, and enjoy sensory experiences and

a landscape rich in opportunities to live flourishing lives, to use Martha Nussbaum's terms (Gómez-Franco, 2024).

The characters in the novel extend compassion and love to others and animals, and engage in collective action to find natural resources and protect wildlife in order to maintain ecological balance, which goes some way to alleviating the climate crisis.

According to Goleman (1995), emotional intelligence includes self-awareness, self-regulation, motivation, empathy and social skills, all of which are necessary for effective environmental protection and conflict resolution. Cherniss (2000) further suggests that people with high emotional intelligence are more likely to engage in environmentally friendly behaviours because they can empathise with the wider impacts on the ecosystems. Consequently, emotional intelligence plays an important role in ethical decision-making and collective action, and can help us better adapt to and mitigate the climate crisis.

CONCLUSION

As a climate novel, *Back to the Garden* by Hume shows the connections and bonds between human beings, and the kindness and morality of characters trapped in the climate crisis. Our analysis has demonstrated that applying the conceptual framework of emotional intelligence has been beneficial in revealing the driving force for making appropriate moral decisions

and collective actions for the characters trapped in the climate crisis. Indeed, it plays an important role in promoting individual moral growth and enhancing collective cohesion. Although the characters in the novel unite to find a new hope for their lives yet, in the end, they return to the mountain and do not find a better life. This outcome indicates that, while human emotions and actions are important, the characters still need to explore more effective strategies to better cope with and alleviate the climate crisis.-

In this study, Nussbaum's theory of emotional intelligence has been used as a lens to explore the issues of climate crisis and emotional ambivalence in the novel. The main theoretical contribution of this study is the importance of the emotional dimension in climate cognitions and actions. By examining the ambivalence in *Back to the Garden*, this study highlights emotional intelligence as a crucial body of knowledge bridging the issues of climate change, ethical responsibility, and practical action. Furthermore, the findings of this study provide viable insights into the possibilities and limitations of the conceptual nexus of emotional intelligence in climate fiction, thereby promoting the adaptation and evolution of the emotional intelligence theory for the Anthropocene. Due to the global, intergenerational, and comprehensive complexity of the climate crisis, there is a greater need to develop emotional intelligence adapted to the Anthropocene. As such, this study contributes a significant emotional dimension to a more

comprehensive and humanistic approach to climate fiction research, highlighting the important role of emotional intelligence and the challenges that it faces.

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Traditional Knowledge in Indonesia Rural Development, Cultural Living or Cultural Heritage: Evidence in North Tapanuli Regency, Indonesia

Muba Simanihuruk¹, Rizabuana Ismail^{1*}, Devi Sihotang¹,
Mohamed Thariq Hameed Sultan², Salamah Thomasita Batubara³, and
Mohammad Dandy Goesti⁴

¹Department of Sociology, Universitas Sumatera Utara, Medan, Indonesia

²Department of Aerospace Engineering, Universiti Putra Malaysia, Serdang, Selangor, Malaysia

³Department of Health and Pharmacy, Universitas Bani Saleh, Jakarta, Indonesia

⁴School of Computing and Technology, Asia Pacific University of Technology & Innovation, Data Science and Bussines Analytics, Kuala Lumpur, Malaysia

ABSTRACT

This study examines the contribution of Traditional Knowledge (TK) to the Village Development Index (*Indeks Desa Membangun*, IDM) following the implementation of Law No. 6/2014 on Village Administration in Indonesia, with a specific focus on North Tapanuli Regency, home to the majority of the Batak Toba ethnic group. TK is a critical element in local development discourse, particularly as modernisation has often failed to deliver sustainable development outcomes in many developing countries. Adopting a qualitative research approach, data were collected through in-depth interviews and literature review. Seven key informants were interviewed, including traditional leaders from the *Dalihan Natolu* (Three-legged Stove) institution, village heads, sub-district officials, directors of village-owned enterprises (*Badan Usaha Milik Desa*, Bumdes), NGO activists, and local pastors. Data triangulation was employed to enhance the credibility and depth of findings, aiming to construct a holistic understanding of the research phenomenon. Thematic analysis of interview transcripts revealed that TK is still predominantly treated as cultural heritage (CH), rather than being embraced as a living

cultural framework (Cultural Living, CL) that guides village leadership behaviour in managing village funds. Currently, TK mainly governs social and ceremonial aspects of community life—such as weddings, funerals, and traditional rituals—rather than informing governance or development strategies at the village level.

Keywords: Batak Toba ethnic, indigenous development, traditional knowledge, village developing index, village fund

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E-mail addresses:

muba@usu.ac.id (Muba Simanihuruk)

rizabuana@usu.ac.id (Rizabuana Ismail)

devisihotang93@gmail.com (Devi Sihotang)

thariq@upm.edu.my (Mohamed Thariq Hameed Sultan)

salamah@ubs.ac.id (Salamah Thomasita Batubara)

dandygoesti@gmail.com (Mohammad Dandy Goesti)

* Corresponding author

INTRODUCTION

Development in most of the countries in the south world is currently undergoing deadlock; it is caused by the incidence of development approach in this area as the repetition of modernisation approach in the northern region. Portes (2015) and Kassam (2002) point out that the world countries only acknowledge the superiority and the specification of their development values and ignore the development values in the countries of the south even though many things are paradoxical in these two areas. The modernisation approach is a cultural colonisation (Said, 1994) that is usually propelled through invasion and institutional violence by Western countries (Cobb, 2012) so that developing countries will follow their ideology and trend of modernisation development.

Indonesia post of the Old Order regime was characterised by high economic inflation (600%) and high poverty levels. This was a direct impact of the global order characterised by the rivalry of communist versus nationalist and religious political ideologies. The instability of the Old Order regime is considered to be an implication of the Old Order's political bloc, which was considered to be oriented towards the social-communist Eastern bloc. The instability and economic downturn of the Old Order regime paved the way for the New Order regime to choose the path of modernisation as a development paradigm. A further implication of this modernisation approach is that it puts development as the "commander" and ignores the heterogeneity

of Indonesian society and culture. Indonesia, which consists of approximately 250 ethnic groups, was "homogenised" for the sake and in the name of economic development. This was made possible by authoritarian political leadership and an iron fist. This emphasis on economic development, along with the colonisation and evangelisation of the heavenly religions, made the local wisdom of the 250 ethnic groups wither and slowly disappear (Anderson, 1990; Feith, 2006) .

Indonesia is one of the countries that chooses the way to development by using the modernisation approach as the economists' thinking from Berkeley University, the U.S.A, that is known as Berkeley Mafia, the jargon of taking off which was usually proposed by the late President Suharto whose regime lasted almost four decades in the New Order era, a term suggested by Rostow in the theory of social development that is described in the following Picture in Figure 1 (Rostow, 1991; Solivetti, 2005).

The deadlock in regional development in the southern area in general and the developing countries, in particular, has encouraged some experts to turn to indigenous discourse and indigenous development.

This research is attempting to exploit the contribution of TK in encouraging rural development in general so that IDM (Village Developing Index) can be achieved based on the regulations of the Indonesian government. This approach is relevant because, according to some studies, Batak Toba ethnic is considered to have its adat (customary or traditional) system, such as

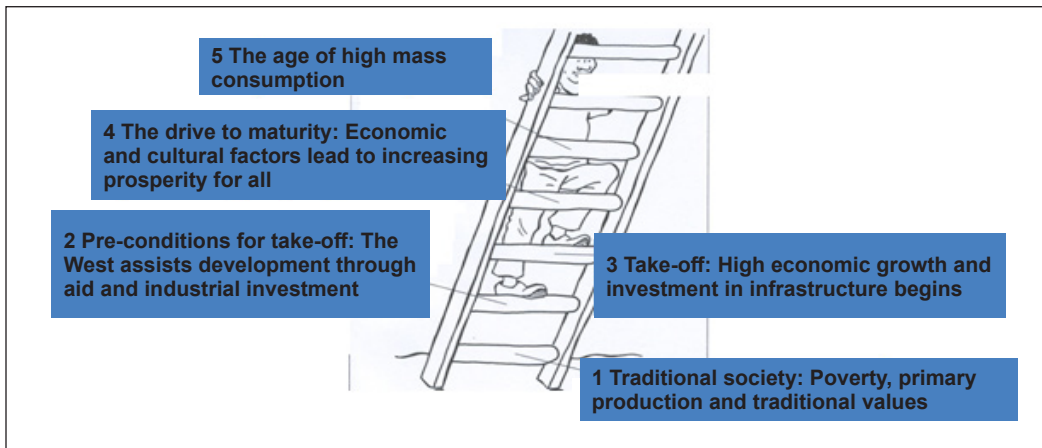


Figure 1. Theory of economy or modernisation development
Source: Rostow, 1991; Solivetti, 2005

village administration system (*huta*) and regulation on land ownership (Cattles, 2001; Vergouwen, 2004) which includes the system of the election for village head based on Batak Toba custom which is known as *si soli-soli* (Simanihuruk et al., 2023). In other words, every ethnic group or indigenous group of people in Indonesia has its self-governing capacity. The contribution of this TK is interesting to analyze in the post-implementation of Law No. 6/2014 on Village Administration, issued by the Indonesian government. It is because, since 2015, ADD (Village Fund Allocation) has begun to be transferred by the central government to villages directly as a part of budget politics to increase development in rural areas. Fiscal decentralisation at the village level is a radical policy because it has changed the paradigm of development, which used to be a centralised and up-down system, to the paradigm of decentralised development and a bottom-up system. This policy is also considered an affirmative

policy as the realisation of partiality toward rural development (Mahendro, 2013). A study on fiscal decentralisation used to be more dominant at the level of districts/towns. However, nowadays, fiscal decentralisation at the village level has become the attention of some researchers. It can be concluded that the policy of ADD, based on the previous research results, has been able to increase rural development (Malau & Hotman, 2023). Some other researchers also have the same opinion; they point out that ADD has been successful in increasing farmers' production and income in rural areas (Indraningsih et al., 2021). The increase in farmers' production and income is in harmony with the improvement of the link transportation and interconnection between villages and markets so that agricultural products are easier to market. Even though ADD has been successful in increasing the IPD (Village Development Index) and IPM (Human Development Index), it does not automatically decrease the poverty rate

(Rimawan & Aryani, 2019). Unfortunately, Village Fund Allocation, at a certain level, becomes a “fertile ground” for corruption in villages (Ginting et al., 2024). Another study by Dhewanto et al. (2020) reveals that ADD has not been able to bring about village entrepreneurs, so therefore, collaborated participation to strengthen local economic conditions in rural areas.

LITERATURE REVIEW

TK as an Alternative for Development in Modernisation Deadlock

Development in developing countries, including Indonesia, might be a myth in the rivalry of the global world, which is indicated by “globalisation empowerment and national impoverishment” (Rivero, 2001). This lag or backwardness occurs because developing countries have chosen a modernisation approach from the West and is considered incompatible with the context of cultural and religious diversity in this area. Modernisation is the repetition of the history of Western colonisation through cultural colonisation (Said, 1994) toward the countries in the southern part. This new form of colonisation encouraged philosophers in Latin American countries and developing countries to turn to indigenous discourse and indigenous development. Indigenous development is considered an oasis during the failure of the modernisation approach.

TK is expected to be a hope for the future because it is the result of the thought of the community through long experience in a sustainable time frame in cross-generation which other communities may not own. The

values will adhere tightly to the community and have been internalised over time (Fajarini, 2014). Geertz (1992) points out that TK is acknowledged as owned by a local community; it is a cultural system guided by local people, and it is a part of their identity that is instilled sensitively. The crucial point concerning this local knowledge is in the meaning; cultural interpretation is “not experimental knowledge in searching for law, it is an interpretative knowledge in searching for meaning.” The system of TK is usually considered an irrelevant study; it is only an exotic study even though it is believed and followed by 370 million traditional communities in 90 countries. Colonisation in the indigenous people’s territories in the 15th century, among others, will eventually weaken TK. Cartesian thinking diffusion rapidly spreads out into the *adat* communities’ territory and slowly but certainly will shake TK so that at a certain level, it will revoke them from their identity and their local wisdom (Subramanian & Pisupati, 2010).

TK is dynamic knowledge, and it is far different from modern knowledge. Meanwhile, modernisation values are the values that come from and developed in Europe in general as a fertile ground for the awakening of capitalism. The indicators of modern values are seen from the values of hard work, valuing time, postponing hedonism, accumulating profit, freedom, need for achievement, secularism, scientific advancement, and technological and innovative application. The process of modernisation is the transformation of

religious and metaphysical values toward the values of knowledge, secularism, rationalism, and technological innovation. Therefore, modernisation ideology is glorified as superior and high-cultured values and traditional values are in harmony with inferiority and popular culture. In the development discourse, in many things, there is the hegemony of modern values on TK. The dichotomy of traditional values versus modern values cannot eventually be avoided. The first values (modern values) are considered superior to the later values (traditional values). In the extreme, those who adore the theory of modernisation glorify this theory with the jargon, “traditional is bad and modern is good,” even though cultural freedom (knowledge) is the right of every man to possess and create his own culture, which means that every culture has the equal right to understand through his way to know it respectively (Haverkort & Reijntjes, 2010). Integrating traditional knowledge with modern Western knowledge is a bridge to build the theory of ethno-development or ethno-developed for developing countries to flourish, not to replicate European countries’ development values and approaches. Global knowledge disparities drive this integration and aim to transform traditional knowledge into modern theories and methodologies (Shen et al., 2024).

Characteristics of Traditional Knowledge (TK)

COMPAS (Comparing and Supporting Indigenous Development) was an

international institution that cared about cooperative programs in 1995. Funded by NGOs and governments in Africa, Asia, Europe, and America, it has conducted research on TK for more than ten years. It finally concludes the general characteristics of TK as follows:

1. The most worthwhile lesson of TK is holistic. Even though it is very varied, its general description includes three domains that cannot be separated from one another: 1) the natural world, 2) the social world, and 3) the spiritual world (as can be seen in the picture below).
2. TK, which is included in the natural domain, includes knowledge about soil, plants, climate and animals, the use of traditional land, agriculture, and practices on health.
3. The social world domain includes local organisation, local leadership, management of natural resources, cooperatives, resolution of conflicts, gender relationships, art, and language.
4. Spiritual domain includes knowledge of and belief in the spiritual world, sanctity, spiritual powers, ancestors, ritual practices, and festivals.

Further, the result of the research on TK concludes that the system of TK has the characteristics as follows:

1. Non-dualistic: Do not distinguish the subject of research from the object of research, thinking from matter, or man from nature.

2. Dynamic: Each traditional knowledge has its way of learning, experimenting, the teaching itself, and TK always attempts to search for consensus.
3. Informal: Learning occurs in daily life; it happens in a family, an ethnic group, and a local community. Learning is not always documented or written.
4. Sometimes TK can mean a secret and sanctity when the local knowledge is monopolised by certain traditional leaders such as spiritual counsellors, holy people, predecessors, and ancestors,
5. The system of TK is related to spirituality. It contains the values of life and spirituality while predecessors and those who are not born yet play the role. The important sources on TK can be holy people, sacred places, and holy books.
6. The meaning of time is not considered linearly (commending from the old days to the present time and to the future. Time is often viewed as a cycle or spiral. Its quality is not always the same; it can become a good token for certain moments. Its frame can last for a very long period.
7. The method is not merely limited to rationality, and quantitative and qualitative research can be verified. Intuition and meditative methods, learned from the inside, become a part of reality and play an important role in the scientific method. Experience, participation, soothsayer's point of view, community tradition, good advice from older people, dreams, initiative/initial ritual, consuming alcohol and stimulants, reflection, and communication with the spirits of the ancestors are all very important.
8. The reciprocity of man with nature and the spiritual world is expressed in sacred rules, sacrifices, and rituals/festivals.

METHODS

This research used a qualitative paradigm approach. In qualitative research, the researcher is the main research data collection tool. Researchers and research assistants conduct in-depth interviews with key informants who are considered “knowledgeable agents” (Gomes et al., 2023) who know the theme or problem being studied. The data were gathered by conducting in-depth interviews and a literature study. In-depth interviews and triangulation were conducted with seven (7) key informants, including traditional leaders of the *Dalihan Natolu* (Three-legged Stove) institution, village heads, district official elites, directors of village-owned enterprises (*Badan Usaha Milik Desa or Bumdes*), non-governmental organisation activists and pastors. Research validation is expected to be obtained through data triangulation from various key informants as well as to

produce complete and in-depth data. Data was collected through in-depth interviews for approximately two months (May to June 2023). The interviews were conducted at the locations of the key informants after scheduling appointments. Interviews with key informants from government officials were conducted multiple times because the interviews were sometimes interrupted due to the key informants' busy schedules. Data collection was halted when there was a repetition of answers or saturation from the key informants regarding the research theme/topic, indicating that the research questions had been adequately addressed. Thus, the research phenomenon being studied can be described holistically. Interview transcripts were then analysed based on themes and research problems. Literature study itself is defined as research about the summary or important points of a journal, a book, or a document; either they occurred in the past, or they appear at the present (Creswell & Poth, 2016).

RESULTS AND DISCUSSION

Batak people in general and Batak Toba in particular are one of the 19 *adat* communities in Sumatera (Ginting et al., 2024). If this condition is traced back further, the Batak Toba community, according to some researchers, really has a complete traditional government system so that it fulfills the requirements for governmental sovereignty, which is usually called a mini state. However, this idea is denied by Cattles (2001), who points out that the Bataknese community is a community that has no country or is

stateless. An autonomic government is usually at the level of a village. Therefore, the ethnic groups in Indonesia have their terms in calling a village. Even though villages in the Indonesian archipelago in the old days and in Indonesia today have self-governing capacity; however, *huta* (village) in the Batak Toba area has uniqueness because, according to the Batak Toba *adat* (customary) law, every town in the Batak Toba land must be led by *marga pamunggha huta* (the clan that has established the village). The first descendant who established the *huta* (village) is called, *marga sipungka huta*. A clan is one of the main identities of the Batak Toba ethnic and the Bataknese community in general. A clan is also important in the system of kinship terminology. Silalahi (2014) further points out that autonomy and democracy in every *huta* are very strong in the Harjaon Batak Toba, compared with *huta* in Tapanuli Selatan, Karo, Simalungun, and Dairi. A *huta* or village that is established by them or by their ancestors is considered as their possession, which other people must not control. The other Raja *huta* (village chief) is, of course, respected by the villagers, but it does not exceed the homage of the village chief's power itself. Along with the increase in the lineage of clan descendants and the influx of new clans who got married to the daughters of the founder clan, some villages then agreed to cooperate. This confederation was called *horja*. It was established, first, to manage any affairs which involved some villages, such as the problem of irrigation, which water flowed through some villages;

secondly, to anticipate a threat and an attack from the neighboring villages because of the issues of land (*golat*), irrigation, and security. Along with the increase in the population and the people's complexity of issues, some *horja* agreed to collaborate and establish confederation. This confederation was called *bius*, which means, according to Sitor Situmorang, a mini state. In the last step, *bius* also established a confederation under the dynasty of Sisingamangaraja.

In the level of government, *bius* is led by Raja Junjungan, provided with the institutions of Pande Bolon, Pande Raja, Pande Mulia, Pande Namora and Raja Parbaringin. The next *horja* level is led by Deputy Raja Junjungan, aided by Raja Saniang Naga institution (Deputy Pande Raja), Raja Parsirambe/Patuatgaja (Deputy Pande Mulia), Raja Mamburbulang/Raja Parjuguk (Deputy Pande Namora), and Raja Parbaringin. The last *huta* level is led by the Administrator and aided by Undut Solu institution (King of the Sea) Deputy King Saniang Naga, Pangulu Raja (War Chief), Deputy Raja Parsinabul, Pande Aek (Expert in Agriculture), Deputy Raja Parsirambe, Pangulu Dalu (Expert in Animal Husbandry), and Deputy Raja Mamburbulang and Raja Parbiringin. All of them can be seen in the following Figure 2.

However, the existence of this autonomic government slowly but certainly changed, along with the colonisation and the birth of the Indonesian government. History has recorded that Dutch colonial began to organise villages by issuing Article 71 of *Regeerings Reglement* 1854 or Article 128

of *Indische staatsregeling*. On the validation of a Resident, villagers had the right to elect their village head and their own Village Administration. A long history of the supra-state grip on village administration can be seen from the change in legislation that regulates villages in Table 1.

A long series of amendments to laws from 1945 until 2004 had paralyzed the independence and the capacity of village administration to manage itself. Then, how about the condition of this TK in the current condition? TK which is found in Tapanuli Utara Regency today is 1) *sistem sisoli-soli* or Wheel of Fortune (2) *sakke hudali* or hang up the hoe, and (3) *lubuk larangan* or Traditional no-fishing zone. The functions of these three types of TK are as shown in Table 2.

TK is explained briefly in the life of the Batak Toba Community in Tapanuli Utara Regency as follows:

TK *Sisoli-Soli* (Wheel of Fortune)

Si soli-soli is the election of village heads in the *adat* system. It is often called *ganti soring*. Its *adat* advice says, *sisoli-soli uhum, siadapari gogo*, which means giving each other and helping each other. Philosophically, power in Batak Toba community should be distributed fairly in daily life; it is practiced by giving and taking. It should be rotated among the clans as the founders of villages, fairly like a rotating wheel. *Si soli-soli* organises the election of village heads by turns among *marga pamungha huta* (the clans as the founders of villages). When a town, for example, is established by three clans

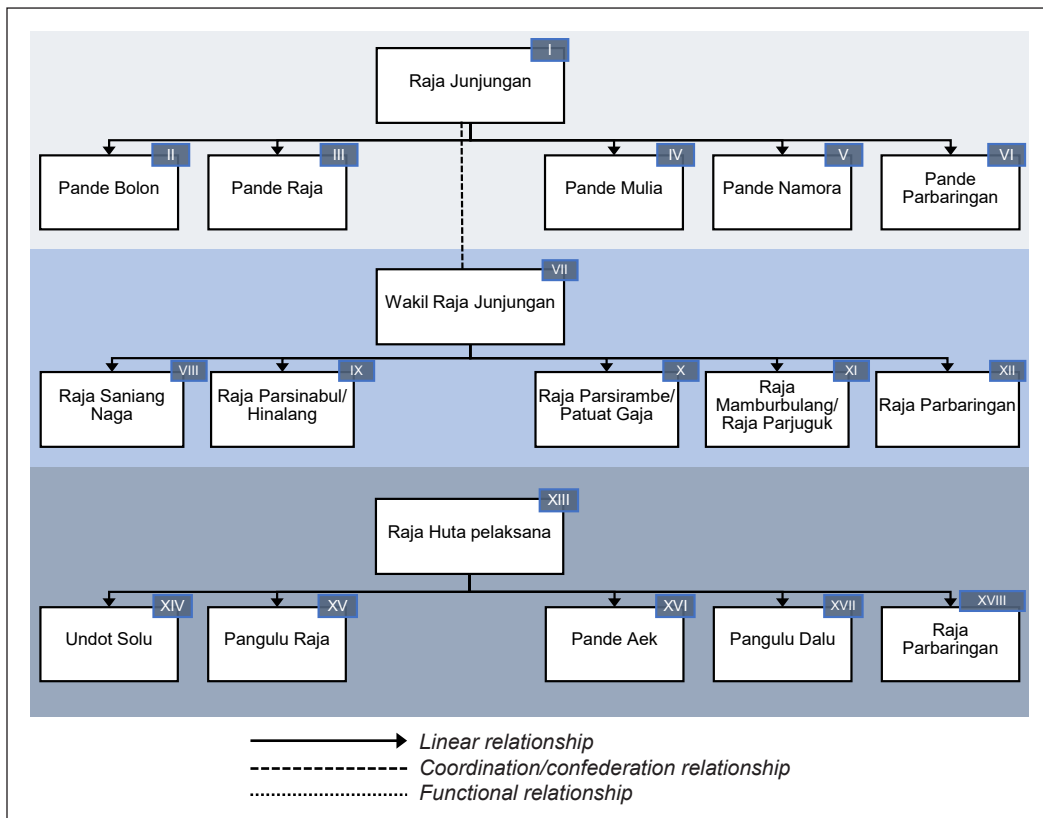


Figure 2. Bureaucratic Organisational Structure of Haranjaon Dinasti (Source: Silalahi, 2014)

Terminologies: I. Head of Bius; II. *Raja Junjungan* aide who manages customary functions at the *bius* level; III. *Raja Junjungan* aide who manages religious functions at the *bius* level; IV. *Raja Junjungan* aide who manages economic functions at the *bius* level; V. *Raja Junjungan* aide who manages financial functions at the *bius* level; VI. *Raja Junjungan* aide who manages religious functions at the *bius* level; VII. Deputy to *Raja Junjungan* at the *horja* level; VIII. Deputy to *Pande Bolon* at the *horja* level; IX. Deputy to *Pande Raja* at the *horja* level. Also known as *Hinalang*; X. Deputy to *Pande Mulia* at the *horja* level. Also known as *Patuatgaja*; XI. Deputy to *Pande Namora* at the *horja* level. Also known as *Raja Parjuguk*; XII. Deputy to *Pande Parbaringin* at the *horja* and *huta* levels; XIII. Head of *huta* or village head. Government executor at the *huta* level; XIV. King of the Sea, the deputy to *Raja Saniang Naga* at the *huta* level; XV. War expert or general at the *huta* level; XVI. Irritation/water Expert at the *huta* level; XVII. Animal husbandry expert at the *huta* level; XVIII. Deputy to *Pande Parbaringin* at the *horja* and *huta* levels

for the first time, Clan A, Clan B, and Clan C. Each of them should be given an equal opportunity to be the village head, beginning from the oldest clan. The oldest clan is usually identical to the oldest son. Viewed from history, the clan is the same as its older name. If there is more than one

candidate from Clan A, for example, an *adat* ceremony, which is called *manjomput nani surat* (drawing written ballots) from the ballot boxes, will be held. Three ballots have been prepared in them. One of the ballots is written *Aku Calon Kepala Desa* (I am the Village Head Candidate), while

Table 1
Development of regulations on the position of villages in Indonesia

Laws	Position of a Village	Explanation
Law No. 1/1945	A village has the right to organize its own domestic affairs (autonomy)	It was carried out only until the district and municipality
Law No. 22/1948	A village was categorized as a Level III Government	It did not work due to the RIS constitution and UUDS 1950
Law No. 1/1957	It was possible to establish autonomic region Level III despite no confirmation.	It did not work effectively due to Presidential Decree 1959
Law No. 19/1965	As <i>desa praja</i> , is not considered a Regional Government	It was postponed due to political reasons
Law No. 5/1979	Subordinate district government	Tendency to authoritative centralisation
Law No. 22/1999	Combination of the principles of self-governing community, local self-government, and local state government	The position of the village was blurred, and the principle of decentralisation was heeded
Law No. 32/2004	Combination of the principles of self-governing community, local self-government, and local state government	The position of the village was blurred. Tendency to shift the management to centralisation
Law No. 6/2014	Combination of the principles of self-governing community, local self-government, and local state government	Recognition of the existence of <i>adat</i> village. Village capacity and authority were strengthened.

Source: Irawan, 2017

Table 2
Traditional knowledge in community life

Names of TK	Organise the Sector of Life	Main Philosophy and Values	Calendar of Execution
<i>Si soli-soli (Wheel of Fortune)</i>	Adat village head election system	Redistribution of Power among village founding clans	In pre-Independence it was not periodical, in post-independence it was periodical, following calendar in the post-general election
<i>Sakke Hudali (hang up the hoe)</i>	Agricultural and Environmental Conservation	Honor to nature or moral ecology and developing solidarity and values of egalitarianism	At the time of rice planting season
<i>Lubuk Larangan (Traditional no-fishing zone)</i>	Environmental Conservation and water resources, including fishery	Appreciation to nature or moral ecology and developing solidarity and egalitarianism values	At the time of fish harvesting season

the other two ballots are blank. When one of the candidates *manjomput* (takes) the ballot written *Aku Calon Kepala Desa*, he will be the valid person who has agreed to represent his clan group. However, direct general elections for village heads as the government regulates them are also held and carried out. Of course, the candidate for village head that the adat law has elected will be the winner.

The philosophy of *si soli-soli* guarantees the fair redistribution of power among the clans of the founders of villages; it is like a rotating wheel. Another value of good deeds in this *adat* system is that the power of a village head is the moral obligation of the clan group; it is not the personal responsibility of the village head. When he commits a bad deed, for example, he will automatically make his clan ashamed. Power is the dignity of the clan, not merely the dignity of an individual. However, the *adat* system has been shaken, especially in villages close to big towns such as Tarutung (the capital of Tapanuli Utara Regency), since there have been many migrants, such as government employees and merchants who come to this town from various regencies. The influx of migrants has made the legitimacy and the quantity of the clans as the founders of villages decrease. Besides that, at a certain time, there is a conflict since the new-comers object to the *si soli-soli* system and force villagers to do the general election system for village heads by saying that every individual has an equal right to elect and to be elected.

TK *Sakke Hudali* (Hang Up the Hoe)

Sakke Hudali is a hoe that has been hung. It means that the rice plants have been planted in the wet rice fields so that there will be no hoe to be used. The practice of *Sakke Hudali* has been done for more than 500 years; it was long before Christianity and Islam came into Pantis village, Pahae Sub-district, Tapanuli Utara Regency. The *data* tradition is the realisation of thanking

God and praying *asa gabe na ni ula* (the rice plants that have been planted will become fertile). *Sakke Hudali* is an opportunity for the villagers to do specific pray for having toiled rice plants. This ritual is also expected to develop social capital among the farmers. By the time the ritual of *Sakke Hudali* is carried out, the same food is served in their kitchens; it is the buffalo meat, and they take rest together. By sunset, the villagers are prohibited from doing farm work. They have to take a rest at home; no one will be allowed to go to the farms even though they only take cassava leaves. All outside activities have to be done the next morning. The gratitude is given to God the Almighty because the rice plants have been planted safely. Religious and *adat* leaders pray: *Asa gabe na niula, dipadao sian bala* together in the hope that the rice plants which have been planted will be successful and there will be no pests (A. Harahap, 2022).

TK *Lubuk Larangan* (Traditional No-fishing Zone)

TK about *Lubuk Larangan* is a tradition that organises the relationship between human beings and human beings and between human beings and nature. In this tradition, the people are not allowed to go fishing (it is known as *ihan* in Bataknese) by the river without permission from the community. They let goldfish live naturally in the river, which is surrounded by tall and shady trees, and the water comes from warm water sources. When the time to catch fish comes, all of the people around the village catch fish together by decreasing the depth of the

river water where the colony of fish flocks together so that the people will block them upstream with stones and sand. Outside the season of catching fish, the villagers are prohibited from catching fish, cutting off trees surrounding the river, and making it dirty. The fish they have caught will be cooked and eaten together by the villagers by the river.

The three TKs above only partially organize the life of the community. *Si soli-soli* organises the election for village heads, *sakke hudali* organises the harmonious relationship between human beings and environment and, at the same time, develops villagers’ social cohesion, and *lubuk larangan* organises harmonious relationship between human beings and environment and, at the same time, develops villagers’ social cohesion. In many things, TK organises the life of villagers partially and does not contribute in supporting Village Development Index. This statement is strengthened by the statements of the informants from the *custom* Institution who are interviewed in in-depth interviews as follows:

“.... TK only organises daily social life such as funerals, weddings, moving skeletons to family mausoleum, which

in local language is known as *tugu* or *tombak*“

Table 3 presents the matrix of key informants’ responses concerning the role of traditional knowledge (TK) in rural development in general and in enhancing the Village Development Index (IDM) in particular.

TK does not make a significant contribution to encouraging IDM because of the Alokasi Dana Desa or ADD (Village Fund Allocation) and *Dana Desa* or DD (Village Fund) in the post-implementation of Law No. 6/2014 on Village Administration in Tapanuli Utara Regency. Until 2021, the Village Development Index in this Regency always underdeveloped village index. The result of the research shows that TK since 2018-2021 does not concretely increase Village Development Index in Tapanuli Utara Regency because its index always underdeveloped with a score of 0.5904, as stated in Figure 3.

TK deadlock has encouraged development; it is caused by three factors (Briggs, 2013): first, TK in the field of environment (such as *traditional no-fishing zone* or *lubuk larangan*) plays its role in environment conservation, but it cannot be

Table 3
Traditional knowledge in rural development

Key Informants	Brief Answers
Management of LADN (<i>Dalihan na Tolu Adat</i> or the three-legged stove institution)	TK remains an accessories in life; it only exists in official ceremonies in welcoming guests from the central government. The accessories are seen from <i>umpasa-umpasa</i> (<i>proverbs</i>) and traditional customs. TK remains an identity shown to foreigners and the community. TK only organises <i>adat</i> funerals, wedding ceremonies, and <i>mangokkal holi</i> (The Batak ancestral bone-reburial ceremony) of family members to family mausoleum (<i>tugu</i>). TK does not directly contribute to rural development.

Table 3 (continue)

Key Informants	Brief Answers
District Officials	TK is only a government approach to the people. When the District officials visit the village, we open the ceremony with a greeting, “Horas” (Good Wishes). If it is necessary, we do <i>partuturon</i> (kinship system) with the clan of the village founder. The contribution of TK does not have any direct relationship but only a part of it. Rural development is more determined by the leadership of village heads and the village budget. With the condition of the district budget today, in which most of it is allocated for salary and operations, a village head will have difficulty doing development. Regional Generated Revenue is relatively small, so it is not easy to make a development plan with the wide area of Tapanuli Utara Regency.
LSM (Non-government organisations) and Religious Leaders	TK has been defeated by modernization; it is seen from the green revolution program, which has been introduced since the new Order regime. The Green Revolution made high productive costs and depended on the products of capitalists, which caused farmers to be poorer, and this made rural development a constraint. This Green Revolution also causes environmental damage and biodiversity, crickets, grasshoppers, and fireflies are seldom found in villages.
Village and District Facilitators	TK does not directly contribute to rural development and IDM because rural development needs village heads’ skills in rural development plans. Village financial statements and rural development monitoring and evaluation mostly use information technology.
Village-owned Enterprise (Bumdes) Director	Almost no TK directly contributes to rural development. Even at a certain level, TK such as <i>Dalihan na Tolu</i> (the three-legged stove consists of <i>hula-hula</i> , <i>dongan sabutuha</i> , and <i>boru</i>) impedes rural development because the defeated village head candidate will give orders to his close relatives not to shop on the Bumdes store.

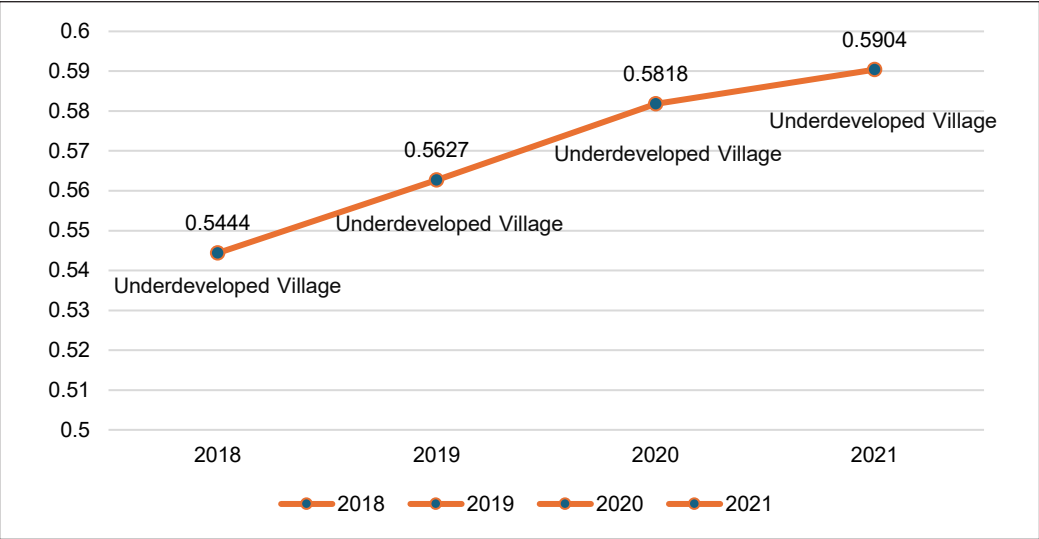


Figure 3. Village development index of North Tapanuli Regency 2018-2021
Note: Village Development Index consists of 5 (five) scale: 1) **Very Underdeveloped Village** (< 0.491); 2) **Underdeveloped Village** (> 0.491 and < 0.599); 3) **Developing village** (> 0.599 and < 0.707); 4) **Intermediate Village** (> 0.707 and < 0.815); and 5) **Self-Reliant Village** (> 0.815)

used as the poverty extrication approach effectively and in a short time. In other words, TK only plays its role in managing some sectors (segmented and partial) of life such as in environment and forest conservation (Datta & Starlight, 2024; Indrawardana, 2013; Ismail et al., 2018; Jiao et al., 2024; Senoaji, 2004; Taylor et al., 2024), in managing farmland by working together (Klopotek et al., 2023), in medical/herbal medication or medical plant (Gumisiriza et al., 2023; Ismail, Lubis, et al., 2019; Ismail, Manurung, et al., 2019; Manurung et al., 2017; Van Damme et al., 2024), in managing giving birth in women (Alqathama et al., 2023; Dlamini et al., 2023), and in managing tourism and tourists (Manurung et al., 2020; Revida et al., 2022). Another complexity is whether TK can be replicated in other areas and whether the idea, concept, and thought of TK can be used in other areas. Secondly, to handle these weaknesses, development practitioners attempt to integrate TK with hybrid knowledge. However, hybridisation also faces problems such as the involvement of the local people and how the correlation of power between the local people and the Western scientists. Thirdly, the Western domination caused by Western conquering sciences on TK has made the meaning of “local” lose its essence. It has been forced to be used in the general sense and can be universally utilised like Western knowledge. In the extreme, it can be modified to meet the needs of capitalism and liberalism. The commercialism of knowledge and inheritance of the indigenous/local people

by Western intellectuals is considered “an insult to sacred things” (Greene, 2004) and unscrupulous ways on behalf of the strategy and mitigation of the poverty of local or indigenous people (Ertman & Williams, 2005).

This study strengthens the previous result of a study which concludes that even though culture is considered to have a contribution to economic development, there is no concrete culture that possesses a causality relation between culture and economic growth, so its visibility should be continuously increased in societies (Titko et al., 2023). The role of culture in development is still a mystery in the black box, especially the role of cultural heritage, which seems to have an effect that still has not been identified (Tubadji & Pelzel, 2015). (The inconsistencies of the role of culture in encouraging development are caused by some factors as follows: 1) even though almost all writers explain cultural indicators, the indicator which has been made is not seriously supported by a strong theoretical foundation, 2) most of the writers talk about the relationship between culture and development, but cultural indicator which directly contributes to development, which is usually called as a cultural turn undergoes errors. In other words, every person who still believes and justifies that all cultures which are thick descriptions are still used as value, orientation, and attitude of every individual in a society. All cultural elements are still considered the foundation of people’s lives even though, in many ways, a certain culture is not practiced by people

anymore in social life. It remains a cultural heritage (CH) because it has been defeated by other cultures which are considered more compatible with the people's economic production method.

Meanwhile, some other cultural elements still survive and are used as values, orientation, and attitudes in behaving; they are called cultural living (CL), as explained by (Tufts, 2003). Two things cause this reality: 1) the meaning of the culture is clear for everyone, and 2) the impact of culture on economic growth is not clear enough because study and cultural framework are not integrated, which will eventually cause inconsistent empirical evidence. The ups and downs of TK in encouraging development occur because the universal model of knowledge and the scientific rationalism of Western intellectual agents in the development practices have removed native communities (Jakes, 2024; Shivani et al., 2022). It seems that TK has undergone ups and downs because of the factors of colonisation and the existence of the Heavenly religions (the three revealed religions: Islam, Christianity, and Judaism). Opposing Western modernisation and development is expressed by ethnic groups by reconstructing the glorification of traditional identity in the past, not merely the recognition from the state for the indigenous people in the post-reformation era. They only use the strategy of self-identification to confirm the difference in their group position from the other groups (Suyadnya, 2019).

The power relationship between modernisation and traditional knowledge

is a battle of cultures and civilisations that has colored human civilisation for a long time. Syncretism, mixing, hybridisation, connectivism, and cross-bonding between two or more cultures and civilisations are inevitable realities and cultural processes (Simanihuruk et al., 2023; Winarto, 2014). At a more macro level, this is what Huntington calls the clash of civilisations (Huntington, 2011) which then ultimately ends in the end of history (Fukuyama, 1992). The same thing happened between the culture of modernisation and traditional knowledge in North Tapanuli Regency, which ultimately weakened traditional knowledge. Traditional knowledge in many cases is no longer the main spirit to encourage development. Traditional knowledge only regulates daily life such as marriage and death. The existence and resilience of culture in many ways is determined by whether the culture can still become aspirations, values that influence the attitudes and behaviour of humans.

This study reinforces the results of previous studies that conclude that while culture is seen as contributing to economic development, there is no concrete culture that has a causal relationship between culture and economic growth (Ortega-Villa & Ley-Garcia, 2018). The role of culture in development is still a mystery in a black box (Tubadji & Pelzel, 2015). The inconsistency in the role of culture in promoting development is motivated by the following factors. First, although all authors explain cultural indicators, the indicators are not supported by a strong

theoretical foundation. Second, most authors discuss the relationship between culture and development, but the cultural indicators that contribute directly to development are not very clear (Ortega-Villa & Ley-Garcia, 2018).

CONCLUSION

Briefly, it can be concluded that either modern values or TK has not become a village head's ethos and culture which are expected to be able to increase village IDM in Tapanuli Utara Regency. Rural development, in many things, is merely a pseudo-development or bubble development. Besides that, it can also be concluded that *huta* (village) which used to be considered having local wisdom in managing its self-governing capacity as it has been described above, is not found anymore. Most of the TK is only used to manage daily traditions such as traditional wedding ceremonies, funerals, and removing ancestors' bones. Today, TK is only a heritage and past remembrance, whereas the spirit, which becomes the core of knowledge in it, does not have meaning anymore.

Nevertheless, the synchronisation of TK and Western worldview can still be bridged with various efforts as they are made by Datta and Starlight (2024) using de-colonial conversation methods such as connecting the knowledge system of the traditional people from generation to generation. It is often disturbed by the history of injustice and cultural assimilation. Besides that, recognising and appreciating people's knowledge, empowering traditional people, and strengthening cultural diversity

are very important for social cohesion and security (Cuerrier et al., 2015). Bringing together traditional communities, scientists, and policymakers collaboratively is expected to be able to solve various problems found in multiple indigenous people (Kulundu et al., 2020) and bridging the knowledge of indigenous people and Western expertise can work together toward sustainable development and conservation by considering scientific data and the perspectives of indigenous people.

Therefore, it can be concluded that development practitioners and policymakers must eschew monolithic thinking in the design of development initiatives. Such rigid thinking, which regards traditional knowledge as a mere lever for advancement amidst the inherent weaknesses and challenges posed by the current trajectory of modernisation that Indonesia is pursuing, is fundamentally flawed. The notion of modernisation, often heralded as a universal remedy for poverty, and the subsequent nostalgia for traditional knowledge—once the cornerstone of rural development—constitute a form of romanticism, if not outright escapism. Development practitioners ought to adopt a dialectical, hybrid, connective, and syncretism approach, adeptly amalgamating values that are not only compatible but also substantively conducive to fostering economic growth.

Implications of the Study

Several factors cause the lagging IDM of North Tapanuli Regency. First, in many

cases, modernisation values have not been internalised and have not become the orientation and behaviour attitudes of village heads and villagers in general. Rural values intertwined in kinship politics and farmers' economic morals are still the central values in village life. These values are, to some extent, incompatible with the values of modernisation itself. Secondly, in many cases, TK is no longer a value, orientation, and attitude in village governance as it used to be, as explained by several experts previously. In many cases, TK is only left to regulate the affairs of daily social life in rural areas, such as traditional events of death, marriage, and the transfer of bones to the family tomb, better known as *tugu* (family mausoleum). Still practiced is the customary system for electing village heads, known as the "*si soli-soli*" tradition. This system is still practiced in several villages and is sometimes contested by customary leaders in the village itself. Although the village head election system is still in place in some villages, the government of North Tapanuli District has not issued regulations on the recognition of customary villages, except for the recognition of customary land rights. In contrast, the province of Bali changed the name of Adat villages to Pekraman Villages based on Bali Provincial Regulation No. 3/2001. This regulation was instrumental in expanding the structure and authority of customary villages in Bali (I Nyoman Surpa Adisastra & Bagus Ade Tegar Prabawa, 2024). As a result, indigenous villages in Bali are more autonomous, and the leadership of indigenous village heads is

more functional. Likewise, the Ammatoa Kajang indigenous community village in Bulukumba Regency, South Sulawesi Province, introduced ethno-development. In this Indigenous village, TK or local wisdom has improved village development (Rosyanafi et al., 2023).

Theoretical Implication

Theoretically, the implications of this study demonstrate and reinforce the results of previous studies that conclude that although culture is seen as contributing to economic development, no concrete culture that has a causal relationship between culture and economic growth has been found (Chan, 2024; El Hussein et al., 2024; Mažeikaitė, 2024). The role of culture in development is still a black-box mystery (Tubadji & Pelzel, 2015). The Pandora's black box that culture contributes significantly and concretely to development is yet to be seen in alleviating IDM backwardness in the North Tapanuli Regency (S. Harahap & Alfikri, 2023). Interaction and communication between global culture and local culture must be procedural (Kryvobok et al., 2023) and interconnected (Kleden, 2024), crisscrossing and intertwining, ultimately resulting in a hybrid culture. In many cases, over a while, certain cultures are no longer practiced by individuals or communities in social life and (only) remain as cultural heritage (CH) because they are conquered by other cultures that are seen as more compatible with the way of economic production in the community order. Meanwhile, some other cultural elements survive and are still

used as values, orientations, and attitudes in behaviour, referred to as cultural living (CL). Other implications of this study indicate the need for a hybrid culture, which selects and utilises cultural elements that have been traditionally retained to be combined, selected, and adapted to contemporary methods.

Practical Implication

Practically, development practitioners and policymakers urgently and importantly consider hybrid thinking and connectivism in integrating cultural values in development in general and village development in particular. In other words, traditional knowledge values such as “*si soli-soli*” in the election of village heads in several villages in North Tapanuli Regency must be maintained. For this customary law system for village head elections to be sustainable, it needs to be legitimised through district or regent regulations to be binding. Likewise, the traditional knowledge of “*sakke hudali*” and “*lubuk larangan*” needs to be maintained and even strengthened to maintain the environment amid climate change that is threatening in front of our eyes now. Because culture is a thick description, development practitioners must choose layers of culture (whether from modernisation values or traditional knowledge) that can become the driving spirit of development. Because we live in a globalised world at one time, we also come from and grow from local culture or traditional knowledge at another time. As far as humans cross the global culture,

they will return to their local cultural roots, back to the “house of Mumbi” (Nyumba ya Mumbi), a metaphor put forward by Isaacs when explaining the Kikuyu tribe in Kenya. Isaacs emphasises that ethnic identity is not just a social construction but has a deep emotional and psychological dimension for every entity (Isaacs, 1989). In other words, village heads must think synthetically and hybrid in adopting cultural values that can encourage development amidst the current allocation of village funds transferred from the central government.

Limitations and Recommendations for Future Research

Village development is an effort to improve the quality of life and living for the most excellent welfare of the village community and to reduce poverty through the fulfillment of basic needs, development of village facilities and infrastructure, development of local economic potential, sustainable utilisation of natural resources, and the environment. The implementation of village development is regulated in Law No. 6/2014 on Village Governance, which is carried out systematically, consistently, and sustainably with facilitation, supervision, and assistance. Based on this law, the Village Head has a great responsibility as the organiser of government affairs, the community, and the implementation of village development. However, in practice, it is not easy to diagnose which role is more prominent: the village head as head of government affairs or the head of customs in various community activities, by the same

person. It is a complex and challenging task for researchers to identify these roles. Future research should focus on either modern village governance based on the law or establishing village governance based on the long-standing TK practiced by the community.

Therefore, to avoid questions about the above TK related to village governance, several research recommendations should be made such as first, the North Tapanuli government needs to initiate regulations, either in the form of local government regulations or regent regulations on village head elections, especially in villages that still implement the “*si soli-soli*” customary system/law. This regulation is essential as a legacy for village officials and election organisers to avoid ambiguity in conducting village head elections. Second, a more in-depth study is needed to explore why fiscal decentralisation at the village level has not been able to increase the IDM in North Tapanuli regency. Thirdly, it is necessary to rediscover what values can become *Élan vital* and *raison d’être* of development drivers so that fiscal decentralisation at the village level contributes significantly to village development. Thus, budgetary decentralisation does not only become a “bubble jet” or “pseudo” development. Fourth, further research is needed on the political and cultural relations between the village government and the supra-state above because even though the village government is autonomous, it does not necessarily escape the grip of the shadow.

The limitations of this research are related to the generalisation of the research conclusions, which only relied on in-depth interviews with seven key informants. The conclusions drawn from this study only apply to the research locus and do not necessarily describe other districts and villages in Indonesia. Future research that might be more interesting would look at the leadership of village leaders in Tapanuli regency in planning, implementing and monitoring the use of the large amount of village funds. This is important because in the midst of radical changes in fiscal decentralisation, village heads are managed by village heads whose education is mostly only at the senior high school level and who are relatively old (over 40 years old). In short, radical decentralisation but managed by old human resources (New Wine into Old Wine skins).

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Design of the CABAMath Application based on Fuzzy Delphi Method: Enhancing Mathematical Skills among Students with Autism Spectrum Disorder

Afsaneh Famildardashti¹, Dorothy DeWitt^{2*}, and Madhyazhagan Ganesan¹

¹Department of Educational Psychology and Counselling, Faculty of Education, University Malaya, 50603 Kuala Lumpur, Malaysia

²Department of Curriculum and Instructional Technology, Faculty of Education, University Malaya, 50603 Kuala Lumpur, Malaysia

ABSTRACT

Individuals with autism spectrum disorder (ASD) can enhance their educational experiences with mobile applications. Furthermore, previous studies indicate that utilising creative art has a positive impact on Autism spectrum disorder students' (ASDs) educational performance as well as behaviour and attention. This study aimed to design a creative arts-based mobile application (CABAMath) to improve mathematical skills for ASDs with level 1 severity based on DSM-IV. By utilising the Fuzzy Delphi Method (FDM), the study seeks to determine consensus among experts on appropriate elements for CABAMath's design. Key findings include consensus on the CABAMath app's objectives and content, including numerical abilities and understanding shapes and sizes. The instructional strategies for the app include simple games and reinforcement, as well as features for customizable skills and progress reports. The CABAMath approach based on creative arts include colouring, drawing, and painting. Future research may explore the implementation and evaluation of CABAMath to determine its usability and effectiveness.

Keywords: Autism spectrum disorder, creative art, educational technology, Fuzzy Delphi method, mobile applications

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E-mail addresses:

pva170055@siswa.um.edu.my (Afsaneh Famildardashti)

dorothy@um.edu.my (Dorothy DeWitt)

madhya@um.edu.my (Madhyazhagan Ganesan)

* Corresponding author

INTRODUCTION

Autism, a neurodevelopmental disorder with symptoms that occur across a spectrum, has a global prevalence rate of 0.72%, representing approximately 79 million individuals worldwide (Talentseva et al., 2023). Access to high-quality education is critical to enhance the life experience

for ASD individuals (Asahar et al., 2021). However, developing independent living skills encompasses proficiency in practical academic skills such as mathematics (World Health Organisation, 2023). Nevertheless, over 25% of students diagnosed with ASD experience notable difficulties with the abstract concepts in mathematics (Siregar et al., 2020). Additionally, ASD students exhibit characteristic difficulties, which vary across a spectrum, such as short attention span and limited cognitive capacity (Pekleri, 2019). For the effective teaching of academic skills to individuals with ASD, instructional approaches need to be tailored to their needs (Tan & Kastberg, 2017). This is to organise students' thought processes, thereby enhancing their cognitive development (Siregar et al., 2020).

Research indicates that ASD children tend to prefer technology-based learning methods over traditional approaches (Tashnim et al., 2017). Hence, by developing user-friendly mobile applications with pedagogical purposes for ASD individuals, there is the potential to enhance their mathematical skills (Munoz et al., 2018). Further, the literature suggests that the creative arts can develop ASD individuals across multiple intelligences (Maykel & Kaufman, 2022). Despite this, creative art for educational purposes has received limited attention in the literature. While numerous studies have explored the development of mobile applications with a variety of strategies in mathematics for individuals with ASD (Hassan, 2020), there is little research on creative arts.

Hence, it is critical to determine whether a creative arts-based application could be designed for teaching mathematical skills to ASD students. The potential of creative art integrated in mobile applications for mathematics education needs to be considered. The lack of utilisation of creative arts in mathematical learning applications represents a notable gap in the existing literature, warranting further investigation and exploration. Hence, this study aims to gather experts' consensus to identify the appropriate elements of a creative arts-based application (CABAMath), to enhance mathematical skills among ASD students who exhibit level one severity according to the DSM-IV criteria.

LITERATURE REVIEW

Mathematics Applications for ASD Children

Previous studies have predominantly focussed on developing mathematical applications for ASD children, covering foundational numerical skills such as numbers below 100, addition, and subtraction (Che Ku Mohd et al., 2020; Tashnim et al., 2017), with limited attention to multiplication, division (Che Ku Mohd et al., 2020) and calculation with money (Ntalindwa et al., 2021). Moreover, a few studies have addressed basic topics such as size, shapes, and colours (Winoto et al., 2018).

The strategies employed in previous studies predominantly involve interactive games (Che Ku Mohd et al., 2020;

Winoto et al., 2018), supplemented by visual images (Karanfiller et al., 2018), quizzes (Sweidan et al., 2022), dotted lines (Tashnim et al., 2017), and semi-concrete visual drawings (Kahveci et al., 2023). However, some studies have highlighted the lack of comprehensive instructional approaches that effectively engage and motivate individuals with ASD (Fernández-Batanero et al., 2024).

Creative Arts for Learning among ASD Students

Creative arts utilised alongside various learning activities have shown promise for ASD individuals (Bawazir & Jones, 2017; Famildardashti et al., 2024). Art activities help develop problem-solving strategies, fosters creative thinking in a secure environment, promotes focussed engagement (Lowe, 2016), and enhances ASD individuals' understanding and perception abilities (Allahverdiyev et al., 2017).

Art integration is recognised for its role in facilitating the effective transfer of knowledge and skills across various domains, encouraging students to make connections between different disciplines (Hardiman et al., 2019). Engaging students with art promotes their confidence, enjoyment, motivation and engagement in learning and participation in classroom activities, fostering connections and understanding of curriculum content (Papachrysanthaki, 2022; Saunders, 2021). Furthermore, art integration enables visual representations that empower ASD students

to take a more active role in their education (Papachrysanthaki, 2022). According to Bin et al. (2023), visual arts integration has emerged as a promising approach to enhancing engagement and academic outcomes for students with special needs.

Existing research has explored the effects of art integration in various subjects, such as science (Hardiman et al., 2019), social-emotional skills (Anderson & Valero, 2020), ASD students' academic achievement (Navei et al., 2022), language development (Spence, 2014), STEM (Butera et al., 2016) and geometry (Bin et al., 2023). However, art integration in teaching mathematics to ASD students has received little attention.

Theoretical Framework

There are two theories that are related to the current study. 1) Piaget's Theory of Cognitive Development ; and 2) Mayer's Cognitive Theory of Multimedia Learning (CTML).

Jean Piaget's theory of cognitive development delineates stages of intellectual maturation in children. This theory underscores the significance of play, exploration, and hands-on experiences as fundamental components of learning (Pakpahan & Saragih, 2022). According to Piaget's theory, students require a curriculum that supports their cognitive development by helping them acquire concepts and progress logically (Lefa, 2014). Therefore, CABAMath needs to accommodate differences in thinking quality. Piaget emphasises the importance of active learner engagement in the learning process. By incorporating a creative art

approach into CABAMath, learners take an active role in tasks.

Piaget's theory acknowledges individual variations in cognitive development (Lefa, 2014), and hence, the CABAMath application organises one-to-one activities. By understanding ASD students' cognitive levels, teachers should adjust their teaching methods accordingly.

Mayer's Cognitive Theory of Multimedia Learning (CTML) holds particular significance in the field of education, focussing on problem-solving and the creation of educational multimedia. According to this theory, the concurrent presentation of visual and verbal information maximises learning effectiveness (Mayer & Moreno, 2003). CTML emphasises the importance of designing multimedia materials that align with cognitive processes to optimise learning outcomes (Mayer, 2005). Learning occurs through the internal processing and transformation of data into long-term memory, often facilitated by experiential learning. Applying Mayer's theory to the development of CABAMath's user interface and content is geared towards optimising the mathematical learning outcomes of ASD students.

To facilitate students' construction of mental images and improve cognitive and long-term memory, CABAMath will incorporate creative art, including drawing and painting, into its design. This approach aligns with cognitive learning principles, which emphasise the importance of engaging learners through visual and experiential means.

METHODS

Research Design

The study employed the Fuzzy Delphi Method (FDM), which is an objective and time-efficient approach to securing consensus (Murray et al., 1985). FDM uses expert consensus to identify the most suitable elements for the design of CABAMath, addresses uncertainties using linguistic variables (Abdullah & Yusof, 2018), and has been used to garner consensus in generating ideas for designing innovative curricula, modules and solutions (Awang et al., 2016). There are two rounds in the FDM. The first round entailed semi-structured interviews with six experts to identify potential elements of CABAMath related to the mathematical content within the application, the instructional strategies, the technical features, and the user interface considerations. In the second round, the experts were asked to rank their agreement with the sub-elements of CABAMath. The expert consensus on the primary constructs required within the application was determined.

Round 1 of the FDM

Semi-structured interviews were conducted with each of the six experts to gather their opinions on potential elements for CABAMath related to the mathematical content. The experts were asked about the instructional strategies, the technical features, and the user interface considerations in the application. The data from the semi-structured interview were transcribed and analysed thematically. The themes

that emerged were structured according to the main elements in the following domains: objectives, mathematical content, instructional strategy, user interface, and features and options. Specifically, six sub-elements were identified for the learning objectives of the CABAMath, while there were twenty-one sub-elements for content. There were eleven sub-elements for instructional strategy, which would outline the suggested curriculum for CABAMath. Similarly, the user interface, features, and options sections each contained eleven and nine sub-elements, respectively.

Experts underscored the importance of incorporating creative art forms such as drawing, painting, and colouring within the application. As expressed by one expert, “This app has to be visual (and) can be helpful for any ASD child. They are concrete learners, and drawing gives them stimulation” (Expert 1). Another expert emphasised the value of art, stating, “Definitely use art, using colours, drawing and painting “ (Expert 2). Similarly, another expert highlighted, “They (ASD students) love art very much, use drawing, painting , and colouring”” (Expert 3).

Based on expert insights, the study recognised limitations in using various art forms in a mobile application, opting for digital painting in CABAMath. Aligned with CTML colouring, which emphasises multimedia education, CABAMath incorporates familiar or student-created images for colouring. The structure focusses on drawing, painting, and colouring activities. Music and narration were also

considered and included in the FDM instrument to determine expert consensus.

Round 2 of the FDM

This inclusive approach aimed to enrich the process of issue identification, a crucial aspect achievable through the application of FDM (Glumac et al., 2011). In this study, experts were carefully diversified to ensure comprehensive coverage of relevant domains. In the second round of the FDM, 19 experts agreed to provide responses to the instrument. The profile of the experts is shown in Table 1.

Table 1
Profile of experts

Area of expertise	Sex	Position	Experience (years)
Special Needs Education	F	Practitioner	18
	F	Academic	21
	F	Academic	14
	F	Academic	7
	F	Academic	15
Creative Art	F	Academic	+20
	F	Practitioner	17
	F	Academic	15
	F	Academic	13
Information technology (IT) with experience in development of mobile applications	M	Academic	21
	F	Academic	+20
	F	Academic	12
	F	Academic	+20
	F	Academic	13
	M	Academic	+20
	M	Trainer	18
	M	Trainer	15
	F	Trainer	12
	F	Trainer	+20

Source: Famildardashti (2025)

Data Collection and Analysis

The transcripts of the semi-structured interviews of the first round were analysed to identify the key elements and sub-elements, which were subsequently used to form the items in the FDM instrument. The instrument employed a 5-point Likert scale. The FDM instrument was distributed to the panel of 19 experts who had consented to participate in the study. Data from the experts were converted using the linguistic scale shown in Table 2. A systematic analysis was conducted using the FDM formula to determine the level of expert consensus and prioritise the elements to be integrated into the CABAMath, and was computed in Microsoft Excel software, as recommended by Jamil and Noh (2020).

The FDM analysis involved the use of triangular fuzzy numbers and the defuzzification process. The process of the FDM analysis consisted of six steps:

Step 1: Determining the linguistic Likert scale with fuzzy numbers (Saido et al., 2018). To accommodate the inherent fuzziness among experts' responses, each response is assigned three fuzzy values, forming a triangular fuzzy number. Within this structure, m_1 represents the minimum

value, m_2 denotes the median value, and m_3 signifies the maximum value. These values, m_1 , m_2 , and m_3 , exist as fuzzy numbers within the range of 0 to 1. Consequently, for every response on the Likert scale, three values are assigned, allowing for a nuanced understanding of expert opinions.

In step 2, The computation of the average fuzzy number entails determining the average responses for each fuzzy number (Abdullah & Yusof, 2018). Step 3 involves identifying the threshold value 'd', which plays a crucial role in determining the consensus level among experts. This was calculated using the following formula:

$$d(\bar{M}, \bar{m}) = \sqrt{\frac{1}{3}(M1 - m_1)^2 + (M2 - m_2)^2 + (M3 - m_3)^2}$$

The acceptance of an element in the triangular fuzzy number stage is determined by two conditions: Firstly, the percentage of expert consensus for an element must be equal to or more than 75.0%, and secondly, the threshold value (d), for each component and/or element must be less than or equal to 0.2.

Step 4 involves identifying the alpha-cut level, which is commonly set at 0.5

Table 2
Linguistic scale

Level of Agreement	Likert Scale		Fuzzy Scale	
Strongly Agree	5	0.6	0.8	1
Agree	4	0.4	0.6	0.8
Neutral	3	0.2	0.4	0.6
Disagree	2	0.1	0.2	0.4
Strongly Disagree	1	0	0.1	0.2

Source: Famildardashti (2025)

due to the range of the fuzzy number being between 0 and 1. Elements with values above 0.5 are accepted, while those below 0.5 are rejected (Saido et al., 2018).

Step 5 involves the defuzzification process. The term “defuzzification process” refers to the method used to rank each construct, component, element, problem, variable, and sub-variable identified in the study. This process aids researchers in determining the importance and ranking of each component under consideration. It involves determining the fuzzy score value (A) based on the alpha-cut value of 0.5 (Rahman et al., 2021). If A is equal to or greater than 0.5, the measured elements are accepted; if it is less than 0.5, the measured elements are rejected.

The defuzzification value (DV) for each element used the following formula to calculate and determine the ranking:

$$DV = \frac{1}{3} \times (m1 + m2 + m3)$$

Step 6 involves ranking the phases and sub-phases (elements) of the model. This ranking is crucial for prioritising the elements based on their defuzzification values (DV) in the model for implementing instruction in the science class. The element with the highest DV is assigned the highest priority, following the principles outlined by Fortemps and Roubens (1996).

RESULTS AND DISCUSSION

In this study, FDM was employed not only to select the elements of the CABAMath application but also to ascertain the

importance of each element by ranking them.

Objectives of CABAMath

For the objectives of the CABAMath application, only three of the six sub-elements proposed to delineate the learning objectives achieved sufficient consensus (above 75.0%) and were accepted. The analysis of the defuzzification values to rank the sub-elements, according to experts' consensus is shown in Table 3. Results showed that being able to do simple addition and subtraction achieved the highest ranking (defuzzification value=0.725), followed by writing and counting numbers in the second rank (defuzzification value=0.688), and understanding shapes and sizes in the third rank (defuzzification value=0.675).

Content of CABAMath

In content of CABAMath, five main elements with twenty sub-elements were proposed. However, only four of the main elements comprising ten sub-elements were accepted, as shown in Table 3.

The understanding of subtraction secured the top rank (defuzzification value=0.750), followed by five sub-elements tied for second place with an equal defuzzification value of 0.738. These elements include understanding the concept of addition, addition for numbers below 20, subtraction for numbers below 10, ordering numbers, and practicing the concept of bigger, and smaller. The third rank was obtained by writing and counting numbers 0 to 10, with a d value of 0.725.

Table 3
Experts' consensus on elements of CABAMath

Objectives	Fuzzy evaluation			Defuzzification	Ranking
1. Understanding shapes and size	0.475	0.675	0.875	0.675	3
2. Write and count numbers	0.488	0.688	0.888	0.688	2
3. Write and read mathematical words	0.425	0.625	0.825	0.625	Rejected
4. Able to do simple addition and subtraction	0.525	0.725	0.925	0.725	1
5. Understand Malaysian currency	0.375	0.563	0.763	0.567	Rejected
6. Able to proceed with a simple purchase	0.419	0.613	0.813	0.615	Rejected
Content	Fuzzy evaluation			Defuzzification	Ranking
Understanding shapes, size					
1. Drawing basic shapes: square, triangle	0.513	0.713	0.913	0.713	4
2. learning basic colours: red, green	0.463	0.663	0.863	0.663	Rejected
3. Practicing concept of bigger, smaller	0.538	0.738	0.938	0.738	2
Learning Numbers					
4. Writing and counting numbers 0 to 10	0.525	0.725	0.925	0.725	3
5. Writing and counting numbers 11 to 20	0.488	0.688	0.888	0.688	5
6. Writing and counting numbers 21 to 50	0.419	0.613	0.813	0.615	Rejected
7. Ordering Numbers	0.538	0.738	0.938	0.738	2
Write and read alphabetical form of:					
8. Numbers 0 to 10	0.475	0.675	0.875	0.675	6
9. Numbers 11 to 20	0.450	0.650	0.850	0.650	Rejected
10. Numbers 21 to 50	0.400	0.600	0.800	0.600	Rejected
11. Learning about mathematical signs	0.425	0.625	0.825	0.625	Rejected
Simple Addition and Subtraction					
12. Understanding concept of addition	0.538	0.738	0.938	0.738	2
13. Understanding concept of subtraction	0.550	0.750	0.950	0.750	1
14. Addition number below 10	0.538	0.738	0.938	0.738	2
15. Subtraction number below 10	0.538	0.738	0.938	0.738	2
16. Addition numbers below 50	0.431	0.625	0.825	0.627	Rejected
17. Subtraction numbers below 50	0.431	0.625	0.825	0.627	Rejected
Understand Malaysian currency					
18. Knowing Malaysian money (coins)	0.444	0.638	0.838	0.640	Rejected
19. Knowing Malaysian money (paper note)	0.469	0.663	0.863	0.665	Rejected
20. Practicing counting money	0.431	0.625	0.825	0.627	Rejected
Instructional Strategies	Fuzzy evaluation			Defuzzification	Ranking
1. Drill and practice	0.488	0.688	0.888	0.688	3
2. System of least prompts	0.425	0.613	0.813	0.617	Rejected
3. Constant time delay	0.400	0.588	0.788	0.592	Rejected
4. Simultaneous prompting	0.413	0.613	0.813	0.613	Rejected
5. Reinforcement	0.500	0.700	0.900	0.700	2
6. Simple math game	0.550	0.750	0.950	0.750	1

Table 3 (continue)

	Fuzzy evaluation			Defuzzification	Ranking
7. Touch math	0.438	0.625	0.825	0.629	Rejected
8. Task analysis	0.444	0.638	0.838	0.640	Rejected
Curriculum					
9. Early numeracy curriculum	0.500	0.700	0.900	0.700	2
10. Malaysian Curriculum for special students.	0.438	0.638	0.838	0.638	Rejected
11. Standard Malaysian curriculum	0.338	0.506	0.700	0.515	Rejected
User Interface	Fuzzy evaluation			Defuzzification	Ranking
Background colours and font size					
1. Soft and light colours to use in background	0.444	0.638	0.838	0.640	Rejected
2. Avoiding overly bright colours in background	0.463	0.663	0.863	0.663	Rejected
3. Changeable theme of colour	0.425	0.625	0.825	0.625	Rejected
4. Using a readable font in a standard size	0.525	0.725	0.925	0.725	1
5. Use one touch selecting to choose letters for alphabetical writing	0.456	0.650	0.850	0.652	Rejected
6. Using cartoon characters in user interface	0.381	0.575	0.775	0.577	Rejected
Sound and music					
7. Narration in some steps (learning numbers)	0.450	0.650	0.850	0.650	Rejected
8. Playing background music during tasks	0.344	0.538	0.738	0.540	Rejected
9. Playing background music before starting tasks	0.413	0.613	0.813	0.613	Rejected
10. Sound effects in solving tasks	0.463	0.663	0.863	0.663	Rejected
11. Capability of voice over	0.369	0.563	0.763	0.565	Rejected
Features and Option	Fuzzy evaluation			Defuzzification	Ranking
1. Available for both mobile phone and tablet	0.500	0.700	0.900	0.700	Rejected
2. Customisable mathematical Subjects	0.469	0.663	0.863	0.665	2
3. Report on each student's progress	0.525	0.725	0.925	0.725	1
4. Option to disable the narration	0.438	0.638	0.838	0.638	Rejected
5. Usable for multiple users	0.419	0.613	0.813	0.615	Rejected
6. Hints and solutions available for all steps	0.438	0.638	0.838	0.638	Rejected
7. Option to skip steps by student	0.400	0.588	0.788	0.592	Rejected
8. Option to disable sound / music	0.425	0.619	0.813	0.619	Rejected
9. Showing dashboard for progress of each kid	0.463	0.656	0.850	0.656	3

Source: Famildardashti (2025)

Drawing basic shapes: square, triangle attained the fourth rank, with a d value of 0.713. Writing and counting numbers 11 to 20 were placed fifth (defuzzification value=0.688) while learning numbers 0 to 10 received the sixth rank (defuzzification value=0.675) among all the sub-elements. The remaining sub-elements did not garner consensus among the experts and were consequently rejected.

Instructional Strategies and Curriculum of CABAMath

For the Instructional Strategies, eleven sub-elements were suggested. The findings, as depicted in Table 3, revealed that a simple math game (defuzzification value=750), merged as the highest-ranked item, garnering significant consensus among experts. In mathematics education, game-based learning offers numerous advantages that enhance the teaching and learning experience as it motivates students to learn mathematical concepts subconsciously, fostering the development of strong foundational mathematical skills (Ramli et al., 2023).

Sub-elements for reinforcement and early numeracy curriculum (MOE, 2015) equally obtained the second rank. The early numeracy curriculum, *Dokumen Standard Kurikulum dan Pentaksiran* (DSKP), is designed by the Malaysian Ministry of Education (MOE) under the Curriculum Development Division (CDD).

The sub-element drill and practice achieved the third rank (defuzzification value =0.688). Drill and practice is an instructional approach that involves repeating exercises that are utilised to develop and perfect a skill or method (Lim et al., 2012). The remaining elements failed to meet the threshold for consensus, leading to their rejection in the instructional strategies section.

The User Interface of CABAMath

Concerning the user interface of CABAMath, eleven sub-elements were suggested but only one sub-element, using a readable

font in a standard size (defuzzification value=725), was accepted as the highest rank (see Table 3). Based on the CTML theory, individuals tend to acquire a deeper level of understanding when exposed to a combination of textual and visual information, as opposed to textual or pictorial information alone. Therefore, it is imperative to consider the use of readable fonts alongside images in the application.

The rejection of sub-element involving cartoon characters in the user interface is rooted in the ASD child's short attention span (May et al., 2013). Children with autism often exhibit difficulties in disengaging and orienting their attention, heightened focus on specific tasks or topics, and a reduced capacity to filter out distractions (Ridderinkhof et al., 2020). It's important to eliminate secondary content that could distract the user. Limiting the number of features at one time is essential to optimising children's concentration, and learning outcomes (Aguilar et al., 2022). In this study, the term "cartoon characters" referred to superheroes and famous personas from the world of children's entertainment. For children with developmental delays, it's crucial to avoid using pictures that are non-relevant or overly abstract (Dattolo & Luccio, 2017).

The changeable theme and colours are another rejected sub-element. The guidelines suggested by Aguilar et al. (2022) emphasised minimising ASD students' distraction in the application design and keeping it simple. On the other hand, children with ASD do not like changes

and often thrive in environments with established routines and may become upset, distressed or frustrated when changes are introduced (Rehman et al., 2021). Hence, CABAMath design incorporated only one colour theme.

Sub-elements with overly bright colours or too soft colours were rejected by experts. According to Rehman et al. (2021), the main navigation and pages should utilise simple colours rather than bright ones. Contrast in user interface colours is a critical consideration (Aguiar et al., 2022). CABAMath employs simple colours with medium radiance and brightness to ensure contrast without excessive brightness or softness.

The remaining sub-elements regarding sound effects, background music, narration, and voice-over were rejected based on expert consensus (Table 3). Experts have indicated that auditory sub-elements may be distracting for ASD students. As one expert quoted “children with autism are highly sensitive to sensory overload and are easily distracted. So, using sounds or music may not be a good choice”. Furthermore, according to guidelines from Dattolo and Luccio (2017), background sounds, moving text, and blinking images should be avoided, as they can be distracting and overwhelming for ASD individuals. Aguiar et al. (2022) also advised to “avoiding the use of disturbing sounds”. Consequently, the CABAMath design avoids any type of music and sound entirely.

Students with ASD have limited capacity to tolerate noise (Scheerer

et al., 2022). Instead, in CABAMath, teacher-led instruction involving reading and writing will be employed for dual-channel processing. In alignment with the CTML theory, particularly the dual-channel assumption. According to this theory, humans process information through separate channels for visual/spatial and auditory/verbal representations as well as the concept of active learning, where individuals attend to relevant information, organise it into coherent mental representations, and integrate it with existing knowledge (Mayer, 2005).

Features and Options of CABAMath

Regarding the features and options for CABAMath, nine sub-elements were suggested (Table 3). Each of these sub-elements was carefully evaluated. The findings revealed that the report on each of the student’s progress (Defuzzification value=0.725), ranked highest, followed by the customisable mathematical subjects in second rank with d value 0.665, and showing dashboard for the progress of each kid (Defuzzification value=0.656) secured the third position. The sub-element report on each student’s progress ranked first due to its crucial role in monitoring the educational progress of ASD individuals. According to Deno (1985), progress monitoring can be defined as “the simple repeated measurement of student performance toward a long-range goal”.

The customisation of mathematical subjects for each student is due to the fact that ASD students exhibit a diverse range

of disabilities, varying from case to case (Hodges et al., 2020). Additionally, they may possess differing levels of mathematical knowledge, cognitive abilities (Peklari, 2019) , and conceptual understanding (Siregar et al., 2020).

The rejected sub-elements, include music and narration features, which were mainly rejected in the previous section (see Table 3) . The availability of both mobile phones and tablets is another rejected sub-element. Although designing for mobile devices could include handphones and tablets, in this study, experts' consensus rejected developing the CABAMath for both types of devices. Experts recommended focusing solely on designing CABAMath for one type of device at this stage. According to Aguiar et al. (2022), tablets offer advantages for individuals with ASD due to their large screens, which facilitate easy selection of icons or menu items, data input, and other interactions. Hence, the design of this study prioritised measurements suitable for use on tablets in the first stage.

The sub-element hints and answers in all steps rejection, experts suggested making hints available for some steps only to engage the cognitive thinking and memory working of ASD students. As for the sub-element option to skip steps by the student, experts mentioned that these actions should be available exclusively for teachers and not for students. As one expert quoted” If the mobile app aims to ensure the learning process is completed by the student, then options to skip steps should be avoided or solely under the control of the instructor.”

The need for customisation and individualisation of the application for each ASD user led to the rejection of the sub-element that could serve multiple users. Opting for single-user optimisation enhances progress monitoring and improvement tracking, thus better meeting the needs of individual users.

The Framework of the CABAMath Design

The app's structural framework prioritises painting, drawing, and colouring as primary activities. These tasks engage students in mathematical concepts by involving counting, colouring objects, drawing shapes, and painting objects according to mathematical tasks.

The visual representation of the framework of CABAMath is demonstrated in Figure 1. The study implements CABAMath by offering versions in both English and Bahasa Melayu, catering to a wider user base in Malaysia. According to Dattolo and Luccio (2017), “language is a key issue when dealing with impaired users”.

Based on the experts' consensus and ranking achieved through FDM analysis, among the elements of the objectives in CABAMath, the priority element was simple addition and subtraction. Regarding the content of CABAMath, the sub-element of understanding subtraction received highest rank. Consequently, applying simple addition and subtraction both ranked second, equally. The foundational skills include number recognition, basic operations like addition, subtraction, multiplication,

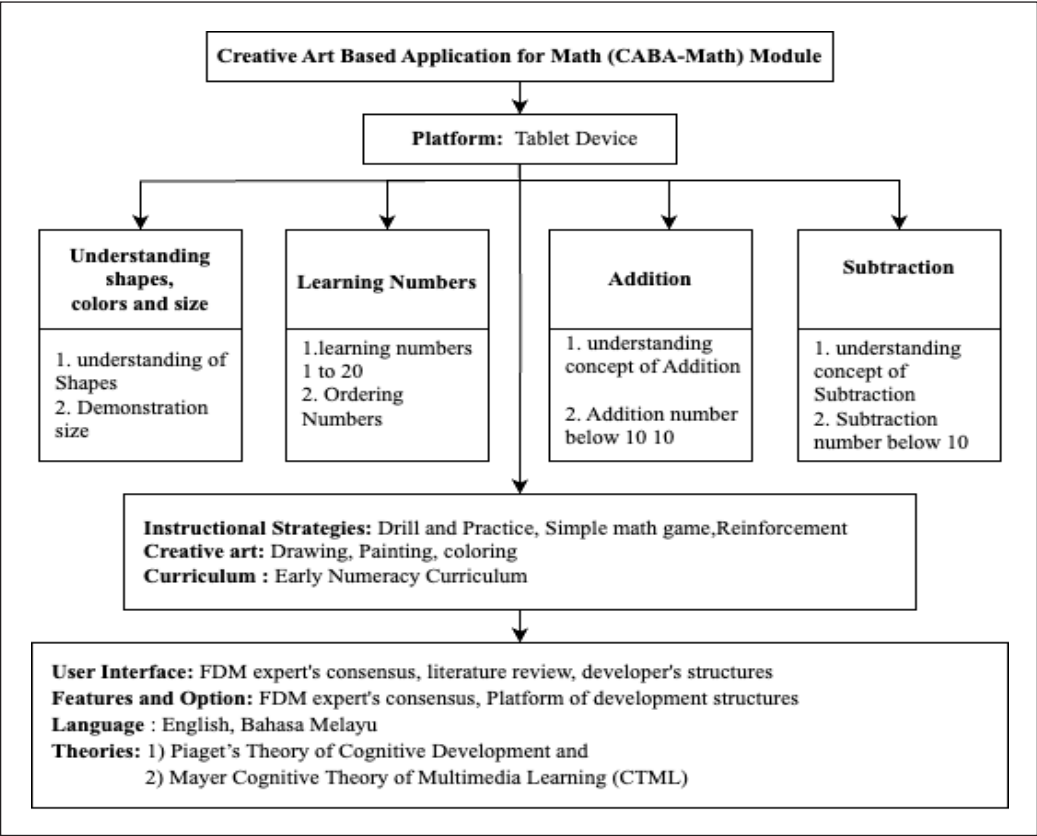


Figure 1. The framework of CABAMath design
Source: Famildardashti (2025)

and problem-solving abilities (Yusaini et al., 2019). Proficiency in fundamental mathematical operations is imperative for effectively resolving problems in daily life as indicated by Park et al. (2020). In the literature, various studies have explored teaching operations in mobile applications for individuals with ASD, employing diverse instructional strategies and approaches. These include game-based learning (Che Ku Mohd et al., 2020). It is important to note that these approaches differ from the primary approach of CABAMath, which employs creative art.

The writing and counting of numbers were ranked second among objectives and third rank for content of CABAMath. Numeracy serves as the fundamental subject for the progression of mathematical education to subsequent levels (Aunio et al., 2021). According to Yusaini et al. (2019), numeracy is primarily focussed on the application of mathematical knowledge and skills for problem-solving purposes. In this regard, most of the available mathematical applications in the body of literature target numerical abilities (Karanfiller et al., 2018; Ntalindwa et al., 2021; Winoto et al., 2018).

According to Peklari (2019), children must learn to associate numbers as represented by value, auditory verbal, and visual English codes. Hence, in this study, numerical abilities include learning numbers from zero to twenty in counting, writing, reading, and ordering based on the experts' consensus. The sub-element of ordering numbers zero to ten was ranked sixth based on experts' consensus.

In the objectives the third rank was for the understanding of shapes and sizes, but it ranked fourth among the contents sub-element. There are few studies available with the aim of teaching shapes and colours to ASD students (Winoto et al., 2018). The CABAMath application focuses on familiarizing ASD students with essential shapes and understanding the concept of size. In terms of instructional strategies, simple math games are ranked first. Research by Sousa and Costa (2018) suggests that learning strategies focussed on digital games have shown more significant effects compared to traditional approaches in general interventions. Research has demonstrated that a game-based intervention for ASD students enhances their motivation, participation, and engagement in math learning (Pradiante, 2022). Nonetheless, CABAMath is designed to utilise creative art in the form of a simple math game.

Reinforcement received the second rank among the instructional strategies. Teachers can effectively foster students' enthusiasm for learning mathematics by providing positive reinforcement. This can take the form of verbal encouragement,

such as praise, or nonverbal reinforcement, including thumbs-up gestures and smiles, as well as symbolic rewards like small gifts, which help further reinforce students' engagement and motivation in the learning process (Sumiati et al., 2019). CABAMath uses digital stickers with motivational pictures and phrases to reward ASD students after completing each skill. These stickers demonstrated achievement by indicating skill completion and error-free problem solving.

The drill and practice is the third rank sub-element of instructional strategies. Drill and practice involves the acquisition of knowledge or skills through systematic training characterised by repeated rehearsals and practice to enhance learning and mastery (Famildardashti et al., 2024; Laleye & Ogunboyede, 2023). Christensen and Gerber (1990), evaluated the effectiveness of integrating a drill and practice task into an arcade game-like setting for teaching learning disabled students fundamental math concepts. The results showed considerable learning improvements after implementation. Tournaki (2003) conducted a study focusing on teaching addition through drill and practice, which resulted in significant improvement among both students with and without disabilities. CABAMath aims to utilise the drill and practice strategy within a mobile application.

In prioritising the user interface, the first rank was for incorporating readable fonts in standard sizes. Using a suitable font in the user interface helps to gain the attention of ASD students. The guidelines,

as outlined in studies such as those by Davis et al. (2010), and the systematic review conducted by Gopalakrishna et al. (2013), were thoroughly used in terms of fonts and images for the user interface design of the CABAMath.

A report on each student's progress and showing a dashboard for that emerged as the first and third priorities among sub-elements of the features and options. To ensure the effectiveness of the chosen approach for an individual child with ASD, systematic monitoring of the child's progress is crucial (Siyam, 2018). Nonetheless, educators can effectively monitor each student's academic development with CABAMath's detailed progress reports.

Based on expert consensus, customizable mathematical subjects by instructors, for each student emerged as the second priority. While utilising CABAMath, teachers must ensure adaptive interaction with users, taking into account their profile, limitations, preferences, requests, and needs (Dattolo & Luccio, 2017). In addition to improving the user experience and efficacy of the setting where students feel supported and encouraged, this customisation guarantees that the programme takes into account individual needs and preferences (Aguiar et al., 2022). Because of the flexibility of the CABAMath's architecture, educators can modify assignments according to the skills and knowledge of each individual student. Moreover, fewer cognitive skills are required for ASDs to engage with the content and solve tasks (Dattolo & Luccio, 2017). By providing a blank canvas for

drawing within each mathematics skill, CABAMath allows teachers and instructors to construct and personalize projects, further adapting and customising the learning experience. Students study math subjects by painting, colouring, and drawing throughout the CABAMath, making learning enjoyable. The software is adjustable and simply provides hints and answers for particular tasks to assist students learn.

The next phase involved the development of the CABAMath application based on framework designed from experts' consensus. The CABAMath application are employed instructional strategies such as drill and practice and reinforcement with the flexibility of repeating tasks multiple times and at the students' own pace (Famildardashti et al., in press). shows selected The user interface for the CABAMath mobile application on the understanding of shapes and learning numbers from 0 to 5 are shown in Figure 2 and Figure 3 respectively.

CONCLUSION

In conclusion, CABAMath is a significant endeavor to improve mathematics skills among ASD students categorised in level one severity based on DSM-IV. The Fuzzy Delphi Method (FDM) was employed to achieve experts' consensus on CABAMath's design. The experts ranked objectives, mathematical content, instructional methodologies and curriculum, user interface, features, and options. The CABAMath app uses creative art including digital drawing and painting on a blank

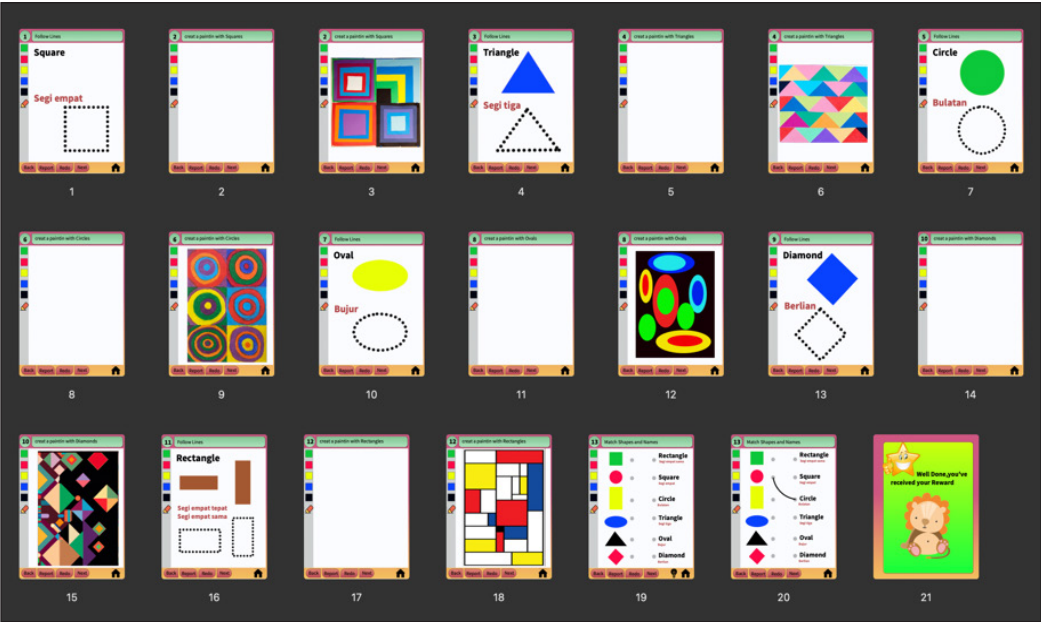


Figure 2. User interface of understanding of shapes in the CABAMath application
Source: Famildardashti (2025)



Figure 3. User interface of learning numbers 0 to 5 in the CABAMath application
Source: Famildardashti (2025)

canvas and colouring shapes and objects (Figure 2 and 3).

Implications of the Study

The CABAMath was designed to cater to the diverse needs of ASD students, incorporating elements of creative art to engage learners in enjoyable and effective mathematical learning experiences. CABAMath transcends traditional pedagogical approaches, offering a dynamic and interactive learning environment. With customisable features and a range of activities spanning from basic to advanced levels, the application offers flexibility to accommodate the varying abilities of students.

Challenges of using CABAMath Application

There are several challenges in developing the CABAMath application for students with ASD. A major issue is the need to address the different cognitive capacities due to differing level of understanding and the variety of learning styles among students with ASD. In addition, students need to be motivated with an engaging user interface. The interface should be structured, without leading to excessive stimulation which could cause sensory overload, and yet insufficient interaction could fail to sustain the students' motivation. In order to accommodate ASD children's sensory sensitivities, the user interface design to be balanced in considering visual attractiveness and simplicity.

Further, there could be technological challenges such as availability of digital devices and compatibility with assistive technology, which may limit ASD individuals' use of the application. Another crucial concern is the need for training among teachers and parents to ensure the CABAMath application is implemented effectively. Without sufficient training support, the potential benefits of CABAMath could be limited. Finally, teachers need to balance the time spent on the CABAMath application so as not to encourage an addiction to the use of mobile tools, but to optimise digital learning to ensure the effectiveness of the application as an assistive tool for improving mathematical skills among ASD students.

Limitations and Recommendations for Future Research

The study is limited by the experts who participated in the study. Although efforts were made to ensure the experts achieved the criteria of expertise in the areas identified, the experts were influenced by their personal outlook and view of ASD students' condition and needs based on their experience. A panel of different experts could provide different opinions.

Future research endeavors could entail the integration of the CABAMath application in teaching ASD students mathematics in schools and learning centres catering to ASD students to evaluate the effectiveness and usability of CABAMath in different contexts.

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Women's Contestation of Traditional Space: The Existence and Identity Transformation of *Ludruk* in Indonesia and *Makyong* in Malaysia

Akhmad Taufiq^{1*}, Furoidatul Husniah¹, and Fazilah Husin²

¹Indonesian Language and Literature Education Programme, Faculty of Teacher Training and Education, University of Jember; 68121 Jember, Indonesia

²Department of Malay Language, Faculty of Modern Languages and Communication, University Putra Malaysia, 43400 Serdang, Selangor, Malaysia

ABSTRACT

This study aimed to explain women's positions and roles in *ludruk* in the *wetanan* (eastern) region of East Java, Indonesia, and those in *makyong* in Malaysia. Studies centring on traditional women provide a unique academic forum to scrutinise their existence. This study was intended to contribute to that area of inquiry by exploring identity transformation in two genres of traditional performing arts in two Southeast Asian countries. Employing a critical ethnographic approach, it sought to make explicit the relationship between the two performing arts from the perspective of traditional women. Furthermore, it investigated the identity transformation emerging in *ludruk* and *makyong*. Data was gleaned from key informants involving *ludruk* leaders of Setia Kawan and Maharani groups in Indonesia. For the *makyong* in Malaysia, data was retrieved from the fourth generation of *makyong* performers. The results of this study revealed women's pivotal roles in the development of *ludruk* and *makyong*. The performance stage offers them decent and critical roles in both arts. Both traditional arts have experienced transformation in performance identity, especially concerning the traditional art ideology and performance structure as a response to ever-evolving market demands. In this regard, adaptable management of traditional arts is key to maintaining the continuity of *ludruk* and *makyong*. In this regard, theoretical implications of the study enhance our knowledge about the existence and development of traditional performing arts, and more particularly the dynamic

interaction between the ideological foundations. In real-life application, the study offers practical suggestions for curriculum planning of drama arts education.

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E-mail addresses:

akhmadtaufiq@unej.ac.id (Akhmad Taufiq)

furoidatulhusniah@unej.ac.id (Furoidatul Husniah)

fazilahh@upm.edu.my (Fazilah Husin)

*Corresponding author

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INTRODUCTION

This study delved into the existence of traditional women in *ludruk* in Indonesia and *makyong* in Malaysia, which has not received sufficient attention to date. Several studies related to *ludruk* state men dominate the performance (Maryeni, 2002; Abdillah, 2009; Supriyanto, 2018). This phenomenon is often seen especially in *ludruk* performances in the *kulon* (western) regions of East Java, namely Surabaya, Malang, Jombang, Mojokerto, Sidoarjo, and Lamongan. The dominance of men has raised the need to view this cultural praxis from women's perspectives, which have been unheard. Likewise, research related to the traditional art of *makyong* in Malaysia has yet to receive serious attention, especially from the perspective of women. Yousof (1976) and Fazli and Husin (2020) researched *makyong*, revealing many stories and performances. In a greater lens, the roles of traditional women viewed from the lens of contestation space, power relations, and domestic roles are hardly understood.

In the context of international cultural studies, the present study responded to this gaping void, particularly at the Southeast Asian regional scale. It aimed to contribute significantly to the study of international traditional art contestation. In doing so, it employed critical ethnographic studies to explore the positions and roles of *ludruk* women, anchored in developing issues (Spradley, 1997; Madison, 2005). The concept of contestation space was engaged as an analytical framework to explore, analyse, and interpret the positions and

roles of women as actresses in traditional art performances. Furthermore, in the aspect of political-power relations, this study explored, read, analysed, and interpreted the relations of *ludruk* and *makyong* women with various authorities. By doing so, the study was aimed at capturing a nuanced understanding of the intersections between traditional art, gender, and political authorities in their respective regions.

The present study was conducted to discover the academic concepts and propositions concerning the existence of traditional women, which have not been thoroughly examined through the lens of their positions and roles in *ludruk* performances in Jember, Indonesia, and the traditional art of *makyong* in Malaysia. This line of inquiry affords strategic implications for strengthening *ludruk* and *makyong* communities.

This study was divided into three foci. First, it aimed to investigate the space for women's contestation and the performance of *ludruk* in the eastern regions of East Java, and the traditional art of *makyong* in Malaysia. Another area of investigation pertained to the identity transformation occurring in *ludruk* and *makyong* when faced with the ever-growing market tastes. Finally, the study sought to draw implications for the management of these traditional performing arts.

LITERATURE REVIEW

This study offers distinct viewpoints on traditional cultural practices by investigating *ludruk wetanan*, which is different from

ludruk kulonan (Taufiq, 2013). Meanwhile, the inquiry into *makyong* lends credence to revealing the underlying values of Malaysian traditions. These two areas of inquiry hold the potential to extend cultural studies in the Southeast Asian context.

The role of women in *ludruk* in eastern regions of East Java, especially Jember and its surroundings, is complex in that it overarches beyond providing space for art performances as it manifests the dynamics of ethical rules and socio-cultural position of *ludruk* women. From an ethical viewpoint, Mak Lilik, the leader of the Setia Kawan group, considered putting a man in a woman's role to be inappropriate. Pak Edi, the leader of Topeng Masa Baru Jember *ludruk*, even argued that involving men (travesty) would result in substantial economic waste (Taufiq, 2022; Taufiq, 2019). These ethical and economic considerations hold an impact on the involvement and roles of women in *ludruk*.

Makyong resembles other Southeast Asian traditional theatres. It showcases traditional dance drama from northern Malaysia, especially the state of Kelantan. This traditional performance has received extensive emphasis in research for more than four decades (Fazli & Husin, 2020; Hardwick & Patricia, 2020; Pudentia, 2010; Yousof, 1976). Hardwick and Patricia (2020) mentioned that *makyong* is a Malay dance drama that was once performed for entertainment and medicinal purposes. Included in the national exhibition of Malaysia's cultural heritage since the mid-1970s, *makyong* was declared a Masterpiece

of the Oral and Intangible Cultural Heritage of Humanity by UNESCO in 2005.

Makyong has existed for hundreds of years in the Malay world, especially among the Malay community in the state of Kelantan, Peninsular Malaysia (Sheppard, 1983). It can also be found in southern Thailand, as well as in Riau Islands and North Kalimantan in Indonesia (Tan & Shafii, 2021). *Makyong* combines all the elements of a stage performance, including acting, dancing, singing, musical instruments, special movements, costumes with fine jewellery, and comedy acts. According to UNESCO (2024), *makyong* is a form of traditional theatre performed both for entertainment and as part of therapeutic rituals, particularly in the case of *makyong main peteri*. Albeit its designation as part of UNESCO's Intangible Cultural Heritage (ICH), *makyong* encounters a paradoxical status in its home country, where it was formally banned in its place of origin, Kelantan. As a corollary, whether *makyong* manifests as a Malay cultural symbol for religious reasons is often debated in Malaysia.

Given this debate, research on *makyong* has become increasingly essential for traditional art studies in Southeast Asia, since such an inquiry affords potential insights into the relationship between *makyong* and other traditional arts in other regions. The present study was devoted to that objective by diving deep into the position and roles of women in *ludruk wetanan* and *makyong*. Particularly, it employed contestation space and power relations as the analytical lenses.

Studies concerning *ludruk* have thus far focussed on *ludruk* performances in western regions of East Java, reporting *ludruk* as a treasure trove of traditional drama in East Java. Several related studies have explored various aspects of *ludruk*, including comedy and structure (Peacock, 1967), symbolic elements (Hefner, 1994), its language as the voice of the “little people” (Maryeni, 2002), innovations in the Arek community (Abdillah, 2009), adaptation to changing times (Supriyanto, 2018), and its development in Surabaya (Sumiyani, 2020).

Some of these studies have generally focussed on the development of *ludruk* in western regions of East Java, namely among the Arek community, which includes Surabaya, Malang, Mojokerto, Sidoarjo, Jombang, and Lamongan. Meanwhile, not much research has been conducted in eastern regions of East Java. Among the few studies conducted in this underexplored region, Taufiq (2013) focussed on postcolonial studies of *ludruk*, Taufiq and Sukatman (2012) explored the development strategy for *ludruk* in Eastern Java, and Taufiq (2013) documented the characteristics and strategic implications of *ludruk wetanan*. In addition, Taufiq and Sukatman (2014) revealed the adaptation strategy for facing the onslaught of the entertainment market industry, Taufiq, Husniah, and Siswanto (2019) documented the revitalisation of Setia Kawan, and Taufiq (2022) examined the reflection of power, performance characteristics, and development strategies surrounding *ludruk*.

By contrast, *makyong* has received sufficient attention in cultural studies. Fazli and Husin (2020), Hardwick and Patricia (2020), Pudentia (2010), and Yousof (1976) are some of the studies conducted in this area. These studies focussed more on traditional *makyong* art as a performance structure and external penetration in political and religious fields. While Yousof (1976) and Fazli and Husin (2020) focussed more on the performing arts dimension, Pudentia (2010) and Hardwick and Patricia (2020) tapped into the revitalisation and UNESCO recognition of *makyong*.

Makyong is intrinsically linked to women, as its name incorporates the term “*mak*,” an abbreviation of “*emak*,” which denotes a mother or a woman with children. Tan and Shafii (2021) clarified that “*makyong*” is associated with the word “*Mak Hyang*,” which refers to the spirit of rice. To ensure abundant rice harvests, the people of the past worshipped the spirit of the Rice Mother by performing dances and drama every season. These practices are believed to be the outsets that marked *makyong* offerings.

Tan and Shafii (2021) mentioned the existence of a record of a European trader invited to the palace of King Hijau, who ruled Patani in southern Thailand between 1585 and 1680. The trader stated that while he was in the palace, a “*commedye*” was performed by a group of women. The term “*commedye*” is like “*commedia dell’arte*,” an Italian word that refers to a group theatrical performance with stock characters who appear in each performance

(Britannica, 2024) with a different story. Stock characters, such as the King, Empress, and Governess, remain consistent in their roles and traits, differing only in their specific names.

Within the spectrum of traditional performing arts in Southeast Asia, Indonesia's *ludruk* and Malaysia's *makyong* need to be read, positioned, and interpreted through the lens of traditional women and the transformation of performance identity, shaped by the ever-growing collective society and market demand. In this context, the role of women in traditional performing arts—both in *ludruk* in Indonesia and *makyong* in Malaysia—should be framed within a gender-sensitive perspective that promotes equal opportunity and broader access to participation in performances (Bettina & Helga, 2001; Mursih, 2018; Tamrin, 2024). This emphasis is particularly crucial given the prevailing patriarchal tendencies within both the internal management structures of *ludruk* and *makyong*, as well as the broader socio-cultural and political systems that shape and reinforce gender hierarchies in these traditional art forms.

In this context, the conventional drama performances—such as *ludruk* in Indonesia and *makyong* in Malaysia—are generally insensitive toward gender justice issues. For example, women's involvement in these performances is always pushed to the margins with not much room for engagement in more important aspects such as performance management (Szostak, 2023; Yang, 2022). Therefore, paying heed

to the role performed by women in these conventional forms of art takes on critical scholarly significance and warrants proper scrutiny.

METHODOLOGY

Embracing a critical ethnographic approach, this qualitative research aimed to discover the academic concepts and propositions regarding the phenomena of *ludruk* women in the Jember city of East Java, Indonesia, and the traditional art of *makyong* in Malaysia. Qualitative data in written and spoken forms were collected in words, sentences, and paragraphs. The data were analysed according to research needs (Denzin, & Lincoln, 2009). The research attempted to dismantle ideological, political, economic, and socio-cultural structures (Madison, 2005), while aiming to empower and guide marginalised groups (Creswell, 2008; Madison, 2005). The groups under scrutiny were women in *ludruk* and *makyong* communities. The *ludruk* community had been systematically marginalised by political, social, and economic dynamics (Ghajarieh et.al, 2023; Lesmana, et.al, 2021; Yuliani, 2010).

As marginalised groups, women in *ludruk* and *makyong* communities are worthy of careful investigation and interpretation to gain a thorough understanding of their complex strategic positions and roles. Specifically, the present study intended to explore the contestation and complex power relations, driven by the ideological structures, market preferences, and the performing arts themselves. This critical

ethnographic approach was carried out in two stages. First, the study used Spradley's (2007) traditional ethnographic approach to explain, analyse, and interpret the emic data of *ludruk* and *makyong* women. Second, a critical ethnographic analysis was operationalised by exploring, reading, analysing, and critically interpreting the phenomena involving women to reveal the network of ideological structures, markets, and performing arts (Bettina & Helga, 2001; Creswell, 2008; Madison, 2005; Sagrestano, 1992). This later stage sought to discover the existence, position, and strategic roles of women, as well as the contestation of space and power relations surrounding *ludruk* and *makyong*.

Data were sourced from two *ludruk* groups in Jember, namely Setia Kawan and Maharani. In addition, the fourth-generation heir to the traditional art of *makyong* in Malaysia was recruited. The data were gleaned using ethnographic interview techniques, a series of interviews that engaged in participatory conversation with ethnographic questions. Drawing on Spradley's (1997) typology of ethnographic questions, the study utilised: (a) descriptive questions to gather data expressed in the informants' language; (b) structural questions to uncover core elements of the informants' cultural knowledge; and (c) contrast questions to identify the distinctions made by informants in their cultural frameworks. Spradley's ethnographic interview technique was followed by Madison's (2005) critical ethnographic interview technique to critically investigate the roles and positions of women in the

aforementioned phenomena. By employing traditional and critical ethnographic methodologies, this study sought to generate a nuanced understanding of the intersectional challenges and opportunities faced by the two traditional art performances, especially by women who have been immersed in these arts. In this regard, the process of data triangulation is deemed essential. In this study, triangulation was conducted directly with key figures in the traditional *ludruk* performances of Setia Kawan and Maharani Jember, namely Ms. Wulan and Mr. Giman. For the traditional art of *makyong*, data triangulation was carried out with Mama Fatimah.

FINDINGS AND DISCUSSION

In exploring the phenomena involving traditional women in *ludruk* in Indonesia and *makyong* in Malaysia, this ethnographic study has discovered two important findings. First, the significance of women in both performing arts is indicated not only by the number of actresses involved but also by their strategic positions and roles in the entire performance and its management. Their positions and roles are pivotal to the success of the performances. Second, the identity transformation associated with women in both arts is inevitable for the group leaders. In this case, this identity transformation denotes a dynamic discursive space bridging the ideology of traditional arts (values), actors, and shifting market preferences. Further details on the research findings are hereby presented. Table 1 shows the contestation of traditional women.

Table 1
The contestation of tradition women

Contestation of Tradition Women	<i>Ludruk</i>	<i>Makyong</i>
The existence of tradition women	There is a significant number of female ludruk players. In addition to the number, there is a strategic role position as a ludruk leader.	The center of the show is women. Young professional girls are given big roles, choosing the stories.
Identity transformation	The transformation of ludruk identity is shown by actors, plays/stories, language on stage (Javanese and Madurese), and the flexibility of the performance influenced by the market. There is a negotiation between the ideology of art, the actors, and the market.	The transformation of Malay story identity is presented flexibly following market tastes. There is a meeting point between art ideology, actors, and the market.

The Existence of Women in *Ludruk* and *Makyong* Traditions

The Positions and Roles of Women in Ludruk and Makyong

The contestation of traditional women is an appealing area of inquiry to better understand their roles on the stage (Anoegrajekti, 2016). This phenomenon is uniquely present in *ludruk* and *makyong*. In both performance traditions, women shoulder critical roles and positions not only in terms of numbers but also concerning their contribution on the stage.

In this regard, the existence of women can be interpreted from their positions and strategic roles in the performances. In terms of numbers, it is clear that women are dominant in both *ludruk* groups, in that a third of the players are women. There are 10 and 15 female players in Setia Kawan and Maharani, respectively. Below is an excerpt of the interview with *ludruk* practitioners from Setia Kawan.

Researcher: Forty, Ms. Wulan. How many are women?

Ms. Wulan: Out of 40, at least 10 are women. The total 40 includes the crew.
Researcher: So, 10 women in total?
Ms. Wulan: Actually, it's not exactly 40, more or less 40. We've already got responses from 26.
Researcher: So, how many? Not quite 40?
Ms. Wulan: Not quite, it's around 40.
Researcher: Is 40 the total? What about the others? On average. Outside Bandalit? The other responses?
Ms. Wulan: You mean the budget, Sir?
Researcher: No, no, I mean the people.
Ms. Wulan: It's still the same, Sir.
Researcher: How many women?
Ms. Wulan: The women? Around 10. There are six here and four more, so around 10. On average, 10 people.¹

¹ The interview was conducted with practitioners of the traditional *ludruk* art from the Setia Kawan group. The interview took place with the *ludruk* leader and deputy leader, Ms. Wulan and Mr. Slamet, on 28 May 2024, at the *ludruk* leader's house in Jubung village, Jember, Indonesia.

The manager of Setia Kawan mentioned that *ludruk* involves players and *nayoga* totalling 40 people, of which 10 of the players are women. This number is quite large, considering women's involvement being seen as unusual. This is in stark contrast to western *ludruk*, in which only males are recruited (Taufiq, 2013). It means that in western *ludruk*, a male actor assumes a female character.

Therefore, having as many as 10 women in the *ludruk* performance is deemed unusual, especially considering the division of positions and roles between genders. The positions and roles, for example, start from being a *rema* dancer (*remong*), a comedian, an actor in the story, or even a singing artist who becomes an inseparable part of the performance. These diverse roles strongly pronounce the prominence of women in the performances. Notably, even the strategic and multifunctional position of the *ludruk* leader is occupied by a woman. The manager, Ms. Wulan, apart from being a leader, is also a dancer and an actor. This cements the central positions of women in *ludruk* not only in terms of the roles they shoulder but also concerning the complexity and versatility of their contributions (Putri & Anzari, 2021). Below is an excerpt of the interview with Maharani *ludruk* practitioners, offering further insights into these dynamics.

- Researcher: Oh, there are men too. But mostly women? How many women?
- Mr. Gimán: Around 15.
- Researcher: And the men?

- Mr. Gimán: Around 20. Altogether, it's about 50 people.
- Researcher: Oh, total? Including the *nayoga*?
- Mr. Gimán: Yes.
- Researcher: Including the *nayoga*, it's 50. The 15 women, what about their ages, Sir?
- Mr. Gimán: Yes.
- Researcher: Their ages? The age range of those 15 women?
- Mr. Gimán: The ages, well, for the motherly roles, some are 40.
- Researcher: The oldest is how old?
- Mr. Gimán: Around 40.
- Researcher: The youngest?
- Ms. Fitri: The youngest? Oh, those would be the performers. Some are still in school.
- Researcher: In school? Middle school?
- Ms. Fitri: High school.
- Researcher: High school. What grade?
- Ms. Fitri: 12th grade.

The same practice is evident in the Maharani group, in which a total of 50 performers partake and 15 of them are women. In Maharani, women are divided into several positions and roles, including a *rema* dancer (*remong*), a comedian, an actress, and a singer. This accentuates the critical contribution of women in *ludruk* performances in eastern Indonesia (Taufiq, 2022).

Usually, younger players from high school with appealing beauty are recruited as singers. These selection criteria aim to enhance the attractiveness and lure of the performance. The aesthetic elements are carefully designed to create an enjoyable experience for the audience, who predominantly consist of rural residents engaged in agricultural livelihoods. Market

considerations by the leader are a key component. Market demand determines the appearance and performance on the stage. In that context, the female body is sensually portrayed to impress the viewers, primarily to fascinate the audience and ensure commercial viability (Mursih, 2018). Below is the excerpt from an interview that captures similar orientations in *makyong* performances.

- Researcher: In a *makyong* performance, how many actors are usually involved?
- Mama Fatimah: Actually, it depends on the location and the scale of the performance. For a large event, it involves many people. For smaller events, there are usually 10 actors (excluding the musicians). So, the total is around 14.
- Researcher: Typically, what's the maximum number? For instance, on a large stage?
- Mama Fatimah: It can go up to six musicians. But at the very least, there's one person playing three instruments.²

The informant was Mama Fatimah, the heir, practitioner, and instructor of the *makyong* art at National Academy of Arts, Culture, and Heritage (Akademi Seni Budaya dan Warisan Kebangsaan, ASWARA), Kuala Lumpur, Malaysia. She mentioned that the number of performers in *makyong* depends on the venue and scale of the performance. In this case, the bigger the event, the more players are recruited. For small events, *makyong* is usually performed with around 14 players. Regardless of the performance scale, women are at the centre of *makyong*.

Sheppard (1983) argues that *makyong* usually consists of four main (senior) female actors, who play the characters of King, Hero, Empress, and Heroine, along with young women or girls as supporting characters. In the 19th century and earlier, when *makyong* was under the patronage of the king and was performed for entertainment in the palace, the group performing the “overture” of the *Mengadap Rebab* dance consisted of girls no older than 17. In addition to possessing melodious voices and captivating appearances, these performers displayed exceptional discipline and mastery of their craft, developed through rigorous training for a period of at least two years before their stage debut. This extensive preparatory process was particularly critical for the main characters, even the young performers considered to have reached a professional status. Experienced players were usually allowed to lead the Facing Fiddle dance, and they were responsible for selecting the narratives for their group's performance.

² The interview was conducted with Mama Fatimah, whose full name is Mama Fatimah Abdullah. She is a fourth-generation practitioner of the traditional *makyong* art from Kelantan, Malaysia. The interview took place on 18 October 2024 at ASWARA in Kuala Lumpur, Malaysia.

Despite the strict training and role distribution, there remains flexibility in the management of the *makyong* group to remain responsive to market demand. Viewers or the public in general need to be taken into account by the leader or manager. As one of the characteristics of traditional arts, flexibility turns out to be the key to keeping traditional performances attractive and ever-lasting (Rachma & Rahmi, 2019).

Furthermore, the flexibility of organising *makyong* performances is based on the traditional belief that everything is subject to discussion and therefore changes. Flexibility is parallel to the popularity of the performance, achieved by maintaining public interest. This certainly assumes an intersection between *makyong* actors and public interest. In this regard, the existence of the *makyong* art is not only interpreted from its internal capacity as a traditional performing art but also determined by its resonance with the market, or the collective society supporting *makyong*. This notion of market orientation also applies to *ludruk* performances (Rachma & Rahmi, 2019; Taufiq, 2022).

Identity Transformation in Ludruk and Makyong Performances

Interpreting the Relations of Ideology, Market, and Art Performances

In relation to the encounter between traditional performing arts and the market as its supporting force, *ludruk* and *makyong* seem to have transformed to maintain their existence and continuity. The transformation plays a strategic function that drives the

performance structure and helps establish a management system to suit the market demand (Labaronne & Trondle, 2020).

Such an adaption holds a pivotal role in generating positive outcomes. It extends beyond mere performance on the stage to include the ability to communicate with the market and manage the performers' talents. This dual focus ensures the sustainability and relevance of traditional art forms in contemporary settings. The interview excerpt below documents the transformation of the two *ludruk* groups and the *makyong* group. The interview was conducted with the leader and deputy leader of Setia Kawan.

Researcher: Does that mean all females participate?

Mr. Slamet: Yes, I take on all those roles—performing the *remong* dance, participating in contests, and storytelling, especially when there are jokes.

Mr. Slamet: For example, during a contest, there's a master of ceremonies who organises it. But it's different for the *gamelan* music. It's like being an artist, you know? Like a performer. But honestly, I don't enjoy it much.

Researcher: Oh, like a fashion contest? What kind of clothes are worn in these contests?

Ms. Wulan: Clothes like those worn by artists. But I don't wear them often because I don't like them.

Researcher: And the participants are women? How old are they?

Ms. Wulan: Mostly high school girls.

Researcher: High school girls, right? Do they need to be beautiful?

Ms. Wulan: Not necessarily, actually. But they should be well-groomed and look beautiful. For events like that, it's important to appear beautiful.

Researcher: What kind of contests are these? How many participants are there?

Ms. Wulan: Usually, there are about eight participants.

Researcher: How long does each contest last?

Ms. Wulan: The contests usually focus on performances—each participant sings one by one. And their costumes are matched to their performances.

Researcher: So, they wear tailored outfits and sing? Is that what's called a contest? Do they sing Banyuwangian, *dangdut*, or Osing songs?

Ms. Wulan: It depends on the audience's request. Sometimes someone starts singing, and then it transitions into a *ludruk* performance. It's all part of the sound art—whether it's singing, joking, or storytelling.³

For Setia Kawan, performance transformation is unavoidable. The leader

needs to transform the performance by adapting to the shifting tastes of society or the market representing the collective society of *ludruk*. The adaptation is manifested in two things, namely, the contest and songs (Taufiq, 2022). First, it involves the contest procession in the structure of *ludruk*. Another adaptation is the inclusion of local songs, generally comprising Banyuwangian or Osingese songs, Javanese *campursari* songs, and even *dangdut* songs for example.

The adaptation to market tastes only shows the external aspect of the performance. Through a greater lens, the story in *ludruk* and its expression through language embodies more intrinsic and fundamental characteristics. This is shown by the plays that reflect local cultures. The *Sogol* and *Babad Tanah Jember* are two distinct plays typical of Jemberese *ludruk*. The use of flexible languages following market trends is another characteristic, as evident in the use of Javanese or Madurese, or even the use of both languages in harmony. This phenomenon further substantiates the identity transformation of *ludruk* in the eastern regions of East Java. The interview excerpt below sheds light on this artistic adaptation.

Researcher: All women?

Mr. Gimán: There are men too, playing male roles.

Researcher: Oh, so are all the members women? Are there any men?

Mr. Gimán: Yes, there are.

Researcher: I see. According to you, what's the sequence like? The order of a *ludruk* performance?

³ The interview with Ms. Wulan, the leader of Setia Kawan in Jember, was conducted on 28 May 2024.

Mr. Gimán: First, if there are technical plays, it starts with *Burung Garuda*.
 Researcher: So, *Burung Garuda* is always performed, right?
 Mr. Gimán: Yes, and then comes *remong*.
 Researcher: *Remong*, and then?
 Mr. Gimán: Then the artist performance contest.
 Researcher: Artists, singing, various things. And then?
 Mr. Gimán: Then comedy. Storytelling.
 Researcher: In the past, there weren't contests, right?
 Mr. Gimán: That's right.
 Researcher: There weren't contests before. Because it follows the trends. The audience now demands contests. So, there are contests. The contests are purely singing, right?
 Mr. Gimán: Yes, singing.

Similar transformations also emerged in the Maharani group. The leader, Mr. Gimán, was required to initiate the transformation, modifying the performance structure and technical elements to be showcased on stage (Indrayuda & Azrul, 2022). Significant transformation was captured in terms of the performance structure. For example, the traditional performance previously began with the *rema* dance as an opening, followed by the recital of *jula-juli*, interspersed with jokes, storytelling, and a closing segment. The recent structure has developed to suit market tastes. The opening part is carried out with the Garuda bird game, followed by *remong*, a contest of artist performances, jokes, stories, and closing.

This process shows that serious measures have been taken in both the management and

the performance of *ludruk* in order to satisfy market demands (Heras & Tàbara, 2014). *Ludruk* leaders and players, along with the market, grow a collective awareness, echoing that adaptation to public tastes is inevitable. This adaptability highlights the ability of traditional *ludruk* performers to sustain their existence by balancing the preservation of artistic identity, rooted in the ideological foundations of *ludruk* arts, with the orientation to reach economic gains. This harmony helps to ascertain that *ludruk* not only keeps its cultural essence intact but also supports the economic orientation of its performers. These findings are also captured in the interview with Mama Fatimah, a *makyong* actor and guru in Malaysia.

Researcher: So, what are the stages of a *makyong* performance?
 Mama Fatimah: It's flexible, depending on the request. Some request shorter performances, while others prefer longer ones.
 Researcher: How long is a single act typically performed? From after *Isya* ' until *Subuh* (the early morning prayer in Islam, which is performed before dawn)?
 Mama Fatimah: No, the maximum is two and a half hours. In the past, it was longer—from *Isya* ' until midnight, followed by dancing afterward.
 Researcher: The dancing would last until *Subuh*?
 Mama Fatimah: No.

- Researcher: Because in Java, performances sometimes last until *Subuh*.
- Mama Fatimah: Performances that last until early morning are *main teri*, usually for healing rituals.
- Researcher: So that's a different type of performance from *makyong*?
- Mama Fatimah: It's still *makyong*.
- Researcher: So, there's a special type of *makyong* depending on its purpose?
- Researcher: Does that mean what you're teaching here is performance-based *makyong*, not the healing one?
- Mama Fatimah: No, it's not possible. The healing *makyong* is used to treat astral-related issues. Usually, *main teri* will possess the sick person to identify the illness.
- Researcher: Is *makyong* performance still popular with audiences today?
- Mama Fatimah: Very popular. From the 2000s until now, it's still thriving. Every year, new performance productions come out. There's always a show.⁴

art of *makyong* has evolved in response to the needs and expectations of its collective society. One of the pivotal indications is how the leaders of *makyong* initiate the alignment with market demands to fit contemporary expectations and constraints, ensuring their continued relevance in the modern cultural landscape. There are at least two things which correspond to this adaptation. First, regarding the duration of the performance, *makyong* originally began after the *Isya* ' prayer, continuing until midnight. The adaptation marks a shift to performances lasting only 2 to 3 hours each. In fact, Mama Fatimah firmly stated a maximum was capped at 2.5 hours. The term *Isya* ' indicates the time for Muslims to pray at around 8.30 p.m. daily. The other adaptation deals with the overall performance duration, which eventually affects the performance structure. This generally consists of songs, dances, and stories told in the form of traditional drama games.

These changes, encompassing both the management and the structure of performances, portray the measures to adapt the performances to market demands and keep them flourishing. Adaptability in managing *makyong* is determined by the ability to initiate and maintain the development of such a traditional art (Suharto, 2019; Tan & Shafii, 2021). The *makyong* traditional art also demonstrates identity transformation. Far from being outdated or inflexible, *makyong* challenges the commonly held belief that traditional arts are antiquated or intrinsically rigid.

In parallel with the transformation of *ludruk* performances, *makyong* has also undergone a transformation. The traditional

⁴ The interview with Mama Fatimah Abdullah, a practitioner and teacher of *makyong*, was conducted on 18 October 2024 in Kuala Lumpur.

This adaptation also distinguishes two models of *makyong* performance: *makyong* as a folk entertainment art and *makyong* as a medicinal practice, known as *makyong manteri*. According to Mama Fatimah, *makyong manteri* is the traditional art of *makyong* performed to treat individuals afflicted by disturbances from astral entities. Hence, this model involves prayers or mantras, which are absent from *ludruk* performances. *Ludruk* solely serves as an entertainment art form for the marginalised or working-class community, providing a platform to express and channel their anxieties through performances rich in humour and entertainment. Therefore, folk jokes or comedy are very popular with this group. The comedy or dialogues involved in *ludruk* stories may engage criticism and satire directed at the viewers or even powerful figures among them. This unique segment aims to reflect the lives of common people and is often performed during the *Jula-Juli* recital (Setiawan, 2021).

These findings document that, apart from the on-stage performance of *ludruk* and *makyong*, a significant tension exists between the ideological space of traditional art and the evolving demands of contemporary society (Wihendar et al., 2023). These traditional arts have to be coherent with realities, while simultaneously navigating the need to transform to align with collective societal awareness and market preferences. This transformation gradually opens up the dialogue and new space to satisfy the ever-evolving market demands. In consequence, the intersections

of the ideological foundations of traditional arts, the performers' agency, and the shifting market demands serve as the driving forces for performance transformation.

The theoretical contributions present a holistic perspective to the dynamics of existence and transformation of traditional arts—i.e., *ludruk* in Indonesia and *makyong* in Malaysia—under the backdrop of the dynamics of artistic ideology, performers, and market forces. Such theories have the potential to inform practical applications, particularly in strengthening, building, and enriching arts education curricula (Taufiq et al., 2024). This is especially relevant to the teaching of classical dramatic art, and performing art in general, at school and tertiary levels.

CONCLUSION

Grounded in the findings, the study highlights the existence, identity, and identity transformation of the traditional arts of *ludruk* in Indonesia and *makyong* in Malaysia, revealing similar phenomena and tendencies. First, the existence of these traditional arts is sustained through flexible management practices. Flexibility in the management of *ludruk* and *makyong* serves as a key principle, ensuring their continuity and adaptability. Second, regarding identity transformation, the structure of these performances is not rigid but rather dialogical, allowing for interaction with the collective society, which is composed of a dynamic market with evolving tastes. While certain elements, such as the repertoire of stories, remain unchanged in both *ludruk*

and *makyong*, a dialogical space emerges as a point of convergence between the ideological dimensions of traditional art, the performers, and the market representing the collective society's changing preferences.

This study's findings are specific to the traditional arts of *ludruk* and *makyong* while focusing on the contested space of performance. The findings address issues of existence and the interpretation of identity transformation within these traditional art forms, positioning them as dynamic entities that negotiate between tradition and contemporary societal demands.

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DISCLOSURE

The authors declare no conflict of interest.

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Navigating the Struggles: Challenges and Pressures Faced by New Secondary School Teachers in Malaysia

Wan Mohd Agil Mat Yamin and Lim Hooi Lian*

School of Educational Studies, Universiti Sains Malaysia, 11800 USM, Pulau Pinang, Malaysia

ABSTRACT

The teaching profession is considered one of the most challenging careers. Teachers, especially new teachers, are more exposed to challenges and pressures than experienced teachers. New teachers face various challenges and pressures at the beginning of their careers, which can lead some to leave the profession, particularly within the first five years of their teaching experience. Therefore, this qualitative study aims to identify the challenges and pressures faced by new secondary school teachers in the Malaysian education context. The study employed semi-structured interviews involving 12 new secondary school teachers. The thematic analysis findings revealed five challenges and pressures new secondary school teachers face: teaching and learning, workload, classroom management, relationships with senior teachers and parents, and challenges and pressures related to professionalism. The findings of this study can assist the Ministry of Education Malaysia, which is responsible for the continuous professional development of new teachers, in strengthening them to face the current challenges and demands in the teaching profession.

Keywords: Challenges, Malaysia, new secondary school teachers, pressure, qualitative study

INTRODUCTION

Teaching is widely recognised as one of the most challenging and complex careers globally, encompassing intellectual, emotional, and service-oriented dimensions (Mercer, 2020; Sikma, 2021). This complexity often translates into high-pressure environments for teachers (Mercer, 2020; Skaalvik & Skaalvik, 2018), particularly for those new to the profession. New teachers face significant challenges and obstacles when transitioning from teacher training to full-time teaching roles (Kutsyuruba et al., 2022). When unable to cope with these challenges, many may experience emotional stress, prompting a

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E-mail addresses:

wanmohdagil@gmail.com (Wan Mohd Agil Mat Yamin)

hllim@usm.my (Lim Hooi Lian)

*Corresponding author

substantial number to leave the profession—nearly half of teachers in many countries depart within the first five years of teaching (Räsänen et al., 2020; Ryan et al., 2017).

New teachers will be assigned to either primary or secondary schools. Still, studies (e.g., Kavita & Hassan, 2018; Kongcharoen et al., 2019) illustrate that secondary school teachers are more stressed than primary school teachers. Kongcharoen et al. (2019) conducted an international study, showing that secondary school teachers are more stressed than others due to the job's financial challenges and multiple responsibilities. Similarly, a domestic study by Kavita and Hassan (2018) identified seven key stress factors: relationships with parents and colleagues, workload, time constraints, student behaviour, workplace support, and lack of resources. According to their findings, the stress rates among secondary school teachers are higher than those among primary school teachers. They need to ensure that new secondary school teachers can now effectively deal with the challenges and pressures of the profession.

The complexities of the challenges and demands placed on new teachers are multifaceted (Gilbertson & Nicolaides, 2023; Larsen & Allen, 2021). Simultaneously, these teachers develop essential skills through classroom experiences (Larsen & Allen, 2021). New educators often confront various classroom challenges without the benefit of extensive prior experience, such as addressing challenging student behaviour, meeting diverse student needs, and creating engaging curricula (Damico et

al., 2018). Furthermore, new teachers are often expected to assume responsibilities similar to those of their more experienced colleagues, which can lead to elevated stress levels, emotional pressure, and burnout (Gratacós et al., 2021; Leroux, 2018). Accordingly, this study aims to identify the challenges and pressures faced by new teachers at the onset of their teaching careers.

LITERATURE REVIEW

Literature indicates that new teachers are highly vulnerable to various challenges and stressors (Chandran et al., 2022; Karlberg & Bezzina, 2022). Both international and local studies (e.g., Awang & Shaari, 2021; Saidin et al., 2020; Svajda-Hardy & Kwok, 2023; Tahir et al., 2025) have reported that new secondary school teachers struggle with multiple issues, including pedagogical practices and classroom management, workload challenges (Chandran et al., 2022; Flores, 2020; Hamdan et al., 2024; Saidin et al., 2020), insufficient support from colleagues and administrators (Flores, 2020; Macalister, 2023; Saidin et al., 2020), disruptive student behaviours (Khalid & Husnin, 2019; Shah et al., 2022; Zahr, 2022), and difficulties in establishing relationships with students, parents, and staff (Abd Karim & Nordin, 2022; Marudadorai et al., 2023; Stewart & Jansky, 2022).

While Flores (2020) emphasises that the lack of administrative support significantly contributes to teacher stress, this finding may require reassessment within the Malaysian context, where a hierarchical work culture

can lead employees to be more passive and hesitant in voicing their needs or concerns, thereby limiting their capacity to receive adequate support (Yee et al., 2018). Consequently, these various demands and issues contribute to elevated levels of stress and burnout, resulting in negative emotions and teacher attrition (Burger, Bellhäuser, & Imhof, 2021). In Malaysia, studies on mental health and well-being among secondary school teachers reveal that those in their twenties exhibit more psychological symptoms than their older peers (Pau et al., 2022), indicating that new secondary school teachers may be at a heightened risk of experiencing psychological stress.

Most studies on the challenges and pressures faced by new teachers have been conducted in Western educational contexts. However, the cultural norms and school systems in Malaysia differ significantly from those in Western educational systems, which are characterised by centralised authority and a hierarchical structure (Bush & Ng, 2019). In contrast, Western educational systems tend to be more decentralised (Erss, 2023). While several challenges, such as workload, classroom management, and student discipline, are universal issues, how these challenges manifest and are confronted by new teachers often depends on the local educational system and culture. This study aligns with the statement by Kutsyuruba et al. (2017), which emphasises that contextual cultural factors influence the challenges faced by new teachers. In Malaysia, this reality is particularly complex due to its socio-cultural diversity and the multi-stream

education system, which includes National Secondary School (*Sekolah Menengah Kebangsaan* – SMK), National-type Secondary School (*Sekolah Menengah Jenis Kebangsaan* – SMJK), Fully Residential Schools (*Sekolah Berasrama Penuh* – SBP), and Religious Secondary Schools (*Sekolah Menengah Kebangsaan Agama* – SMKA). Each type of school embodies distinct societal values and cultures that can create a complex environment for new teachers, differing from those found in Western contexts.

In the Malaysian context, strong cultural values such as respect for authority and adherence to hierarchical structures can exacerbate the pressures faced by new teachers when interacting with more senior colleagues or school administrators. This is further compounded by the centralised nature of the Malaysian education system, where policies are often formulated at the federal level and uniformly implemented across all schools. Such an approach limits the autonomy of school leaders and teachers (Bush & Ng, 2019). Additionally, the multi-stream education system in Malaysia, which educates students in separate linguistic and cultural environments, raises concerns regarding proficiency and mastery of the Malay language among students (Lick et al., 2019). This presents unique challenges in communication and pedagogy for new teachers. Consequently, these cultural values and the multi-stream education system uniquely shape work-related stress in ways that differ from Western countries.

Theoretical Framework

This study employs Bronfenbrenner's Ecological Systems Theory, further developed into the Bioecological Model (2005), as the primary theoretical framework to understand the challenges and pressures faced by new teachers within the Malaysian educational context. This theory elucidates that individual development occurs through the interactions between individuals and their contextual environments. Bronfenbrenner (2005) classifies these social contexts into five systems: the microsystem, mesosystem, exosystem, macrosystem, and chronosystem.

1. Microsystem refers to the immediate environment in which an individual interacts directly, such as relationships within the family, peers, teachers, and classrooms. The challenges or stressors faced by new teachers arise from direct interactions with students, colleagues, and classroom management.
2. The mesosystem involves the connections between different microsystems, such as interactions with other teachers, parents, and school administrators. For instance, conflicts between new teachers and their peers or parents can generate additional stress for these educators.
3. The exosystem refers to external environments in which individuals do not engage directly but which nonetheless influence the development of new teachers. For example, decisions made by school authorities or district education offices regarding

policy implementation and teaching assignments can significantly impact their well-being.

4. The macrosystem encompasses the broader social, cultural, and political contexts that shape all other systems. In the Malaysian context, cultural values such as respect for authority, societal expectations of teacher professionalism, and national education policies can create pressures for new teachers.
5. The chronosystem pertains to individual development shaped by life transitions, historical events, and periods. Historical events, such as the COVID-19 pandemic, have accelerated changes in pedagogy, particularly in the adoption of technology and online teaching methods. These changes present challenges for new teachers who must adapt to both their profession and the evolving technological landscape.

Furthermore, this study utilises the Four Dimensions of Teacher Resilience Framework proposed by Mansfield et al. (2012) as a theoretical foundation to explain the strategies employed by new teachers in responding to the pressures they face. Mansfield et al. (2012) classified the protective factors of new teacher resilience into four dimensions: professional, emotional, motivational, and social dimensions. The professional resilience dimension encompasses aspects related to new teachers' instructional practices, such as preparing lessons, being organised

in tasks, employing practical teaching skills, engaging in self-reflection, and demonstrating flexibility and adaptability in new situations. The emotional resilience dimension characterises a new teacher's ability to bounce back from challenges, cope with job-related stress and demands, maintain a sense of humor, manage emotions effectively, prioritise self-care, and find joy in teaching. The motivational resilience dimension encompasses factors related to new teachers' motivation, including possessing an optimistic attitude, demonstrating a deep commitment, focusing on learning and improvement, and exhibiting self-confidence and a belief in their abilities. Lastly, the social resilience dimension encompasses aspects related to social interactions in the work environment, including possessing interpersonal and communication skills, building networks of support and relationships, seeking assistance, and receiving guidance in problem-solving.

Mansfield et al. (2012) emphasise that the interaction between personal factors and contextual factors is crucial in building resilience among new teachers. The professional, emotional, and motivational dimensions serve as protective factors for personal resilience, referring to the characteristics and abilities of individuals that enable new teachers to face challenges and pressures within their profession. Meanwhile, the social dimension acts as a contextual protective factor, referring to external support systems that provide the necessary social and professional support

for teachers in managing the demands of the teaching profession.

Therefore, this study aims not only to confirm the challenges and pressures identified in previous literature but also to explore how the unique sociocultural context in Malaysia influences these challenges. Consequently, this study raises the research question: What challenges and pressures do new secondary school teachers in Malaysia face? The findings of this study will assist the Ministry of Education Malaysia in evaluating the design of professional development training for new teachers and in implementing targeted interventions to support those struggling with stress during the early stages of their teaching careers.

METHODOLOGY

Research Design, Data Collection Methods, and Sampling Techniques

This study employs a qualitative research design to gain a deeper understanding of the life experiences of new secondary school teachers (Kvale & Brinkmann, 2015). This approach facilitates rich, contextual insights by enabling participants to share challenges and pressures based on their experiences. Semi-structured face-to-face interviews were conducted with 12 new secondary school teachers from four main types of secondary schools in Malaysia: National Secondary School (*Sekolah Menengah Kebangsaan – SMK*), National-type Secondary School (*Sekolah Menengah Jenis Kebangsaan – SMJK*), Fully Residential Schools (*Sekolah Berasrama Penuh – SBP*), and Religious Secondary Schools (*Sekolah*

Menengah Kebangsaan Agama – SMKA) in the Klang Valley. The Klang Valley was selected based on findings from Othman and Sivasubramaniam (2019), which revealed high rates of depressive symptoms (43.0%), anxiety (68.0%), and stress (32.3%) among teachers in this region. Furthermore, the Klang Valley provides an educational context that reflects the diversity of the national education system, encompassing all four main types of secondary schools mentioned. This diversity enables the observation of various forms of challenges and pressures faced by new teachers.

Purposive sampling was employed to select teachers who would provide valuable insights. The criteria for participation included: (1) new secondary school teachers appointed by the Ministry of Education Malaysia with less than three years of service (Ministry of Education Malaysia, 2015), (2) representatives from each school type, and (3) teachers who were willing to participate in the study. Before conducting the interviews, informed consent was obtained from participants to ensure compliance with ethical standards and to safeguard both parties against potential legal issues. Approval was also secured from the Planning and Research Policy Division (BPPDP) of the Ministry of Education Malaysia and the State Education Department.

Semi-structured Interview Questions

This study employs a semi-structured interview protocol as a method of data collection. A pilot study was conducted to

test the semi-structured interview questions, involving three respondents, before finalizing the questions to obtain important feedback regarding responses, format, and duration. This study employed probing techniques, which involve asking follow-up questions to participants when answers are unclear or incomplete and require more specific or in-depth information (Bougie & Sekaran, 2019). The interview protocol questions are as follows:

1. Could you introduce your background? For example, your educational background, the subjects you teach, and the duration of your teaching experience.
2. Can you describe your daily life as a new teacher? For instance, the number of working hours each day and the frequency of attending school on weekends within a month?
3. What challenges and pressures do you face as a new teacher at the school?

Data Analysis, Triangulation of Data Sources, and Reliability of Qualitative Research

All recorded interviews have been transcribed (Tracy, 2020). As suggested by Cohen, Manion, and Morrison (2018), the transcription process involved carefully listening to the recorded interviews and transcribing them. The interview transcripts were analysed using a thematic analysis guided by the research questions. A manual coding process was conducted to identify emerging themes and subthemes.

Triangulation refers to the analytical methods used during fieldwork and in formal analysis to validate findings by comparing evidence from various sources (Yin, 2016). Bougie and Sekaran (2019) identified four types of triangulation: (i) data source triangulation, (ii) researcher triangulation, (iii) theory triangulation, and (iv) methodology triangulation. Data source triangulation involves collecting data from various individuals and groups to obtain diverse perspectives and validate information (Carter et al., 2014). Therefore, this study conducted triangulation through different data sources by conducting semi-structured interviews with new secondary school teachers from four main types of secondary schools in Malaysia, namely National Secondary School (*Sekolah Menengah Kebangsaan – SMK*), National-type Secondary School (*Sekolah Menengah Jenis Kebangsaan – SMJK*), Fully Residential Schools (*Sekolah Berasrama Penuh – SBP*), and Religious Secondary Schools (*Sekolah Menengah Kebangsaan Agama – SMKA*) in the Klang Valley, Malaysia.

This study employed several methods to enhance the validity and reliability of the research. Among them, this study ensured the accuracy of the interview transcripts by reviewing the audio recordings while reading the transcripts. Furthermore, member checking was also conducted by sending the interview transcripts for review and subsequent confirmation by the participants to ensure the accuracy of the interview transcripts in relation to their experiences

(Birt et al., 2016). Additionally, reliability was maintained during data analysis by reviewing and refining the formed themes to ensure consistency, avoiding overlap or coincidence.

To ensure the reliability of the research findings, this study also utilised Cohen's Kappa analysis to measure the agreement among raters for the themes and subthemes developed in this study (Wilhelm et al., 2018). McHugh (2012) explains that this analysis can also determine the extent to which the chosen unit of analysis accurately describes the themes that emerged from the interviews. In this study, the accuracy and validity of the constructed themes and subthemes were reviewed and validated by four experts, comprising three experts in the fields of psychology and counseling, and one expert in the field of education, as shown in Table 1.

This study employs Cohen's Kappa analysis to ascertain the reliability value among expert panels regarding the themes identified from the interviews, ensuring that the findings are accurate and credible. The interview analysis revealed five themes and 17 subthemes from the qualitative data. The Cohen's Kappa formula utilised for calculating the agreement value among the expert panels is as follows:

$$K = \frac{\text{Pr}(a) - \text{Pr}(e)}{1 - \text{Pr}(e)} \quad [1]$$

$\text{Pr}(a)$ represents the relative agreement observed among raters, and $\text{Pr}(e)$ denotes the probability of chance agreement. This probability is calculated using the observed

Table 1

List of experts involved in verifying the accuracy of themes and subthemes

Expert	Position/ Qualification	Area of Expertise	Organization	Years of Experience
1	Senior Lecturer	Counseling Psychology	Sultan Idris Education University	20
2	Lecturer	Education	Teacher Education Institute of Technical Education	19
3	District Education Counselor	Counseling Psychology	Klang District Education Office	23
4	School Counsellor	Guidance and Counseling	Taman Tasik National Secondary School	15

data for each rater's chance of randomly assigning each category. A perfect agreement among assessors would yield a value of $k=1$, while a lack of agreement beyond random chance would result in a value of $k=0$.

This study uses Cohen's Kappa agreement level indicators taken from Bernard and Ryan (2010), with the following interpretations: values below 0.00 indicate very weak agreement, 0.00–0.20 indicates weak agreement, 0.21–0.40 indicates moderately weak agreement, 0.41–0.60

denotes moderate agreement, 0.61–0.80 represents good agreement, and values between 0.81 and 1.00 indicate excellent agreement. Table 2 presents the results of Cohen's Kappa values from the assessments of four experts. The analysis revealed that all themes and subthemes exceeded a Kappa value of 0.81, indicative of an excellent level of agreement. Thus, Cohen's Kappa values convincingly demonstrate that the experts concur on the themes and subthemes identified in this study.

Table 2

Cohen's Kappa value from experts

Theme & Subtheme	Expert 1	Expert 2	Expert 3	Expert 4	Rating
Challenges and pressures of teaching and learning:					
1. Diversity of students' learning levels	1	1	1	1	1
2. Teaching non-option subjects	1	1	1	1	1
3. Integration of technology in teaching and learning (T&L)	1	1	1	1	1
4. Language barriers in learning	1	1	1	1	1
5. Limited teaching materials	1	0.93	1	1	0.98
Challenges and workload pressure:					
1. Clerical tasks workload	1	1	1	1	1
2. Excessive workload	1	1	1	1	1
3. Various side tasks	1	1	1	1	1
4. Work-life balance	1	1	1	1	1

Table 2 (continue)

Theme & Subtheme	Expert 1	Expert 2	Expert 3	Expert 4	Rating
Challenges and pressures of classroom management:					
1. Student behaviour issues	1	1	1	1	1
2. Overcrowded classrooms	1	1	1	1	1
3. Lack of student engagement	1	1	1	1	1
Challenges and pressures in relationships with senior teachers and parents:					
1. Establishing and maintaining a good relationship with senior teachers	1	1	1	1	1
2. Establishing and maintaining a good relationship with parents	1	1	1	1	1
3. Negative attitudes of parents	1	1	1	1	1
Challenges and pressures of professionalism:					
1. Teacher competency	1	1	1	1	1
2. Balance between theoretical knowledge and actual practical experience in schools	1	1	1	1	1

FINDINGS

Demographic Profile of Study Participants

Table 3 presents the demographic profile of the twelve new secondary school teachers who participated in this study. Five of the participants are male, and seven are

female, with three teachers from each type of secondary school. In terms of teaching experience, the participants include two teachers with less than one year of experience, three teachers with one to two years of experience, and seven teachers with two to three years of experience.

Table 3
Demographic profile of study participants

Demographic Profile	Number of Study Participants (N)
Gender	
Male	5
Female	7
Type of Secondary School	
National Secondary School (SMK)	3
National Type Secondary School (SMJK)	3
Entire Boarding School (SBP)	3
Religious National Secondary School (SMKA)	3
Teaching Experience / Years of Service	
≤ 1 year	2
1 – 2 years	3
2 – 3 years	7

Challenges and Pressures Faced by New Secondary School Teachers

Thematic analysis identified five key challenges and pressures new secondary school teachers encountered, summarised in Table 4. These challenges fall under the following themes: (i) challenges and pressures of teaching and learning, (ii) challenges and pressures of workload, (iii) challenges and pressures of classroom management, (iv) challenges and pressures of relationships with senior teachers and parents, and (v) challenges and pressures of professionalism.

Challenges and Pressures of Teaching and Learning: Five Challenges and Pressures

The challenges and pressures most frequently reported by new teachers from

four types of secondary schools are related to teaching and learning. These challenges and pressures have been discussed by 10 new teachers (P1, P2, P3, P4, P5, P6, P7, P8, P10, and P12) who consider teaching and learning the primary challenges and pressures. In facing these challenges and pressures of teaching and learning, there are five specific challenges and pressures they must navigate, namely (i) the diversity of student learning levels, (ii) teaching non-elective subjects, (iii) integrating technology into teaching and learning (T&L), (iv) language barriers in the learning process, and (v) limited teaching materials. Table 5 presents excerpts from interviews with participants in this study regarding the challenges and pressures they face in teaching and learning.

Table 4
Summary of the five challenges and pressures faced by new secondary school teachers (themes and subthemes)

Challenges and Pressures (Theme)	Subthemes
Challenges and pressures of teaching and learning	1. Diversity of student learning levels 2. Teaching non-option subjects 3. Integration of technology in teaching and learning 4. Language barriers in learning mediation 5. Limited teaching materials
Challenges and pressures of the workload	1. Clerical tasks workload 2. Excessive workload 3. Various side tasks 4. Work-life balance
Challenges and pressures of classroom management	1. Student behavioural issues 2. Overcrowded classes 3. Lack of student participation
Challenges and pressures of relationships with senior teachers and parents	1. Establishing and maintaining good relationships with senior teachers 2. Establishing and maintaining good relationships with parents 3. Negative attitudes of parents
Challenges and pressures of professionalism	1. Teacher competency 2. Balance between theoretical knowledge and actual practical experience in school

Table 5

Challenges and pressures of teaching and learning: Sub-themes and interview excerpts

Subthemes	Interview Excerpts
Diversity of student learning levels	P1: "For me, the challenge I face in this boarding school is, umm... in terms of the abilities and learning levels of the students. In Form 2, I teach classes 2A and 2C, which means the top and bottom classes. So, in that regard, it is a challenge for me to overcome when my students in class A are quite fast. Class C is slower." P2: "When there are students who are too fast, there are also students who are too slow in the same class, which means we have to restructure our teaching methods. We need to consider the students' levels. Okay, that is the challenge I face at school." P12: "This school is excellent. However, there are still students who are somewhat less outstanding in their learning and are placed in the same class as other students who are quite outstanding. So, my challenge is ensuring those students understand the lessons I teach."
Teaching non-elective subjects	P3: "I need to teach subjects not in my field. So my challenge is when I get this geography subject, I have to study that subject again because we need to understand the facts, right?" P5: "The challenge and pressure for me is that the subjects I teach are not the same as the options I studied in university. For example, I hold a Bachelor's degree in Home Science Education, but I was assigned to a school that does not offer that option. So I was assigned various subjects, starting with History, then switching to Design and Technology (RBT), Geography, and Physical Education and Health (PJK)." P10: "The pressure comes from teaching subjects that are not my option. As I mentioned earlier, my major is Shariah, but I am required to teach subjects unrelated to Shariah. For example, Malay Language (BM), I do not specialize in BM, so that is a challenge, and we accept that challenge. However, we become afraid when we think we might teach incorrectly."
Integration of technology in teaching and learning	P4: "The challenges during our school days were heavily reliant on online tools because of the COVID period. Ermmmm, on that part, I feel we need to be more knowledgeable in technology and multimedia to attract students; we want them to pay attention while I am teaching." P6: "The challenge from a technological perspective is that this school uses Microsoft Showcase School as a medium. Therefore, we need to align our approach; it is not just about using books; we are not limited to books; we need to utilize technology." P7: "The challenge of incorporating technology into my teaching methods. Because now, students' attention spans in class are short. After 5 or 10 minutes, they are not interested in what we have to offer them."
Language barriers in the learning process	P7: "The biggest challenge is language when communicating with the kids. Interacting with those students is difficult because some cannot speak Malay or English fluently. Not all students, but there are a few." P8: "This school has Chinese and Indian students, so there are communication difficulties. For example, some Chinese students here do not understand Malay and have little trouble communicating. They do not understand what we are saying if they are not interested in the teaching and learning sessions. They rely on their friends to explain things back to them."
Limited teaching materials	P1: "The challenge from the perspective of materials. I still contact my UIA (International Islamic University) classmates to share teaching materials." P2: "The challenge in terms of teaching materials. As new teachers, we have not yet explored these resources extensively. We usually get reference materials from the senior teachers; we often ask them to obtain reference materials."

**Challenges and Workload Pressure:
Four Challenges and Pressures**

The second challenge and pressure new secondary school teachers face in their teaching careers is the challenge and pressure of workload. In facing this challenge and pressure of workload, there are four specific challenges and pressures that they encounter, such as (i) workload of clerical

tasks, (ii) excessive workload, (iii) various side tasks, and (iv) work-life balance. Nine new teachers (P1, P2, P3, P4, P5, P7, P9, P10, and P12) discussed the challenges and pressures of their workload. Table 6 presents example excerpts from interviews with participants in this study regarding the challenges and pressures associated with their workload.

Table 6
Challenges and workload pressure: Subtheme and interview excerpts

Subthemes	Interview Excerpts
The workload of clerical tasks	P5: "So being a teacher is not just about teaching, but there are many other tasks like clerical work, creating files. Teachers must do much clerical work; it is mandatory for teachers, which presents the challenge and pressure to adapt." P7: "Administrative tasks. As a class teacher or homeroom teacher, I am responsible for updating student and parent data paperwork. We update this information periodically, and within 6 months, we need to update it 2, 3, 4, or 5 times. If parents change jobs, we need to update student information." P9: "When we are educational officers, we have to manage everything related to education, not just teaching. So we have clerical tasks. That is one of the biggest pressures of being in school right now." P12: "The career pressure aside from being a teacher. It means the clerical work is more than the work of teaching. I am also a class teacher, so if I am a class teacher, I have to collect payment from students, write receipts, and communicate a lot with parents about fees."
Excessive workload	P3: "My work is too much... too much to the point that sometimes we do not have time to eat. It is like we are bombarded with work. Once one task is completed, another task arises. That can also be a source of stress for me, right?" P4: "The tasks at school are not just about teaching; we have many other responsibilities. For example, we must be involved in other management aspects such as documentation, curriculum, and discipline. All of this is where the teachers play a role." P9: "The challenge of work pressure is overwhelming. We must look after the welfare of our students. Besides that, we must manage paperwork for programs and certain files, subject coordinator files, class teacher files, etc."
Various side tasks	P1: "Teachers have side tasks too. For example, I am a health teacher and at the same time, I am part of the Islamic Education committee. Within the Islamic Education Committee, we have programs. Then, as a health teacher, I also work with PBSM (the Red Crescent Society). This means many things need to be done." P2: "These side tasks can be quite disruptive for new teachers because we are just starting to organize each of our classes, manage our schedules, and prepare our materials. Side tasks, such as documentation, can be quite burdensome. For instance, as a warden, we stay here (at the school) and are here 24 hours on the weekends."

Table 6 (continue)

Subthemes	Interview Excerpts
Work-life balance	P3: "Sometimes, at home, I still have to come to school on weekends. Even at night, I sometimes get disturbed because of the programs I have to attend. The programs are due to the boarding facilities, you see. That is also one of the pressures, I must say." P10: "This school has night classes for the KKQ subject (Al-Quran Skills Class). My child is still small and often hospitalized; my child is not well. So, when there are night classes, I have to attend, which adds much stress because I have to leave my children behind, and my husband has to take care of them. But, yes, almost every night, if not every night, well... three times a week."

Challenges and Pressures of Classroom Management: Three Challenges and Pressures

The third challenge and pressure faced by new secondary school teachers is the challenge and pressure of classroom management. In confronting these challenges and pressures of classroom management, they endure three challenges: (i) student behaviour issues,

(ii) overcrowded classes, and (iii) lack of student engagement. Six new teachers have discussed these challenges and pressures (P3, P6, P7, P8, P9, and P12). Table 7 presents examples of interview excerpts from participants in this study, highlighting the challenges and pressures associated with classroom management.

Table 7
Challenges and pressures of classroom management: Subthemes and interview excerpts

Subthemes	Interview Excerpt
Student behaviour issues	P3: "What I can say is that my students lack manners. When speaking to teachers, their manners are like talking to a peer; when we speak, they protest. That is also a challenge that I need to tackle." P9: "The biggest challenge I see is the students' behaviour. Their behaviour is something we really cannot handle."
Overcrowded classes	P6: "The number of students is also larger. So, classroom management becomes quite difficult to control. When combining two classes, it can become overcrowded, with some having more than 30 students. So, controlling it is hard." P7: "The number of students in a single class is indeed large, sometimes reaching up to 40 students in one class. My biggest challenge is ensuring all the kids understand what I teach."
Lack of student engagement	P8: "So, when students do not want to learn, we feel like they are just playing around, which makes us stressed in class. It makes us feel like we want to leave the classroom." P12: "The challenge and pressure of how to deal with students who lack motivation to learn. It means some students seem less motivated and do not have the initiative to study seriously."

Challenges and Pressures in Relationships with Senior Teachers and Parents: Three Challenges and Pressures

In addition to the challenges and pressures of classroom management, new secondary school teachers also face challenges and pressures related to their relationships with senior teachers and parents. Table 8 shows that there are three challenges and pressures in relationship management: (i) establishing and maintaining good relationships with senior teachers, (ii) establishing and maintaining good relationships with parents, and (iii) negative attitudes from parents. These challenges and pressures

have been explained by six new teachers (P1, P3, P4, P6, P9, and P11), who view their relationships with senior teachers and parents as challenges and pressures they must navigate in their teaching careers.

Challenges and Pressures of Professionalism: Two Challenges and Pressures

The fifth challenge and pressure faced by new secondary school teachers is the challenge and pressure of professionalism. As shown in Table 9, this study summarizes that they have endured challenges and pressures regarding (i) teacher competency and (ii) the balance between theoretical

Table 8
Challenges and pressures in relationships with senior teachers and parents: Subthemes and interview excerpts

Subthemes	Interview Excerpts
Establishing and maintaining good relationships with senior teachers	P3: "It is normal for friends to talk behind our backs; I have also heard that. There must be some who are dissatisfied with us." P4: "Another challenge for me is building relationships with the existing teachers, the experienced teachers at the school. They say that when we enter someone else's territory, we must adapt; we cannot just bring our ways." P11: "Seniority, like when we are new... There is a gap between seniors and juniors. So that is a challenge for us. That challenge still exists even now."
Establishing and maintaining good relationships with parents	P6: "Regarding guardians here (in this school), some are more educated. They have their ways, so we need to be educated as well. Some of them, even if we make a mistake, say we are letting their child down." P11: "Challenges from outside, for example, parents themselves. They expect our school to always be the best or the highest. We need to communicate a lot with parents. So when we talk with the parents, we understand their expectations and can sometimes explain that their expectations may be somewhat inaccurate."
Negative attitudes of parents	P1: "Right now, we cannot use corporal punishment, so with such limitations, what other ways do we have to educate? As in this school, the exam results and students' rankings are posted in the canteen, and parents complain... it's embarrassing for my child. However, from another perspective, I think it builds character; it motivates the children to rise to the challenge. However, even when we do this, parents still question it." P9: "We cannot control the students too strictly because if we go overboard, parents will get angry with the teachers. So that is the pressure. A simple example is when we assign a lot of homework, and a student's parent calls us asking why we give so much homework; their child has no time at home."

Table 9

Challenges and pressures of professionalism: Subthemes and interview excerpts

Subthemes	Interview Excerpts
Teacher competence	P4: "We need to know a lot about technology and multimedia. In that regard, it is challenging to keep up, especially in the 21st century, where students often know more than we do. We must learn and always feel like we are advancing beyond them." P5: "Because I teach at a High-Performance School, my skills need to be enhanced, whether it is communication skills with students or skills in teaching and learning, because the level of the students here is high." P9: "In class, when we teach, sometimes something we tell the students is more advanced than what the teacher knows. So that puts pressure on us because we need to learn more than what our students know, especially on current issues." P11: "This school has selected students, so for me, that is pressure. In class, we must be prepared because students will ask questions, and they may pose out-of-the-box or related questions that are not covered in the syllabus. So we have to study in advance."
The balance between theoretical knowledge and practical application in schools	P4: "We come to school not just to teach; we need to understand that there are other management tasks we have to handle. So for me, challenges like that are real because they showed us how things work during our time in university, but we did not know when to apply that in real life." P7: "It is a different scenario from what we were exposed to in university, where we tried to create lesson plans (RPH) using our friends as students. At that time, it seemed easy because our objectives could be achieved; however, it is different when we apply that to a real-world school setting. On campus, objectives are often met, but when we come to school, achieving just one objective is already a big deal."

knowledge and actual practical experience in schools. This challenge and pressure of professionalism have been discussed by five new teachers (P4, P5, P7, P9, and P11) as one of the challenges and pressures they need to overcome.

DISCUSSION

The study finds that when new secondary school teachers in Malaysia start teaching is problematic and puts them under pressure. New secondary school teachers face various challenges in their first years of teaching. Karlberg and Bezzina (2022) and Ngang et al. (2014) discovered that these freshmen lack experience in the actual teaching environment. New secondary school

teachers in Malaysia face five challenges and pressures: Five challenges: challenges and pressures due to (i) teaching and learning, (ii) workload, (iii) classroom management, (iv) senior teachers and parents' relationships, and (v) professionalism.

All five challenges can be analysed through Bronfenbrenner's Bioecological Model (2005), which emphasises the influence of various layers of social systems on an individual's development, specifically that of new teachers. The challenges of teaching and learning, as well as classroom management, can be associated with the microsystem, which represents the environment closest to the teacher, such as students and the classroom

context. Conversely, challenges related to workload, including various ancillary tasks and documentation, are linked to the exosystem, which encompasses the decisions made by school administration that can significantly impact their well-being. Additionally, challenges concerning relationships with senior teachers and parents fall within the mesosystem, referring to the interactions between two microsystems. In this regard, tensions or a lack of effective communication between new teachers and their senior colleagues or parents can hinder the adjustment process within the profession. Lastly, challenges related to professionalism, such as pressures associated with teacher competence, can be linked to the macrosystem, which denotes the value systems and cultural frameworks underpinning the educational structure. In the Malaysian context, the cultural values of society that place high expectations on teacher professionalism create additional stress for new educators.

The primary challenge and pressures facing new secondary school teachers in Malaysia are related to teaching and learning. Some of these challenges to teaching and learning that constitute pressures to T&L include (i) diversity of students' learning levels such as a single teaching approach may not effectively reach all students, (ii) teaching non-elective subjects such as new teachers are assigned to teach subjects that students are required to take, such as mathematics or science, rather than elective classes they might prefer, (iii) adopting technology in teaching and learning such

as the integration of technology in the classroom especially for new teachers who may not be as familiar with digital tools or resources, (iv) language barrier in the learning stages such as a new teacher may have students who are new to the language and struggle to understand instructions or engage in discussions, and (v) paucity of teaching materials such as limited access to teaching materials can restrict a teacher's ability to deliver practical and engaging lessons, impacting student learning.

In this study, one of the challenges new teachers face in a single classroom is that students can learn at a wide range of levels. Three participants (P1, P2, and P12) who teach at fully residential schools and cluster schools of excellence experienced challenges when delivering instruction because learners do not learn at the same level. This is particularly challenging for new teachers as they learn their pedagogical skills. The study by Al-Naimi et al. (2020) reveals that new teachers in Qatar struggle to manage students' differences because of a lack of teaching experience. In this regard, the study found that resilient teachers employ various teaching strategies to address diverse challenges in their teaching (Mansfield et al., 2012; Mat Yamin & Lian, 2025; Shirazizadeh & Abbaszadeh, 2023).

New secondary school teachers find themselves under pressure to teach non-elective subjects. The problem arises when they are tasked with teaching areas in which they are not specialised. A similar issue of having teachers taught to teach subjects that are not their electives is also

a familiar issue in Malaysia (Ibrahim & Mohamed, 2021). The issue of teachers being assigned to teach non-option subjects remains prevalent due to placements that do not align with their subject specialisations (Dareng et al., 2024). In this regard, school administrators assign non-option teachers to specific subjects without considering their qualifications and expertise. This case aims to train new teachers in taking on responsibilities, specifically in acquiring content knowledge. According to Ngang et al. (2014), new teachers often struggle with subject content knowledge because they are frequently assigned to teach subjects that are not their areas of expertise.

Also, new secondary school teachers face challenges and pressures when integrating technology into teaching and learning. Three participants, P4, P6, and P7, reported facing challenges using technology in their teaching. Chandran et al. (2022) also discovered that the techniques of new teachers using technology for instruction are difficult. New teachers also reported language barriers in the learning process. Two participants, P7 and P8, who are currently teaching at National Type Secondary School (SMJK), mentioned that they found it difficult when some students were not proficient in the medium of instruction, either Malay or English. This finding is consistent with the results reported by Sali and Kecik (2018), who noted that the new teachers in their study encountered difficulties with language instruction due to the students' lower language proficiency levels. New teachers also have issues with

limited teaching materials. Two participants (P1 and P2) indicated that creating teaching materials is complex, as it requires obtaining reference materials from other sources for instructional purposes. New teachers are hindered in delivering effective instruction when there is a lack of adequate teaching materials and equipment (Sali & Kecik, 2018).

However, the second challenge and pressure that new secondary school teachers face is workload. Workload aspects comprise (i) clerical workload where the requirement for teachers to handle extensive documentation highlights a lack of administrative support, (ii) undesirable overload such as the expectation for teachers to participate in extracurricular activities, which can stem from a school culture that undervalues teachers' well-being, (iii) diverse ancillary assignments which can be caused by insufficient funding or poor resource distribution within schools, and (iv) work-life balance such as where teachers struggle to balance their teaching tasks with family responsibilities. Four participants (P5, P7, P9, and P12) reported feeling stressed while working on clerical tasks, including preparing paperwork, updating student data, and collecting fees. However, previous studies have reported that teachers experience stress comparable to that associated with clerical duties, due to their traditional teaching routines (Tsubono & Mitoku, 2023). Moreover, three participants (P3, P4, and P9) indicated high workloads. A spokesperson said they are often asked to take on additional roles

on top of their existing workload, making it very challenging. In this regard, heavy workload is considered one of the common reasons that induce new teachers to leave the profession (Perryman & Calvert, 2020). They also indicate that P1 and P2, the new teachers, experienced stress from extraneous assignments, including club supervision, documentation preparation, and school warden duties. Ariffin et al. (2021) found that teachers who undertake ancillary work beyond their capabilities experience more stress. New teachers also struggle with maintaining a work-life balance. Two participants (P3 and P10) reported feeling stressed because they had to give up personal time outside working hours to focus on work. Chaaban and Du (2017) found that teachers who are overwhelmed by workload and its impact on work-life balance struggle to fulfill their family commitments.

The third challenge and pressure on new secondary school teachers is classroom management. There are three challenges and pressures they must confront: (i) student behaviour issues such as students from challenging home environments may exhibit disruptive behaviour as a coping mechanism, making it essential for teachers to understand and address these underlying factors, (ii) overcrowded classrooms such as overcrowded classrooms present logistical challenges that affect not only teaching efficacy but also student learning outcomes. High teacher-to-student ratios can hinder individualised attention and support, and (iii) lack of student engagement, such as

the disconnect between curriculum design and student interests, leading to a lack of engagement. Teachers must find ways to make lessons relevant and engaging to foster better learning experiences.

In particular, Participants P3 and P9 reported experiencing difficulties in managing problematic student behaviour. It is concluded that misconduct, including disruptive behaviour, disrespect toward teachers, and classroom disruption, is the primary source of stress for teachers (Aldrup et al., 2018; Dicke et al., 2014). They also reported that overcrowded classrooms were a challenge to classroom management. P6 and P7 informed this study that having a large number of students in a class has impacted classroom control, making it difficult for P6 to ensure that students understand the instruction. Previous research supports these findings: class size is associated with stress related to classroom management (Finn, 2019), based on the assumption that larger class sizes lead to a more significant workload and increased opportunities for students to be disruptive. Additionally, new teachers reported that they are often subjected to considerable pressure without meaningful student engagement in learning. Previous studies have found that when students misbehave and disengage in class, new teachers tend to feel less effective in their teaching (Gunn & McRae, 2021).

The fourth challenge and pressure new secondary school teachers face is winning the standards from senior teachers and parents. This challenge and pressure include (i) building up and sustaining good

relationships with senior teachers, such as establishing collaborative and supportive relationships with experienced colleagues, which is essential. New teachers often rely on senior teachers for guidance and mentorship, and fostering these connections can enhance their professional development, (ii) building up and sustaining good relationships with parents, such as engaging effectively with parents in establishing trust and collaboration in enabling teachers to support students' academic and emotional needs, and (iii) parents' negative attitudes such as some parents preconceived notions of what teaching should look like or may be skeptical of new educational practices introduced by new teachers. Earlier, Thomas et al. (2019) found that relationships and support from colleagues have also been important for helping new teachers overcome the challenges of the first few years of teaching. Studies have shown that parent relationships and involvement can either facilitate or deteriorate the relationship between teachers and students (Aspfors & Bondas, 2013). In addition, teachers are likely to become stressed and burn out if they do not feel a level of support or respect from parents (Kutsyurba et al., 2019; Whalen et al., 2019).

Moreover, a new secondary school teacher's fifth challenge or pressure is professionalism. Teacher competency, encompassing the knowledge, skills, and professional attitudes that a teacher must possess to educate their students effectively, is one challenge this relates to. Secondly, balancing theoretical knowledge

with school realities, such as managing diverse classrooms, accommodating different learning styles, and dealing with administrative pressures, is another challenge. These four new teachers (P4, P5, P9, and P11) were poorly equipped and unversed in the skills required before being placed as teachers. This area is emphasised because it is crucial for new teachers' effectiveness in achieving student success (Kutsyurba et al., 2016). Furthermore, two teachers (P4 and P7) reported facing challenges and pressures when what they learned in college did not match the classroom realities. As Uhrich et al. (2023) and Al-Naimi et al. (2020) have found, studies have been conducted that demonstrate it is not easy for new teachers to bridge the gap between the knowledge they acquire through formal education and the skills required of them in the workplace.

CONCLUSION

This study examines the challenges and pressures faced by new secondary school teachers in Malaysia during their first three years of teaching. The findings indicate that new teachers encounter challenges and pressures from five aspects: (i) challenges and pressures of teaching and learning, (ii) challenges and pressures of workload, (iii) challenges and pressures of classroom management, (iv) challenges and pressures of relationships with senior teachers and parents, and (v) challenges and pressures of professionalism.

The intricate interplay between these challenges aligns with Bronfenbrenner's

Ecological Systems Theory, which emphasises how interactions within multiple contextual environments shape individual development. For instance, the microsystem reflects the immediate pressures new teachers face from their classrooms and colleagues, while the mesosystem emphasises the impact of relationships with parents and other teachers. These interactions create stressors that can hinder new teachers' adaptation to their roles. The exosystem sheds light on external influences such as district policies and administrative decisions, which can impede their professional growth. Furthermore, the macrosystem captures the broader cultural and societal pressures within the Malaysian educational context that shape teachers' experiences and expectations. The chronosystem highlights how significant events, such as the COVID-19 pandemic, have necessitated rapid adaptations in teaching practices, further complicating the challenges new teachers face.

In response to the pressures identified, targeted interventions are crucial. The Four Dimensions of Teacher Resilience Framework proposed by Mansfield et al. (2012) provides a valuable lens through which these strategies can be developed. To bolster new teachers' professional resilience, school administrators should implement mentoring programs as outlined in the New Teacher Development Program (PPGB) 2.0. This professional support not only addresses the practical skills needed for effective teaching but also fosters a sense of belonging and decreases feelings

of isolation. Regular monitoring, through the submission of mentee progress reports to the District Education Office (PPD), can further enhance the mentorship experience, ensuring that new teachers have continuous access to guidance.

To strengthen the pedagogical and emotional skills of new teachers, a series of micro-training sessions can be organised under the supervision of the Training Unit at the PPD. These training sessions will cover effective teaching strategies, classroom management, and self-empowerment workshops. This initiative aligns with the Malaysian Education Development Plan (PPPM) 2013-2025, specifically Shift 4: Transforming Teaching into a Preferred Profession, which aims to ensure that every teacher is a quality educator.

Like other studies, this study has certain limitations. The first limitation is the small number of study participants. Therefore, the findings may not be generalisable to a larger population. The second limitation is that the challenges and pressures can only be explored from the perspective of new secondary school teachers, as the study participants were limited to this group. The third limitation pertains to the potential for interviewer bias during the semi-structured interview process, as the interviewer's posing of questions may inadvertently influence the participants' responses. The fourth limitation is that this study was conducted solely in the Klang Valley, which may not adequately represent the cultural variations found in rural areas or other states in Malaysia.

This study suggests that future research could utilise survey studies to collect data on the challenges and pressures faced by new teachers by gathering a larger sample. Furthermore, future studies could also involve other perspectives, such as those of school administrators and experienced teachers. Additionally, future studies could consider employing a longitudinal study design to trace the evolving experiences of challenges and stress among new teachers throughout their early years of service.

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Museum Learning based on Local Wisdom for Strengthening National Identity: Case Study of Museums in Ternate, Indonesia

**Bagus Hary Prakoso^{1*}, Hastangka¹, Deni Sutrisna², Iwan Hermawan²,
Oerip Bramantyo Boedi², Hery Priswanto², and Nurachman Iriyanto³**

¹*Research Centre for Education, National Research and Innovation Agency (BRIN), Jakarta 12710, Indonesia*

²*Research Centre for Prehistoric and History Archaeology, National Research and Innovation Agency (BRIN), Jakarta 12710, Indonesia*

³*Department of History, Faculty of Cultural Sciences, Khairun University, Ternate 97719, Indonesia*

ABSTRACT

Museums serve as vital institutions for preserving cultural heritage and reinforcing national identity, yet their potential in integrating local wisdom remains underexplored. Existing research highlights the challenges museums face in maintaining cultural narratives amid globalisation but lacks a comprehensive approach to the Local Wisdom-based Museum Learning (LWBML). This study aims to (1) explore how museum learning based on local wisdom strengthens national identity and (2) develop a preliminary model of LWBML to enhance national identity in Indonesia. A qualitative research approach was employed, focussing on two case studies: Oranje Museum Fort (OMF) and Sultan of Ternate's Palace Museum (STPM) in Ternate, Indonesia. Data was collected through semi-structured interviews, observations, and document analysis, involving museum practitioners, visitors, and community stakeholders. Findings indicate that museum learning practices differ due to variations in the management structures and historical backgrounds. OMF, with its community-

driven approach, fosters contemporary engagement methods, while STPM, governed by the sultanate, emphasises traditional cultural transmission. These differences influence how museums integrate local wisdom into the national identity formation. This study introduces a preliminary LWBML model, identifying key components such as cultural leadership, community involvement, and historical narratives. The findings contribute to museum education discourse and provide practical recommendations for policymakers and cultural institutions to enhance heritage sites' roles in fostering national identity. By bridging

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E-mail addresses:

bagushprakoso@gmail.com (Bagus Hary Prakoso)

hastangka30@gmail.com (Hastangka)

sutrisnadeni@yahoo.com (Deni Sutrisna)

iwan1772@gmail.com (Iwan Hermawan)

oebboedi@gmail.com (Oerip Bramantyo Boedi)

priswanto.balark@gmail.com (Hery Priswanto)

mamancrb@yahoo.com (Nurachman Iriyanto)

*Corresponding author

traditional and modern museum practices, this research underscores the importance of integrating local wisdom into museum learning as a sustainable strategy for cultural preservation.

Keywords: Community involvement, cultural leadership, local wisdom, museum learning, national identity

INTRODUCTION

In the era of globalisation, cultural identities worldwide face increasing challenges due to rapid modernisation, global capitalism, and the pervasive influence of foreign cultures. Globalisation erodes traditional boundaries, creating a borderless world that threatens national sovereignty and fosters cultural homogenisation (Awdel et al., 2020; Mousseau, 2021). This phenomenon can lead to cultural identity crises, especially in multicultural nations like Indonesia, where pluralism and socio-economic disparities further complicate the preservation of local heritage (Dinata et al., 2023). The process of cultural assimilation, driven by media and consumerism, accelerates these transformations, making it increasingly difficult to sustain indigenous knowledge systems and practices.

Indonesia, a nation rich in cultural diversity, faces pressing concerns over national identity due to the globalisation's impact on its youth. Studies indicate that younger generations increasingly prefer foreign cultures, viewing indigenous traditions as outdated (Elisha et al., 2022; Nurhaidah & Musa, 2017). This identity shift, exacerbated by the social and economic inequalities, threatens the preservation of local wisdom and traditional values (Ramlan et al., 2023). Addressing this issue requires strategic efforts to reinforce national identity through the cultural and

educational interventions, particularly within institutions that can bridge historical narratives with modern engagement.

Falk and Dierking (2000) highlights the role of museums in creating meaningful learning experiences that help visitors understand and interpret culture, while Hooper-Greenhill (2000) explores how museums select and arrange artifacts to construct knowledge and generate value through the interpretation of visual culture. Traditionally regarded as static repositories of artifacts, museums are evolving into dynamic learning spaces that engage communities, foster intercultural dialogue, and integrate local wisdom into contemporary identity-building efforts (Black, 2012; Yusof, 2012). However, the role of museums in safeguarding and promoting local wisdom as a means of strengthening national identity remains underexplored. This gap calls for a deeper investigation into how museums can serve as intermediaries in balancing global influences with the preservation of indigenous cultural heritage.

In the Southeast Asian context, museum education has been increasingly recognised for its role in reinforcing cultural appreciation. Yusof (2012) highlights that museums in the region function as vital platforms for storytelling, knowledge transmission, and experiential learning. Similarly, Venkatesh et al. (2016) argue that

museum narratives significantly influence national identity formation. However, these studies often focus on Western-centric models of museum learning, overlooking the role of indigenous knowledge systems in shaping visitor experiences and historical interpretation. Understanding how museums can employ localised approaches to enhance identity preservation is thus critical for cultural sustainability.

In Indonesia, the concept of national identity has long been intertwined with historical narratives constructed by cultural institutions. Wiweka and Utami (2017) assert that Indonesian museums face a dual challenge: maintaining historical authenticity while adapting to contemporary identity discourses. Research on Oranje Fort in Ternate, for instance, reveals issues related to management, public engagement, and financial sustainability (Harbelubun et al., 2020). Similarly, the Sultan of Ternate's Palace Museum (STPM) holds immense historical significance but struggles with accessibility, conservation, and its relevance to modern audiences (Acim & Far-Far, 2021). While these studies address infrastructure and governance challenges, they seldom examine how these museums actively contribute to national identity through the integration of local wisdom. A more comprehensive understanding of museum functions beyond physical preservation is crucial in strengthening their role in identity formation.

Ternate, an island historically recognised for its strategic role in the spice trade, possesses a rich cultural heritage shaped by centuries of colonial encounters and

indigenous governance. The presence of historical sites, such as the Oranje Museum Fort (OMF) and the Sultan of Ternate's Palace Museum (STPM), underscores the region's potential as a cultural hub for national identity reinforcement. However, existing research has primarily focussed on economic and infrastructural aspects, leaving a gap in understanding how these museums utilise local wisdom to strengthen national identity (Kumoratih, 2022; Prakoso, 2024). Given the region's historical significance, a more intentional effort is needed to harness its cultural assets for national identity preservation.

Building upon previous research, this study aims to fill this gap by exploring the role of museum learning based on local wisdom in strengthening national identity in Ternate. Specifically, it seeks to investigate (1) how Local Wisdom-based Museum Learning (LWBML) contributes to national identity formation at OMF and STPM, and (2) how a preliminary model of Local Wisdom-based Museum Learning can be developed to enhance national identity in Indonesia.

By employing a qualitative approach, this research examines museum practices, cultural leadership, and community engagement to propose a comprehensive framework for integrating local wisdom into museum learning. The study emphasises an interdisciplinary perspective, combining historical analysis, educational theory, and sociocultural insights to develop an effective model for national identity reinforcement.

The findings of this study are expected to offer theoretical insights into the intersection

of museum education, local wisdom, and national identity while providing practical recommendations for policymakers, museum practitioners, and educators. Through a deeper understanding of how museums in Ternate facilitate identity formation, this research contributes to broader discussions on cultural preservation, educational innovation, and the role of heritage institutions in contemporary society. By bridging the gap between traditional knowledge and contemporary museum practices, this study aims to reinforce the importance of local wisdom as a cornerstone of national identity in an increasingly globalised world.

LITERATURE REVIEW

Museum learning is an evolving educational process that facilitates knowledge construction, cultural understanding, and visitor interaction (Falk & Dierking, 2000). Traditionally, museums were seen as passive repositories of artifacts, but modern museum learning integrates active engagement and contextual meaning-making (Hooper-Greenhill, 2000). Today, museums serve as dynamic spaces that incorporate inclusivity, intercultural dialogue, and new technologies to create meaningful learning experiences (Black, 2012).

Beyond Western-centric Museum models, studies in Southeast Asia emphasise the importance of integrating local cultural narratives into museum education. Yusof (2012) highlights that museums in the region play a critical role in fostering cultural appreciation through thematic

storytelling and interactive learning. Similarly, Venkatesh et al. (2016) argue that museum narratives significantly influence national identity formation. However, while these studies recognise the educational potential of museums, they often neglect the nuanced role of local wisdom in shaping visitor experiences and historical interpretation. This study addresses that gap by examining how museum learning in Ternate incorporates indigenous knowledge systems.

Local wisdom is a vital component of cultural sustainability, representing traditional knowledge and values passed down through generations (Setyaningsih et al., 2019). Unlike formal education, local wisdom is transmitted through oral traditions, daily practices, and symbolic expressions that reinforce community identity (Nugroho, 2021). Studies suggest that integrating local wisdom into museum learning strengthens cultural heritage transmission and deepens historical engagement (Yusof, 2018).

The integration of local wisdom in museum education varies across contexts. In Japan, Komae (2004) notes that museums actively collaborate with local communities to preserve intangible cultural heritage, ensuring that traditional practices remain relevant. In China, museums play an ideological role in reinforcing state narratives, as demonstrated in the curated exhibitions of the National Museum of China (Shelach-Lavi, 2018). However, in Indonesia, museum learning is still largely shaped by the colonial and nationalistic frameworks, with limited incorporation of indigenous perspectives.

Despite its potential, local wisdom is often treated as a static entity rather than a dynamic knowledge system that adapts to modernisation. This research challenges that perspective by positioning local wisdom as an evolving force in the negotiation of national identity. In the case of Ternate, where historical narratives are deeply intertwined with the spice trade and sultanate governance, museum learning must engage critically with both past and present cultural dynamics.

Museums play a crucial role in shaping national identity by constructing historical narratives that reflect political and cultural ideologies (Blakkisrud & Kuziev, 2019). In Tajikistan, for example, museum exhibitions serve as political tools to reinforce state-controlled identity discourses. Similarly, provincial museums in Prussia historically constructed national identity through curated representations of regional heritage (Kłodkiewicz, 2021).

In Indonesia, the relationship between museums and national identity is complex. Wiweka and Utami (2017) argue that Indonesian museums struggle to balance historical authenticity with contemporary identity-building efforts. Research on Oranje Fort in Ternate reveals challenges in management, funding, and public engagement (Harbelubun et al., 2020). The Sultan of Ternate's Palace Museum, despite its rich historical significance, faces issues related to accessibility, conservation, and relevance to modern audiences (Acim & Far-Far, 2021). While previous studies focus on infrastructure and management, few explore how these museums actively

construct national identity through the representation of local wisdom.

This research examines how museum narratives in Ternate navigate tensions between local, national, and global identity discourses. By comparing two museum cases, the Oranje Museum Fort (OMF) and the Sultan of Ternate's Palace Museum (STPM), this study investigates the mechanisms through which historical artifacts, cultural symbols, and visitor engagement contribute to the formation of a collective national identity.

Building on these theoretical discussions, this study proposes an integrative framework linking museum learning, local wisdom, and national identity. Existing literature presents these concepts separately, museum education as a pedagogical tool (Hooper-Greenhill, 2000), local wisdom as a form of cultural preservation (Setyaningsih et al., 2019), and national identity as a product of historical narratives (Smith, 2003). However, there remains a gap in understanding how museums can serve as conduits for cultural negotiation, where local wisdom actively interacts with broader historical narratives.

This research introduces the Museum Learning-based Local Wisdom Model (*Musdomnity* Model) to explain how museums function as dynamic spaces where identity is constructed through engagement, knowledge transmission, and community participation. The model conceptualises museums not merely as institutions for artifact preservation but as living spaces where history, culture, and education intersect. The interrelationship

Table 1
Conceptual framework of museum learning, local wisdom, and national identity (Abbreviated as the Musdomnity Conceptual Framework or MCF)

Strengthening National Identity		
Components of Museum Learning (MI)	Components of Local Wisdom (LW)	Components of National Identity (NI)
1. Interaction	1. Experiential Learning	1. Cultural Heritage
2. Knowledge Construction	2. Cultural Heritage	2. Historical Narratives
3. Contextual Understanding	3. Digitalisation	3. Continuum of Civilisation
4. Preservation of Cultural Heritage	4. Community Involvement	4. Local Identity
5. Inclusivity		5. Ideology
6. Cultural Identity		
7. Cultural Transmission		
8. Representation		
Platform	Content	Goal

Source: Synthesised by Bagus H. Prakoso adapted from: Anderson (1983), Black (2012), Golding (2009), Hooper-Greenhill (2000), Kłudkiewicz (2021), Kolaříková (2024), Komac (2004), Shelach-Lavi (2019), Venkatesh et al. (2016), and Yusof (2012)

among these elements is illustrated in Table 1, which presents the conceptual framework of museum learning, local wisdom, and national identity.

METHODS

This research reveals the reality of practices and deep understanding (Denzin, 1998) regarding Museum Learning and Local Wisdom to strengthen National Identity. To achieve this, the research explores the existence, role, and benefits of the Museum Kedaton (Sultan Ternate Palace Museum or STPM) and Oranje Museum Fort (OMF), North Maluku, Indonesia.

The research involves participants such as museum visitors, museum managers, communities, relevant agencies, students and teachers from Senior High School (SMA) 1 Ternate, staff at the Cultural Preservation Office (BPK), as well as students and lecturers from Khairun University Ternate.

Participants are selected based on their visits, work, and relevant field of study.

In the initial phase, the researchers explain to participants the goals and technical aspects of data collection. Researchers also provide explanations about the concepts of Museum Learning, Local Wisdom, and National Identity, as well as what can be contributed to this research.

Participants are selected according to the title and objectives of the research. Student and lecturer participants are selected from those who have visited both museums. Museum managers, teachers, and lecturers are chosen according to the research title. Museum visitors do not require specific qualifications, only their willingness to participate.

To obtain perceptions about Museum Learning, Local Wisdom, and National Identity, researchers use Google Forms via mobile phones or personal computers. About

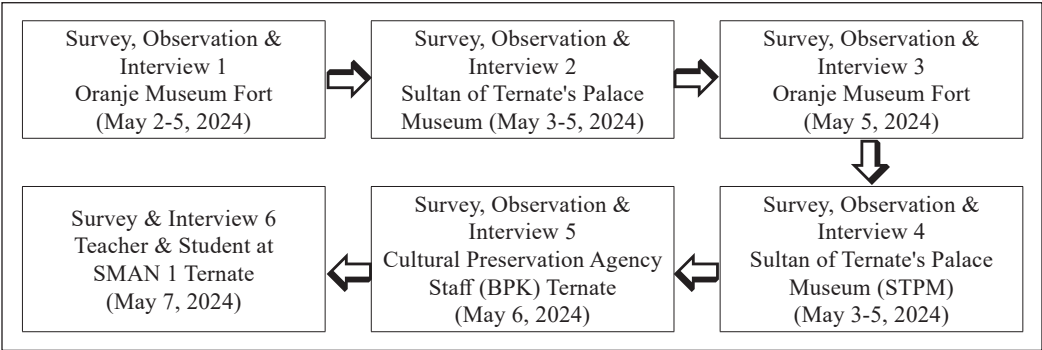


Figure 1. Data collection procedure and time management

40 participants fill out the questions on the Google Form.

Interviews at the school involve 3 relevant teachers and 3 11th-grade students who are ready for interviews. Interviews with 3 museum managers are conducted at their work locations. Interviews with museum visitors are conducted according to the museum's opening hours and locations. For lecturers, interviews are conducted at Fort Oranje due to its strategic location). Before being interviewed, teachers, students, and lecturers are asked to fill out the Google Form.

Researchers use semi-structured interviews to allow space for additional questions that may arise. This approach also provides flexibility, depth of data, adaptability, and relationship with participants (Denzin & Lincoln, 2018; Patton, 2015). For data validity, peer debriefing is conducted and participants are asked to verify the results (Creswell, 2018).

Observations are also used to understand the context, behaviour, social interactions, rich empirical data, aid in validation and triangulation, reveal hidden phenomena,

and assist in reflection and interpretation (Denzin & Lincoln, 2018). Researchers may also obtain information about activities that participants might not mention during interviews. Additionally, this study also used secondary data to complement primary data. The secondary data were obtained from databases, archives, government documents, publications by non-governmental organisations, books, and journals. The detailed schedule and sequence of the data collection process—including surveys, observations, and interviews conducted across several institutions and museums in Ternate—are illustrated in Figure 1.

This research employs thematic analysis, which involves the following steps: (1) familiarising yourself with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining themes, and (6) producing the final report (Braun & Clarke, 2006). After identifying patterns and themes, data from document studies, observations, and interviews are verified through triangulation and analysed thematically. This process is carried out to filter the data appropriately. Finally, the

findings are presented, with the data being showcased followed by the conclusion.

RESULTS AND DISCUSSION

How Does Museum Learning based on Local Wisdom Strengthen National Identity at the Kedaton Museum (Sultan of Ternate's Palace Museum)?

The survey results present perceptions about the existence and role of museums, focussing on the Sultan of Ternate’s Palace Museum (STPM) and the Oranje Museum Fort (OMF). A total of 40 respondents completed the survey via Google Forms, and the findings on museums and local wisdom are summarised in Table 2.

Most respondents agree that local wisdom has the potential to strengthen national identity; however, this percentage decreases when linked to local wisdom practices in museums. Additionally, the public’s motivation to visit museums is more focussed on history and cultural heritage. This indicates a lack of appeal in museums for promoting understanding and a deficiency in the presentation of exhibitions and programmes related to local culture.

When discussing the Palace Museum, it is inseparable from the existence of the Sultan of Ternate's Palace Museum, which is one of the four oldest Islamic kingdoms in Indonesia. This Sultanate played a significant role in the spice trade in Southeast Asia, attracting European powers. In the 16th century, the Portuguese faced fierce resistance from Sultan Baabullah when they arrived in Maluku. Subsequently, the Dutch through the VOC and the Spanish also entered the region to control the strategic spice trade routes.

The Palace Museum is managed by and located within the Ternate Sultanate, which includes various supporting infrastructures such as a mosque, cemetery complex, pavilions, gardens, and guard posts. These facilities reflect the close relationship between the Sultanate and its cultural institutions. As shown in Figure 2, the museum complex—including the Sultan Palace and auxiliary buildings, illustrates the integration of heritage, authority, and cultural continuity within the Sultanate.

The life of the Ternate Sultanate family continues to be integrated into a single

Table 2
Summary of perceptions about museums and local wisdom

No.	Question/Statement	Answer
1	Local wisdom in the form of (1) religious beliefs and rituals, as well as (2) local arts and crafts, can strengthen national identity.	72 % Agree 75 % Agree
2	The practice of local wisdom in museums takes the form of permanent and temporary exhibitions.	46 % Agree
3	Motivations for visiting museums include: (a) learning about history and cultural heritage; (b) gaining insights and knowledge; (c) getting to know and understand local culture.	43.4% 30.2% 26.4%



Figure 2. Sultan Palace (left), Palace Museum and supporting infrastructure (right)

Source: Photographic document by BagusHP (May 2024)

traditional government institution. The Sultan's activities and policies serve as a reference for the social and religious life practiced by the Ternate community for centuries. In fulfilling his role, the Sultan is assisted by palace officials from the noble class and those with familial ties to the Sultan. These officials are appointed and dismissed by the Sultan, who also grants them specific titles according to their positions (Observation 4; Yusup & Widjayengrono, 2023).

Additionally, several ethnic groups residing in the kingdom's territory are recruited into the royal family through a district representation system, providing a basis for legitimacy and integration. For example, the Javanese ethnic group is given a position in the government as bobato akhirat (religious affairs) with the title Imam Jawa. The Makassarese ethnic group is placed in bobato dunia (worldly affairs) with the title Kapita Makassar, and so on (Hasyim, 2019).

This situation indicates that the Ternate Sultanate family still manages to demonstrate and preserve components of

Cultural Heritage, Cultural Identity, and Cultural Transmission. The Sultan's role as a cultural and religious symbol reflects how local identity is maintained and passed down through a traditional institution that remains active today. Furthermore, efforts to preserve and protect this cultural heritage are crucial for strengthening national identity in Ternate. Another important aspect in maintaining unity is inclusivity, where the Sultan recruits various ethnic groups into the royal family with specific titles and positions.

Regarding the broader role, the findings reflecting the *Musdomnity* Conceptual Framework (MCF) are summarised in Table 3, which outlines key practices of the Sultan Ternate Palace Museum derived from interview analysis.

Subsequently, several phenomena were observed that depict ritual practices as part of the cultural heritage and customary law of the Sultanate of Ternate. On this occasion, a number of national, provincial, and technical officials who visited the palace were bestowed traditional titles corresponding to their positions, indicating

Table 3
Summary of practices at the Sultan Ternate Palace Museum

No.	Component	Existence and Role
1	Cultural Heritage	Extract 01 “Until now, we still have local wisdom that remains in the community, including traditional ceremonies here from birth until death ...”
2	Historical Narratives	Extract 02 “Sultan Babulah had already implemented a camouflage warfare system that could deceive the enemy, in this case, the Portuguese.”
3	Local Identity	Extract 03 "For traditional clothing according to our local wisdom, as well as in the activities of the Ternate city anniversary ceremony..."
4	Knowledge Construction	Extract 04 “...through new educational programmes currently being implemented, it is only taught as a local content at the junior high school level.” "We hope that information about us can be known by many people."
5	Community Involvement/Engagement	Extract 05 "They prepare financially to attend Legugam because at this festival, in addition to the traditional festival, there is also the local economy, and transactions range from traditional trade to high-tech sales ..."
6	Preservation of Cultural Heritage	Extract 06 "Kololiek is a ritual ceremony for cleansing the land by asking God for safety and protection from disasters."
7	Experiential Learning	Extract 07 "They often see it. In war dances, this object (machete and salawaku) is frequently used as a prop for the war dance."
8	Cultural Transmission	Extract 08 "Most of Ternate's history is conveyed orally through stories passed down through generations."

Source: Interview 4, analysed by authors

that local culture is still practiced and respected in official events. Further evidence from document analysis supporting these observations is summarised in Table 4.

In performing its role, it appears that Palace Museum relies on components of cultural heritage, followed by historical narratives and local identity, in an effort to strengthen national identity. These components reflect the idea that cultural institutions play a pivotal role in shaping and reflecting the politics of identity (Higgins,

2017). By integrating these components, museums are expected to serve as a bridge between the past and the present, enhancing the connection between local and national identities.

The existence of Palace Museum in responding to local and national identity still requires greater presence and visitor engagement in implementing experiential learning components. This is done to provide a deep and meaningful experience. In practice, this approach still needs to be

Table 4
Summary of document study

No	Component	Existence and Role
1	Cultural Heritage	Excerpt 01 "This sultanate has deeply rooted customs and traditions, so we came here to show respect, pay our homage, and we hope that the Sultanate of Ternate continues to be a pillar of strength for Indonesia's cultural power, as well as for the unity of Indonesia." (Siti, 2024) Excerpt 02 "..., the Deputy Attorney General performed a two-rakaat sunnah prayer in accordance with the laws of the Sultanate of Ternate." (Khaira, 2022) Excerpt 03 "The previous president also participated in the Joko Kaha ritual, or stepping on the ground. This ritual is a traditional ceremony to welcome distinguished guests in the courtyard of the Palace Museum." (Phytag, 2022)

developed to increase the number of visits and the quality of visitor interactions, particularly within the Palace Museum.

This situation is due to limitations in financial resources, human resources, and tourism and museum management (Observation 4). As cultural institutions, ideally, museums should play a role in helping individuals understand their heritage and roots. Research indicates that these institutions are vital resources for cultural education, providing access to historical artifacts, narratives, and community engagement opportunities that foster a deeper connection to one's background (Candela, 2023).

In terms of Experiential Learning and Community Involvement, there is an indication of the importance of enhancing direct experiences and community participation in the learning process to strengthen the connection between local and national identities. An integrated atmosphere

between these components can improve community development, where the process involves cultural identity, environmental sustainability, and participatory governance, impacting service effectiveness and resource efficiency.

However, there is still room for improvement in the scope and inclusiveness of community participation. This need for greater inclusivity is a result of resource limitations, affecting the cultural transmission component in ensuring that traditions remain engaging for younger generations.

Additionally, the role of Knowledge Construction both inside and outside the museum is crucial for strengthening national identity. One indicator of achievement in the museum is that visitors can gain an understanding of local culture and history as national assets. In this context, interactive methods are still needed to enhance the museum's exhibition arrangements.

According to Hooper-Greenhill (2000), this component can be constructed through social interaction and collaborative processes. A strength of the Palace Museum is its association with the Sultanate.

In other activities, the aspect of acceptance and recognition (legitimacy) through the arrival of national officials to acknowledge the existence and customs of the Ternate Sultanate demonstrates the potential of the palace and museum in promoting local identity. This phenomenon shows that local identity can be preserved and integrated into modern governance structures. In this case, museums need to continue innovating through learning approaches to support sustainability.

So far, it appears that the Kedaton Museum plays a significant role in influencing identity formation through various mechanisms, including socialisation (cultural transmission), access to cultural narratives, and community engagement (Zhang & Wei, 2023). The Palace Museum also plays a role in shaping and reflecting the politics of identity in contemporary society by acting as sites of negotiation and representation (Magazzini, 2016). In this case, negotiation can be interpreted as part of the interaction component.

How Does Museum Learning based on Local Wisdom Strengthen National Identity at the Oranje Fort Museum?

The history of Oranje Fort in Ternate initially began with its construction by the Portuguese in the 16th century. Later, the fort was gifted to the Dutch by the Sultan of Ternate in recognition of their success

in expelling the Spanish from Ternate. The Dutch rebuilt the fort in 1607, and it now stands as one of the significant historical relics from the colonial era in North Maluku. The uniqueness of this fort lies not only in its museum but also in its distinctive European architecture, which blends with local culture and its strategic location closely tied to the history of the spice trade. The fort's geographical position and architectural features are shown in Figure 3. Hereafter, this article will refer to it as the Oranje Fort Museum (OFM).

According to Keay (2005), spices in the Maluku Islands are a valuable natural resource and play a central role in the spice trade route connecting the Eastern and Western worlds. These spices also drove global exploration, colonialism, and cultural exchange that shaped world history. The historical and archaeological aspects of the fort serve as a silent witness to the dynamics of colonialism in the Indonesian archipelago.

Despite having strong historical value, OFM still struggles with suboptimal visitor numbers. This is due to limitations in resources, collections, and tourism and museum management (Observation 01; interview with the Ternate Tourism Agency (Harbelubun et al., 2020), all of which affect the museum's ability to provide meaningful learning experiences.

Currently, OFM is managed by the Ternate City Government through the Department of Culture and Tourism. The two museums in OFM are working to respond based on local wisdom and to strengthen cultural and national identity



Figure 3. Geographical position and main gate of the OFM
Source: Photographic document by BagusHP (May 2024)

by helping younger generations understand their cultural heritage. To this end, the Ternate Tourism Agency perceives the need for "the integration of local wisdom in museum learning to create contextual and relevant learning experiences, deepening visitors' understanding of cultural values."

Regarding visitor issues at OMF, it is necessary to differentiate between educational visits related to history and national struggles (Type 1) and indirect visits related to history and national struggles (Type 2). Type 2 visits, being indirect, can be considered as supporting the existence and role of OMF for the community and society. For Type 1 visits, visitors can tour the cultural heritage buildings during working hours. For Type 2 visits, visitors can explore and use various rooms, buildings, and facilities used by the community and society for diverse interests with more flexible schedules and timeframes (Observation 01).

The role of OFM can be linked to museum learning practices based on local wisdom and national identity. The following findings, summarised in Table 5, present

interview results with the museum head and staff from the Cultural Conservation Center (BPK) that reflect the *Musdomnity* Conceptual Framework (MCF).

Referring to the summary in Table 5, it is evident that OMF has made efforts to reflect local wisdom and national identity by showcasing artifacts and symbols that represent local history and culture. The preservation of cultural heritage in museums, such as the symbols of the sultanate and historical items, not only safeguards physical objects but also supports the understanding and appreciation of the social and historical context behind these objects. It is hoped that by incorporating contextual information and local history into the exhibits, museums can help visitors build knowledge about national identity through the integration of local knowledge.

To strengthen this narrative, the results of observations at the Ternate History Museum and the Ternate Spice Museum in Oranje Fort are presented. A summary of these findings, which illustrate key aspects of museum learning, is provided in Table 6.

Table 5
Summary of interviews reflecting the Musdomnity Conceptual Framework (MCF)

No	Component	Description
1	Cultural Identity	Cultural identity, especially ethnic identity, is crucial in nation-building. Smith emphasises the role of myths of descent, historical memory, and shared symbols in defining national identity. These cultural elements can strengthen the dominant ethnic identity alongside the development of a nation (Smith, A. D., 1991).
2	Representation dan Cultural Identity	Extract 09. "These museums reinforce cultural identity by displaying artifacts that represent local history and culture, such as symbols of the sultanate and the kora-kora ship. They illustrate how Ternate's cultural identity has been shaped by the history of spice trade and interactions with other nations." Cultural identity is not only influenced by the objects themselves but also by the social and political contexts in which these objects are presented (Hooper-Greenhill, E., 2000). Extract 10. "Highlighting heroes in North Maluku, who can serve as symbols and figures of the North Maluku community, emphasises the need to elevate local figures as symbols of identity, contributing to a better understanding of how local identity influences national identity."
3	Preservation of Cultural Heritage	Museums play a crucial role in preserving cultural heritage. They are not merely repositories for objects but also spaces for understanding and appreciating cultural heritage (Lowenthal, D., 1985). Extract 11. "The Ternate history museum preserves cultural heritage by displaying sultanate symbols such as the Goheba and the Afo clove, which survived the Dutch Hongitochten policies. This demonstrates efforts to preserve valuable local history and cultural heritage."
4	Contextual Understanding	Museum education is not just about presenting information; it is also about helping visitors understand the broader context of the objects on display. Hein uses educational theory to show how visitors can learn from exhibitions that are physically, socially, and intellectually accessible to everyone (Hein, G. E., 1998). Extract 12: "The spice museum and the Ternate history museum provide contextual understanding through exhibits that depict both local and global history. For example, the existence of the sultanate is illustrated through infographics on specific panels, and the use of the kora-kora boat in the maritime political strategy of the Ternate Sultanate."
5	Knowledge Construction	Knowledge is a social construction, where it does not inherently exist but is instead built through social processes and human interactions. This knowledge is influenced by social, cultural, and political contexts (Denzin, N. K., & Lincoln, Y. S. (Eds.), 2018). Extract 13: "Museums can offer the historical structure of Ternate and Tidore, showing that providing a better representation of local history will enrich the construction of knowledge about national identity, helping visitors understand the role of local history in the national narrative."

Table 6
Summary of observations from two museums at OMF

No	Component	Description
1	Knowledge Construction	The museum exhibition layout helps visitors build new knowledge through the information presented. Extract 14: "In the third room, there is a panel containing a narrative and a map of the spice trade routes in Southeast Asia during the 13th century." (observation 03)
2	Cultural Identity	This museum exhibition layout reflects and reinforces local or national cultural identity. Extract 15: "The fourth panel displays a map showing Sulawesi, North Maluku, and parts of Nusa Tenggara. The map includes labels such as 'Ternate,' 'Tidore,' 'Uli Lima,' and 'Uli Siwa.'" (observation 03)
3	Contextual Understanding	This museum exhibition layout helps visitors understand the historical or cultural context of the artifacts on display. Extract 16: "At the far southern end of the museum, there is a collection as well as tombstones or graves." (observation 03)

In addition to the three prominent components in the context of museum learning, there are also three components that need improvement. First is the component of Interaction, which highlights a lack of direct interaction or activities that allow visitors to engage more actively with the exhibition materials. This issue is related to the availability of interactive elements or programmes that involve visitors in enhancing their learning experience.

Second is the component of Inclusivity, which seems to focus predominantly on specific historical and cultural aspects without showing inclusivity from various perspectives and different groups. Third is the component of Cultural Transmission. This concerns the absence of museum staff and mechanisms to convey culture to various levels and across generations.

In practice, OMF is connected to the presence and roles of 11 communities both inside and outside the Oranje Fort. Observations identified three key communities located within the fort: the Javanese Brotherhood Family Harmony Community (KKPJ), which preserves Javanese arts and culture; ECO Enzyme, which promotes organic waste utilisation; and the Local Weaving Preservation Community, which produces traditional woven fabric. Their cultural and creative activities within the fort are illustrated in Figure 4.

Based on the profiles and activities of 11 communities, four were found to most prominently reflect the *Musdomnity* Conceptual Framework (MCF), particularly the components of Cultural Heritage, Cultural Identity, Cultural Transmission,



Figure 4. The activities of the Javanese Brotherhood Family Harmony Community and the Local Weaving Preservation Community (located inside the fort)
Source: Photographic document by BagusHP (May 2024)

and Community Involvement. A summary of these community profiles and their activities is presented in Table 7.

Referring to the concept of Museum Community Partnerships by McConaghy & Nagel, (2007), in the aspect of Community Involvement/Engagement, there appears to be Community Partnerships and Community Involvement between the community and SMEs in cultural activities. This is evident in initiatives like Music Corner 2022, Gitar MU, and Oranje Fort as a center of creativity. This has occurred due to Volunteer Coordination in the form of communication and collaboration between communities, which has had a positive impact (Community Impact) through cultural activities in the community as a means of preserving cultural heritage.

Various activities and achievements are indicated by the actions of teenagers and communities who frequently gather and engage in discussions within the fort area, especially at night. The choice of nighttime is supported by several factors such as nearby cafés, parking facilities, easily accessible open spaces, cooler nighttime

temperatures, and the limited public areas in Ternate (Observation 03).

These four communities play a role in the preservation and development of local wisdom, aligning with the museum's goal of preserving and promoting cultural heritage. By focussing on cultural preservation, education, social cohesion, and the strengthening of local identity, these communities indirectly contribute to the reinforcement of national identity according to their passions. Collaboration between societal elements, communities, and the museum also has the potential to enhance synergy amidst various limitations.

Museum partnerships are crucial for increasing local community engagement by creating a collaborative and inclusive environment to address community issues. These partnerships shift the museum's role from a traditional authority to one that values diverse community input. This can help create more relevant, meaningful, and sustainable community experiences and engagements. Several practices demonstrate that museum community partnerships significantly enhance visitor experiences

Table 7
Summary of the community profiles and their activities

No	Community and Activities	Components and Descriptions
1	Fala Tudu Community This community is involved in activities that focus on the preservation and development of local cultural heritage through art, crafts, and traditions (I. Randi, 2024)	Cultural Heritage Excerpt 1 “... will continue to carry out educational activities for the public and, specifically, for the members to keep developing and learning about culture and local customs.
2	Music Corner 2022 This community focuses on supporting and strengthening Ternate's cultural identity through music and creative economy activities by involving various MSME (Micro, Small, and Medium Enterprises) actors and the local community in activities that support the local economy (B. Randi, 2022)	Cultural Identity Excerpt 2 ... we greatly need the support of all parties, especially the people of Ternate, by loving our local products"
3	Marimoi Arts and Culture Studio IAIN Ternate This community emphasises education and cultural heritage to the younger generation to ensure the continuity of traditions (Akbar, 2022)	Cultural Transmission Excerpt 2 “Reintroducing young generations to the culture and traditions of North Maluku" There are 9 communities related to the component of Cultural Transmission.
4	North Maluku Guitarists Community (GitarMU)" This community emphasises active community involvement in activities to strengthen and promote local culture (Fauzan, 2021)	Community Involvement Excerpt 3 "Reviving this fort as a center for youth creativity in Ternate... Becoming a driving force for the government by energizing 17 subsectors of the Creative Economy in Ternate."

by fostering inclusivity, engagement, and relevance (Katz, 2019).

How Can a Preliminary Model of Museum Learning based on Local Wisdom be Developed to Strengthen National Identity at Sultan of Ternate's Palace Museum and Oranje Museum Fort?

Referring to the results and discussion, a number of findings and patterns were obtained. The first finding is that the two cases exhibit somewhat different patterns in using resources and applying MCF to

address national identity issues. The second finding is that OMF uses components in the following order: Cultural Identity, Cultural Heritage, Knowledge Construction, Contextual Understanding, Community Involvement/Engagement, and Cultural Transmission. In contrast, STPM uses components in the order of: Cultural Heritage, Historical Narratives, Local Identity, Cultural Transmission, Preservation of Cultural Heritage, and Community Involvement/Engagement. The third finding is that other components used by both

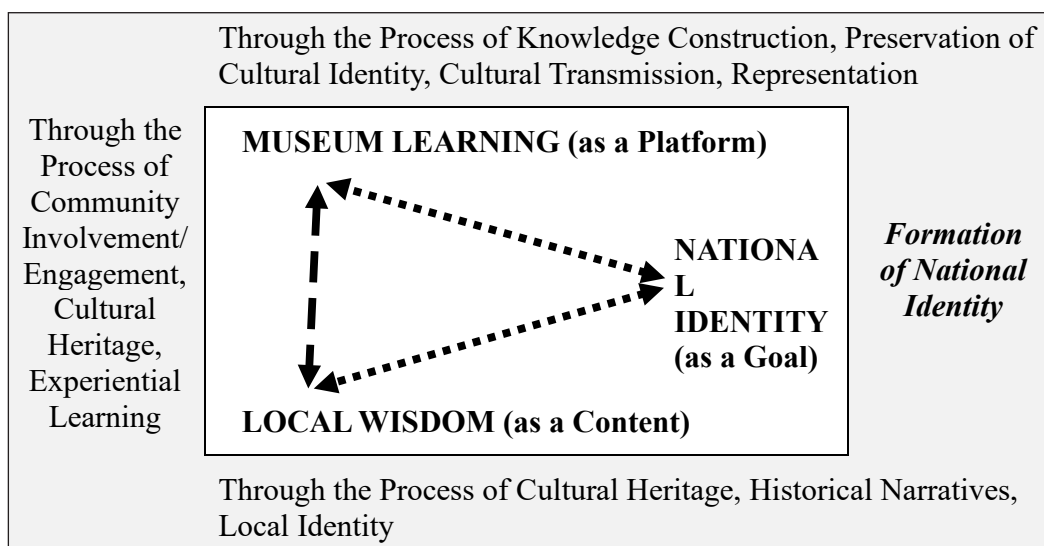


Figure 5: Preliminary model of museum learning based on local wisdom to strengthen national identity (abbreviated as Musdomnity Preliminary Model)

cases include: Representation, Historical Narrative, Preservation of Cultural Heritage, Experiential Learning, Cultural Identity, and Knowledge Construction. The indication is that other components are either not used, less connected, or mixed within the core components.

Based on these three findings, the modification results from the Conceptual Framework to the Preliminary Model of Museum Learning based on Local Wisdom for Strengthening National Identity are as follows. The change from a table to a flowchart relates to the patterns of relationships between components that are embedded and interconnected (see Figure 5).

CONCLUSION

The implementation of museum learning based on local wisdom for strengthening national identity in Oranje Museum Fort

(OMF) and Sultan of Ternate's Palace Museum (STPM) demonstrates distinct approaches shaped by structural differences and governance models. OMF adopts a community-driven and inclusive management style, allowing national identity to be reinforced in a diverse and contemporary manner. In contrast, STPM relies on the Sultan's legitimacy and the palace apparatus, making its approach more traditional and embedded in customary authority. Despite challenges in optimising museum learning, OMF benefits from strong community participation, whereas STPM is upheld by cultural leadership and the palace institution as key enablers.

The theoretical implication of this study lies in its contribution to expanding the conceptual framework of Local Wisdom-based Museum Learning (LWBML), which integrates Falk and Dierking's (2000)

insights on meaning-making through museum experiences, Hooper-Greenhill's (2000) perspectives on visual cultural interpretation, and Yusof's (2012, 2018) emphasis on the role of local wisdom in Southeast Asian museum education.

This study reinforces the notion that LWBML is not merely a vehicle for cultural preservation, but also a dynamic arena for negotiating national identity in ways that are responsive to local contexts. Accordingly, this research enriches the corpus of museum education studies and offers a contextually grounded, locally rooted approach to identity formation.

However, this study has limitations. The number of participants and the representativeness of case studies may limit the generalisability of the findings. Additionally, museum learning practices and community engagement models may vary across Indonesia, requiring broader research on other representative museums. Future studies should explore Museum Community Partnerships to assess their long-term sustainability and impact on national identity reinforcement.

By addressing these limitations, further research can refine LWBML frameworks, ensuring that museums serve as dynamic and inclusive institutions for cultural preservation and identity building in Indonesia.

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Do Teachers' Years of Experience and Participation in Teacher Certification Training Influence TPACK Abilities?

Rima Meilita Sari^{1*}, Ridhwan², Tengku Muhammad Sahudra¹, Faiz Urfan¹, and
Heni Waluyo Siswanto³

¹Geography Education Study Programme, Faculty Teacher Training and Education, Universitas Samudra, Jl. Prof. Dr. Syarief Thayeb, Langsa, Indonesia

²Geophysics Study Programme, Faculty of Science and Technology, Universitas Samudra, Jl. Prof. Dr. Syarief Thayeb, Langsa, Indonesia

³National Research and Innovation Agency, Jl. MH Thamrin, Jakarta, Indonesia

ABSTRACT

This article aims to investigate the relationship between teacher years of experience and teacher certification training on teachers' TPACK (Technological, Pedagogical, Content, Knowledge) abilities. Online questionnaires were distributed to 500 high school teachers across disciplines using the TPACK questionnaire. Data was analysed using descriptive statistical tests and Kruskal-Wallis. The findings show that teachers' TPACK abilities are good. There are differences in TK (Technological Knowledge), PK (Pedagogical Knowledge), TPK (Technological Pedagogical Knowledge), TCK (Technological Content Knowledge), and TPACK abilities based on different teaching experiences and participation in teacher certification training. However, there was no significant difference in CK (Content Knowledge) ability between teachers' years of experience and participation in the certification training Programme.

Keywords: Professional certification Programme, teachers' training, TPACK ability, years of experience

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E-mail addresses:

rima.melita.sari@unsam.ac.id (Rima Meilita Sari)

ridhwan.geo@unsam.ac.id (Ridhwan)

tengkusahudra@unsam.ac.id (Tengku Muhammad Sahudra)

faiz.urfan@unsam.ac.id (Faiz Urfan)

Heniwaluyo.hw@gmail.com (Heni Waluyo Siswanto)

*Corresponding author

INTRODUCTION

One of the developments in 21st-century learning is the integration of information and communication technology (ICT) (Li et al., 2022; Xie et al., 2019). Integrating technology into learning has led to significant changes in classroom conditions (Bernacki et al., 2020; Scherer et al., 2017). The increasing popularity of technology among students from kindergarten to higher

education has prompted teachers to use technology in the classroom learning process (Chisango et al., 2020; Faizi, 2018; Huang & Teo, 2021). The utilisation of technology and information in classroom learning presents a major challenge for teachers (Faizi, 2018; McCulloch et al., 2018). This is because teachers play an important role in the integration of technology (M. M. Cheng et al., 2022; Nekardová, 2022) to make learning more effective (Chin & Wang, 2021; K. Y. Lin et al., 2021; Majeed & ALRikabi, 2022; Putra et al., 2021). Along with the development of ICT in teaching and learning, several previous studies have shown increased learning motivation (Faridah et al., 2020; Jian, 2019; Wang & Reeves, 2007). Furthermore, other studies have frequently mentioned that the use of digital learning in education effectively enhances students' knowledge, critical thinking, and creativity (Sari et al., 2022; Lin et al., 2022; Chen and Wu, 2023).

For teachers, the development of digital technology in classroom learning also adds demands on their ability to integrate technology. Teachers play an essential role in supporting the use of digital technology as a learning resource and for instructional activities (Nekardová, 2022; Tirado-Morueta et al., 2023; Tołwińska, 2021; Xu & Zhu, 2023). They must understand the concepts of technology and integrate it within pedagogical frameworks and the subject matter context (Castéra et al., 2020; S. L. Cheng & Xie, 2018; Dong et al., 2020). However, there are still challenges regarding technology use among teachers. Research

literature shows that many teachers struggle to integrate digital technology into various subject areas (Mundy et al., 2012; Z. Nxumalo & M. Nxumalo, 2023; Tze et al., 2020). Some prefer not to use technology with preschool students (Enochsson & Ribaeus, 2021). Other findings indicate that teachers often lack the knowledge and experience needed to integrate technology into learning (Muhazir & Retnawati, 2020; Tze et al., 2020). From teachers' perspectives, using technology makes it challenging to manage time effectively, leading them to focus more on content delivery than on how the content is taught (Muhazir & Retnawati, 2020). Although many teachers have started using technology in their daily lives, they still need proper training on how to integrate it into the classroom (Enochsson et al., 2022; Tze et al., 2020; Wood et al., 2005), specifically on understanding the components of technology, pedagogy, and content.

Competence in implementing technology, pedagogy, and content does not stand alone but rather interconnects and influences each other (Akyuz, 2018; Li et al., 2022). Integrating these components is known as TPACK (Technological Pedagogical Content Knowledge) (Castéra et al., 2020; Graham et al., 2009; Sahin, 2011). Introduced by Mishra and Koehler, TPACK assesses these three components and their relationships, providing a reliable way to evaluate teachers' digital competence (Bustamante, 2017; Graham et al., 2009). Therefore, the TPACK framework can explain teachers' abilities to implement

learning within a modern educational framework (Akyuz, 2018; Schmidt et al., 2009). 21st-century learning aims to sustainably enhance individuals' abilities within society for the future (Ridhwan et al., 2019; Sari et al., 2021).

TPACK encompasses the technology, pedagogy, and content knowledge that teachers need to integrate technology into the learning process. This framework describes the competencies to be developed to apply technology in 21st century learning and improve teachers' digital skills in the learning process (Li et al., 2022; Miguel-Revilla et al., 2020). The three main domains are Technological Knowledge (TK), Pedagogical Knowledge (PK), and Content Knowledge (CK). CK refers to knowledge of the subject matter being taught (Graham et al., 2009; Tseng et al., 2022). PK relates to pedagogical approaches that support student learning, and TK involves knowledge of technology. These three components further form four other competencies: Pedagogical Content Knowledge (PCK), which is related to the pedagogical content of teaching; Technological Content Knowledge (TCK), which refers to technology that represents specific content; and Technological Pedagogical Knowledge (TPK), which is the technological knowledge that can be used in learning (Miguel-Revilla et al., 2020). Technological Pedagogical Content Knowledge (TPACK) encompasses the knowledge required by teachers to integrate technology into learning across content areas (Luik et al., 2019; Yanuarto et al., 2020).

Knowledge of the teacher TPACK level requires decisions and advanced activities, such as holding courses and teacher training (Li et al., 2022; Miguel-Revilla et al., 2020). Such training aims to create professional, certified teachers. Teachers who have completed certification training have better competencies than those who have not (Ghavifekr & Rosdy, 2015; Y. Lee & J. Lee, 2014; Miguel-Revilla et al., 2020; Wu et al., 2022). Teacher training activities to improve TPACK abilities are necessary to improve the quality of teachers. However, before holding the training, it is necessary to measure the skills of the TPACK teacher. It aims to determine the teaching ability of teachers, especially in the use of technology in teaching (Aumann et al., 2023; Li et al., 2022; Sahin, 2011; Sahin et al., 2013). Several previous studies have carried out a series of TPACK skills measurements from prospective teachers to teachers (Akyuz, 2018; Li et al., 2022; Sahin et al., 2013; Scott et al., 2023). The measurement results show that teachers' TPACK skills still need to be improved. Furthermore, the quality of training related to curriculum and training materials is still considered insufficient to accommodate the ability to master the latest technology in teachers. Research findings from Woodside (2014) mentioned that inadequate competency training materials cause training objectives to be difficult to achieve. Training materials and the quality of trainers are an important part. The impact requires improvement efforts from teachers and institutions to increase knowledge and skills in integrating TPACK

in learning. Measuring TPACK aims to identify the TPACK subcomponents that need development, highlighting the importance of TPACK assessment before initiating teacher skill development.

Several factors influence teachers' TPACK capabilities. Previous studies reveal that teaching level and academic qualifications impact TPACK skills (Li et al., 2022). Research findings indicate that teaching level affects teachers' confidence in integrating technology into classroom learning (Li et al., 2022). Regarding academic qualifications, TPACK competence relates to teaching experience, technology use experience, and the provision of high-quality educational services (Antony et al., 2019; Chingos & Peterson, 2011; Doğanay & Öztürk, 2011; Graham et al., 2020). Other previous research found TPACK abilities in terms of teacher gender differences (Astuti et al., 2019; Gómez-Trigueros & De Aldecoa, 2021). These studies aim to design TPACK training tailored to teachers' individual needs.

Based on the issue description, numerous efforts have been made to assess teachers' TPACK abilities and compare them based on teaching level and academic qualifications. Although some research shows that length of teaching experience affects teacher professionalism (Alamsyah et al., 2020). Such findings confirm that length of teaching experience acts as a factor in teacher professionalism. However, it has not highlighted in depth the competencies that are improved and

does not link the use of technology. Thus, there is a lack of research comparing TPACK measurement in relation to years of teaching experience and participation in teacher certification training Programmes. This study highlights explicitly the comparison between teachers' teaching experience and participation in certification training. This research explores TPACK skills broken down into TK, PK, TPK, CK, TCK, and TPACK, so that the findings receive a more in-depth analysis. The research offers systematic comparisons that allow for clearer comparative analysis. Therefore, this study aims to explore teachers' TPACK skill levels and analyse differences in TPACK abilities based on teaching experience and participation in teacher certification training.

Research Question

This study is to analyse teachers' TPACK abilities based on their years of teaching experience and participation in teacher certification Programmes. There are three research questions:

- a. What is the level of teachers' TPACK abilities?
- b. How is the ability of teachers' TPACK and any significant difference in teachers' TPACK abilities based on their years of teaching experience?
- c. How is the ability of teachers' TPACK and significant difference in teachers' TPACK abilities based on their participation in teacher certification Programmes?

METHODS

Participants

This study analysed the TPACK abilities of 500 teachers across various subjects (social sciences, natural sciences, and languages). The participating teachers were selected from 57 high schools in Aceh, Indonesia, with an average student enrollment of 800 per school. Teachers were chosen regardless of geographical location but were selected from schools with education performance ratings of "yellow" (average quality) and "red" (low quality) (from raporpendidikan.kemdikbud.go.id). Teachers were categorised by teaching grade: 200 in grade X, 150 in grade XI, and 150 in grade XII. Of the participants, 460 hold a bachelor's degree, while 40 hold a master's degree. In terms of gender, there were 370 female teachers and 80 male teachers (Table 1).

To analyse the variable of teaching experience, teachers were given a questionnaire regarding their years of teaching experience, with data collected in primary statistical form. Teaching experience was categorised based on a literature review of previous studies examining teaching quality and years of teaching experience (Chingos & Peterson, 2011; Graham et al., 2020; Klassen & Chiu, 2010). The initial categorisation consisted of two groups: junior teachers with less than 5 years of experience (< 5 years) and senior teachers with more than 5 years (> 5 years). However, some studies indicate significant changes after 3 years of teaching experience (Chingos & Peterson, 2011; Klassen & Chiu, 2010). Based on

Table 1
Teachers' demographic characteristics

Variable	Frequency	Percentage
Teaching Grade		
Class X	200	40%
Class XI	150	20%
Class XII	150	20%
Education Qualification		
Bachelor's Degree	457	91,4%
Postgraduate Degree	43	8,6%
Gender		
Male	163	32,6%
Female	337	67,4%

the findings, the category of teaching experiences is more accurate in describing the teaching experiences of junior and senior teachers. By comparison, it showed that there was a decrease in teaching efficiency after 3 years. The teaching experience of 4-5 years is a transitional period as there is a change in the quality of teaching (Graham et al., 2020). In conclusion, we classify teachers into three categories: junior teachers, that is, young teachers who have teaching experience (<3 years), transition teachers who have 4 to 5 years of teaching experience, and senior teachers with >5 years of teaching experience.

The teacher certification Programme is a non-degree Programme designed for teachers who have completed a bachelor's degree and are deemed to meet the standards of competence and professionalism. Teachers were categorised as either having participated in the certification Programme or not. Characteristics of teaching experience and certification Programme participation are shown in Table 2.

Table 2
Characteristics of teachers' years of experience and teachers' certification training Programmes

Variable	Frequency	Percentage
Years of teaching experience		
< 3 years	92	18,4%
4-5 years	318	63,6%
> 5 years	90	18%
Experience in teacher certification programme		
Has participated	258	48,4
Has not participated	242	51,6

Instrument

Previous studies have extensively developed TPACK measurement instruments through teacher self-assessments (Sahin, 2011; Sahin et al., 2013; Li, Liu and Su, 2022). This study focuses on in-service teachers without consideration of specific teaching subjects. The instrument from Sahin's (Sahin, 2011) was selected, as it does not consider the subject area and is tailored for in-service teachers. The instrument consists of 48 items across seven indicators: Technology Knowledge (TK) with 15 items, Pedagogy Knowledge (PK) with 7 items, Content Knowledge (CK) with 6 items, Technological Pedagogical Knowledge (TPK) with 4 items, Pedagogical Content Knowledge (PCK) with 7 items, Technological Content Knowledge (TCK) with 4 items, and Technological Pedagogical and Content Knowledge (TPACK) with 5 items. The instrument uses a self-assessment scale from 1 (strongly disagree) to 5 (strongly agree). Before the instrument is tested, the instrument is consulted with experts to see the suitability of the instrument with the research objectives. Fifty teachers

participated in the TPACK instrument testing. Instrument analysis included internal consistency and confirmation analysis to ensure validity and reliability. SPSS 26 was used for data analysis, and invalid items were removed. Cronbach's alpha indicated high consistency, with a total scale score of 0.875. Reliability by subscale was as follows: TK (0.617), PK (0.361), CK (0.689), TPK (0.600), PCK (0.510), TCK (0.582), TPACK (0.583). Validity testing with the Kaiser-Meyer-Olkin (KMO) test yielded a result of 0.521, and Bartlett's test had a significance of $0.000 < 0.05$. Subscale KMO values were: TK (0.512), PK (0.551), CK (0.585), TPK (0.589), PCK (0.530), TCK (0.556), and TPACK (0.625), indicating acceptable validity.

Data Collection Procedure

Data collection took place over three months, from May to July 2023. Teachers' TPACK abilities were assessed through self-reflection by completing a reliable and valid questionnaire. The online questionnaire was distributed via SurveyMonkey (accessed from May to July 2023). The survey link was shared through the Aceh Provincial Education Office via WhatsApp and Telegram groups. Participants were informed about their anonymity and data confidentiality at the beginning of the questionnaire. They were assured that their responses would be used solely for research purposes and published in scientific journals. Teachers who agreed to these terms proceeded to the main questionnaire, while others could leave the survey. A total of 500

teachers participated within the three-month period. The 48-item questionnaire responses were analysed using descriptive statistics.

Data Analysis

Data analysis was conducted using SPSS 26 for Windows. The application was used for data entry and analysis. Demographic data were analysed descriptively by calculating frequencies, means, and standard deviations for each subvariable of teachers' TPACK abilities. Normality of responses for each item was tested using the Kolmogorov-Smirnov test. The result with a significant value of $p < 0.05$ ($p = 0.000$) indicated non-normal distribution across variables TK, PK, CK, TPK, PCK, TCK, and TPACK. The Kruskal Wallis test was used to analyse the variable length of teaching. The Kruskal Wallis test is a non-parametric statistical test that is appropriate for data

that is not normally distributed (Charles et al., 2022). Furthermore, the reason for choosing the Kruskal Wallis method is that in the data study there are 3 independent groups (teaching experience < 3 years, teaching experience 3-5 years, and teaching experience > 5 years) so that the Kruskal Wallis analysis method is appropriate for analyzing the character of the research data and the analysis objectives to be achieved. Furthermore, the non-parametric Mann-Whitney U test was used for the teacher certification variable.

RESULTS AND DISCUSSION

Result

Teachers' TPACK Ability Level

The statistical data obtained from respondents was analysed using descriptive statistics to answer the question of teachers' TPACK ability (Table 3). The results show

Table 3
Teachers' TPACK ability level in terms of teachers' years of experience and teachers' certification training Programme experience

TPACK Ability M(SD)	Years of Teaching Experience M(SD)			Teacher Certification	
	< 3 years	– 5 years	> 5 years	Participated	Not Participated
TK 58,45 (10,313)	64,59 (4,953)	62,32 (3,550)	38,48 (5,519)	54,72(12,570)	62,42(4,591)
PK 24,13 (4,508)	16,58 (3,449)	25,61 (2,651)	26,64(1,880)	25,96(1,891)	22,19(5,560)
CK 25,28 (3,015)	24,67 (3,177)	25,40(3,106)	25,28(3,015)	25,43(2,107)	25,13(3,748)
TPK 16,00 (3,698)	17,79 (1,508)	17,29(2,307)	16,00(3,698)	14,44(3,925)	17,67(2,545)
PCK 29,15 (4,244)	25,23 (5,643)	30,49(3,348)	29,15(4,244)	29,45(2,285)	28,83(5,616)
TCK 15,94 (3,539)	17,95 (1,718)	16,97(2,196)	15,84(3,539)	14,53(3,911)	17,24(2,407)
TPACK 18,51 (4,685)	17,55 (3,323)	20,78(3,301)	18,51(4,685)	17,86(4,989)	19,21(4,236)

that, in general, the value of teachers' TPACK ability is high. If the teacher's ability in each sub-variable is sorted from highest to lowest, namely: TK (M = 58,45 SD=10,313), PCK (M = 29,15 SD=4,244), CK (M = 25,28 SD=3,015), PK (M = 24,13 SD=4,508), TPACK (M = 18,51 SD=4,685), TPK (M = 16,00 SD=3,698), and TCK (M = 15,94 SD=3,539).

Exploring Teachers' TPACK Ability by Years of Teaching Experience

The Kruskal-Walli's test was used to analyse differences in teachers' TPACK ability based on years of teaching experience. We divided the teachers into three groups: those with teaching experience of < 3 years, 3-5 years, and > 5 years. The three-year division is based on previous research that suggests differences in teaching ability within these timeframes (Graham et al., 2020). The results show significant differences in TK, PK, TPK, PCK, TCK, and TPACK. However, there is no difference in CK ability based on years of teaching experience. The

descriptive statistical results of teachers' TPACK abilities based on their length of teaching experience can be seen in Table 4.

Table 4 shows that the probability values for TK, PK, TPK, PCK, TCK, and TPACK variables with a significance level < 0.05 indicate score differences based on years of teaching experience. Only CK does not show a significant score difference based on teaching experience. For further analysis of score significance differences, pairwise comparisons were used. Table 5 shows the pairwise comparisons for years of teaching experience.

Table 5 shows the pairwise comparisons of TPACK for different teaching experience lengths. In general, there are significant comparisons among the three groups of teaching experience. Teachers with 3–5 years of teaching experience generally scored the highest, particularly in CK, PCK, and TPACK abilities. Additionally, the highest difference in TK score was observed between teachers with <3 years and >5 years of teaching experience, with a difference of 26.11%. For PK, the most

Table 4
Teachers' TPACK ability in terms of teachers' years of experience

Independent Variable	Dependent variable	Mean Rank			X ²	df	P*
		< 3 years	3-5 years	> 5 years			
Years of Teaching Experience	TK	355,30	277,80	46,91	239,443	2	0,000
	PK	55,75	283,75	332,08	214,973	2	0,000
	CK	222,93	259,85	245,65	4,854	2	0,088
	TPK	312,66	288,45	52,87	210,669	2	0,000
	PCK	137,13	300,33	190,32	111,050	2	0,000
	TCK	341,46	279,91	53,59	221,644	2	0,000
	TPACK	203,74	318,96	56,42	245,410	2	0,000

Note. p<0,05

Table 5
Pairwise comparisons result for years of teaching experience

Years of Teaching Experience			Mean Difference	P*
TK	< 3 years	3-5 years	2,26	0,000
		> 5 years	26,11	0,000
	3-5 years	> 5 years	23,85	0,000
PK	< 3 years	3-5 years	9,03	0,000
		> 5 years	10,07	0,000
	3-5 years	> 5 years	1,03	0,004
TPK	< 3 years	3-5 years	0,50	0,123
		> 5 years	8,17	0,000
	3-5 years	> 5 years	7,67	0,000
PCK	< 3 years	3-5 years	5,26	0,000
		> 5 years	3,21	0,000
	3-5 years	> 5 years	2,05	0,000
TCK	< 3 years	3-5 years	0,97	0,000
		> 5 years	8,26	0,000
	3-5 years	> 5 years	7,29	0,000
TPACK	< 3 years	3-5 years	3,23	0,000
		> 5 years	6,08	0,000
	3-5 years	> 5 years	9,31	0,000

Note. $p < 0,05$

significant difference was between teachers with <3 years and >5 years of teaching experience, at 10.07%. For TPK, an in-depth analysis revealed no significant difference between teachers with <3 years and 3–5 years of teaching experience ($p > 0.05$; 0.123). The most significant difference in PCK was observed between teachers with <3 years and 3–5 years of experience, at 5.26%. The highest difference in TCK was observed between teachers with <3 years and >5 years of teaching experience, at 8.26%. Finally, teachers with 3–5 years of experience had the highest difference in TPACK ability compared to teachers with >5 years of experience, with a percentage difference of 9.31%.

Exploring Teachers' TPACK Ability by Participation in Teacher Certification Training Programme

The Mann-Whitney U exam was used to determine the differences in TPACK teacher abilities in terms of their participation in the teacher certification training Programme. The independent variable tested has attended a teacher certification training Programme and has never participated in a teacher certification training Programme. Table 6 shows the Mann-Whitney U test results.

Table 6 shows that there are significant differences in teachers' TPACK abilities in terms of teachers' certification training Programme experience. This can be seen in the scores of TK, PK, TPK, PCK,

Table 6
Mann-Whitney U test results for teachers' tpack based on participation in teacher certification Programme

Independent variable	Dependent variable	Mean Rank		Man, Whitney U	Wilcoxon W	Z	edP*
		Has participated	Never				
Teachers' certification training Programme experience	TK	218,00	285,15	22833,000	56244,000	-5,204	0,000
	PK	291,20	207,11	20717,500	50120,500	-6,538	0,000
	CK	242,52	259,01	29159,500	62570,500	-1,285	0,199
	TPK	183,75	321,67	13995,500	47406,500	-10,752	0,000
	PCK	236,84	265,06	27694,000	61105,000	-2,192	0,028
	TCK	197,69	306,80	17594,000	51005,000	-8,532	0,000
	TPACK	237,32	264,55	27817,500	61228,500	-2,115	0,034

Note. $p<0,05$

TCK, and TPACK. Meanwhile, there is no significant difference in the CK. It can be concluded that the ability of teachers in content knowledge does not differ between teachers who have participated in the teacher certification training Programme and those who have never participated in the teachers' certification training Programme. Based on the mean rank value, teachers who have participated in the eacher certification training Programme have an advantage in PK skills.

DISCUSSION

This study investigated the TPACK ability of 500 teachers (RQ1). We decided to conduct three classifications based on the teachers' years of experience (<3 years, 3 - 5 years, and >5 years) based on previous research findings that there are differences in teaching ability based on these intervals. From the data on teachers' TPACK ability, we explored whether years of teaching experience and certification training Programme experience affect teachers'

TPACK ability. The results stated that there are differences in TK, PK, TPK, PCK, TCK, and TPACK when viewed from the teachers' years of experience (RQ2). Furthermore, the results of TK, PK, TPK, PCK, TCK, and TPACK show that there are differences between teachers who have attended in the teachers; certification training Programme and those who have never attended in the teacher certification training Programme.

Teachers' TPACK Ability Level

Teachers' abilities are classified in the highest category. More in-depth analysis resulted in an average score approaching a maximum score of 58.45, which is 75. Teachers rated their TK's abilities highly. This result was the same finding from research (Schmid et al., 2021) that mentions that teachers' TK was high. One of the main factors supporting this is teachers' widespread access to technology and basic computer software such as Microsoft Word and PowerPoint (Joo et al., 2018; Sami Novita et al., 2020). In addition, the trend

of owning the latest devices among teachers indicates their efforts to stay abreast of technological developments (Joo et al., 2018) and have started upgrading with learning technologies in the classroom, such as using laptops as learning media and learning resources (Blass & Köhler, 2019; Smith et al., 2022). Teachers have also become accustomed to operating learning support devices such as projectors and printers, which further strengthens their mastery of the technological aspects of TPACK.

However, further analysis shows that CK (Content Knowledge) ability is also one of the strongest aspects of teachers' TPACK, in accordance with the research findings (Akun & Mohammad, 2021). CK's ability is associated to teachers' academic background and scientific specialisation, so they have a strong understanding of learning content and are able to develop materials in depth. In addition involvement in professional communities in their respective fields allows teachers to continuously update their knowledge through regular meetings and discussions (Harro-Loit et al., 2021).

However, PK ability showed lower scores than other aspects, indicating challenges in pedagogical aspects (Sasmito et al., 2020). Teachers' PK ability is knowledge related to practice in teaching, including knowledge of student learning needs and accuracy of selection learning methods, as well as assessment of learning according to student needs (Embacher & Smidt, 2023; Gavriluyuk et al., 2019; Harding et al., 2019). The findings show that

teachers are still not accustomed to the new curriculum, so they still need customisation. Especially in Indonesia, curricula have been upgraded since 2020 to be called "Kurikulum Merdeka," so educational policies require teachers to have the ability to implement learning according to student needs and study analysis (Institut Agama Islam Negeri Curup, 2023; Sari et al., 2022). Besides, teachers are not accustomed to conducting various evaluations of teaching and teaching methods (Sari et al., 2023).

Interestingly, although teachers' PK ability was low, teachers have quite good performance in integrating technology into learning. It's seen in the teacher's quite high TPK ability. TPK is the ability to integrate tools and technologies that match learning design to learning goals. (Akyuz, 2018). Teachers are already able to understand the advantages and disadvantages of the technology used so that they can choose the appropriate technology for teaching. TPK abilities are skills that relate to the general understanding of strategies applied in the use of technology in learning activities. These findings seem to contradict each other. This finding presents an interesting paradox, given that generally mastery of technology in learning often goes hand in hand with a strong pedagogical understanding (Peng et al., 2019). Furthermore, some other research also mentions that the ability to teach teachers in the 21st century requires teachers to be able to integrate technology into the teaching activity process (Sari et al., 2023).

The findings of this study have significant implications for teacher education, professional development Programmes and

education policy. The high TK rate indicates that teacher access to technology and digital learning is not a barrier. Professional development initiatives must focus on deeper technological integration. Training Programmes must improve teaching practices using new technology tools. The lower PK scores indicate that teachers face challenges in adapting to the demands of an ever-evolving curriculum. This requires intervention in teacher training, namely pedagogical strategies, management classes and structured mentoring. Especially in the “independent curriculum” there is a need for structured training and mentoring Programmes to help teachers transition well.

Teachers' TPACK Ability by Years of Teaching Experience

The results of the research showed that almost all the teacher's TPACK abilities, when reviewed from teachers' years of experience, showed significant differences. TK, PK, TPK, PCK, TCK and TPACK abilities show variations that reflect how teaching experience influences mastery of the various dimensions of TPACK. In this case, teachers with teaching experience > 5 years have superiority in PK compared to junior teachers (3-5 years and < 3 years of teaching experience). However, in the ability of TK, TPK, and TCK, the < 3-year teacher experience is better than that of the senior teacher (3-5 and > 5 years of experience teacher). If reviewed based on PCK and TPACK abilities, teachers with 3–5 years of teaching experience have an advantage over teachers with < 3 years and > 5 years of teaching experience.

When analysed further, this finding strengthens the argument that teaching experience contributes significantly to improving teachers' PK. Teachers with more experience tend to be more skillful in choosing learning methods, managing the classroom, evaluating learning, and adapting teaching approaches to students' needs (Hsu et al., 2021; Antony et al., 2019). Senior teachers have more experience dealing with different types of student learning styles and student learning problems (Podolsky et al., 2019). This indicates that teaching experience not only contributes to strengthening pedagogical skills but also increases teachers' flexibility and effectiveness in promoting student engagement. Compared to teachers with lower teaching experience (especially < 3 years), senior teachers are more able to control themselves and manage the classroom. The research findings are similar to previous research from (Graham et al., 2020). Senior teachers have a better attitude toward comprehending the qualities of their students. So, the teaching attitude of senior teachers is more flexible to encourage according to the learning purpose.

Other research findings show that teachers with < 3 years of teaching experience have superior abilities over TK, TPK, and TCK. This is in line with other studies that show that the more senior teachers have teaching experiences, the less teachers can use technology to support learning (Scherer et al., 2018). The findings also show that junior teachers have technological knowledge and the ability to

integrate technology into learning as well as learning content. Technological knowledge skills require teachers to understand the basic knowledge of technology. The average junior teacher has a younger age (20–30 years old). Young teachers have basic knowledge of technology and updates on the latest technological developments (Caena & Redecker, 2019). Young teachers can use social media platforms to update information related to learning as well as knowledge related to new technologies that teachers can use in teaching in the classroom (Falloon, 2020). Teachers with < 3 years of teaching experience have also followed the education of pre-service teachers whose educational material has directed them toward the use of technology. Therefore, junior teachers are accustomed to using technology in the training activities of candidates followed (Kong et al., 2020). This is different from senior teachers (> 5 years), despite having pedagogical excellence, generally have not fully integrated technology in learning. This suggests a gap in the application of technology among senior teachers, which could be an obstacle in supporting technology-based learning. Therefore, more specific training is needed for teachers with >5 years of experience to improve their competence in utilising technology to improve learning quality and self-efficacy in its use.

Although there are significant differences between TK, PK, TPK, PCK, TCK, and TPACK, the teacher's CK abilities have not been found to be significantly different from the teacher's

years of experience. This suggests that content mastery is more influenced by academic background and formal training than length of teaching experience. The teacher's CK abilities relate to the subjects taught and are related to the specifications of the teacher's education. The difference in teacher knowledge specifications is caused by formal education when achieving a bachelor's degree in education. Teachers in various teaching experiences tend to have mastered basic concepts in their fields of science before graduating from formal education. Therefore, teachers have their advantages in specific subjects taught, and this also relates to the education and training of teachers in each subject (Falloon, 2020). Furthermore, related to the dynamic context of the material, teachers continue to update and deepen it through various activities such as group discussions for teachers in each subject, workshops, and academic forums. The findings are also due to the teachers' monthly gathering activities on each subject, so teachers are constantly updating resources that support the development of learning content. Furthermore, the presence of conference activities in the subject areas taught by teachers also affects CK's ability. Previous research from (Amhag et al., 2019) mentions that the development of teacher skills in each subject can be enhanced by holding scientific meetings. This greatly supports the emergence of the latest developments in the discipline of teacher science so that both new and old teachers have relatively equal access to CK developments. Furthermore, along with

increasing teaching experience, teachers focus more on developing pedagogical and technological aspects. Teachers with a long teaching experience tend to emphasise more on learning strategies, classroom management, and management of the learning environment (Ball et al., 2008). Furthermore, in some subjects in schools, nature is static, so most teachers are still required to teach basic concepts that are more static. Therefore, teachers with longer teaching experience are not higher than junior teachers because the source of teacher knowledge is still the same from the early education period. This is emphasised by (Baumert et al., 2010) said that teachers depend more on academic education than on the length of teaching experience. Therefore, teacher training Programmes require more intervention.

The findings not only strengthen the understanding of how teaching experience influences various aspects of TPACK but also reveal an interesting paradox: senior teachers are superior in PK but less adaptive in technology, while junior teachers are more proficient in technology but have limitations in pedagogical aspects. Therefore, the results of this study provide important implications for education policy, especially in designing more targeted training Programmes to ensure a balance between pedagogy and technology in learning.

Teachers' TPACK Ability by Participation in Teacher Certification Training Programme

The results of this study explicitly confirm the differences in teachers' TPACK abilities

based on their experience in participating in the teacher certification training Programme. This can be seen in the capacity of TK, PK, TPK, PCK, TCK, and TPACK. Meanwhile, the ability of TK and TPK had a very high difference effect with a significance of 0,000, ($p < 0.05$). which shows that the technological knowledge of the teachers who have not participated in teacher certification training is superior to that of those who have already undergone teacher certification training Programmes. It appears that the findings of this study are in contrast to previous research findings that explained the impact of improving the quality of teaching through the use of technology for teachers who follow teacher training. However, this finding does not necessarily negate the benefits of certification training but rather highlights other factors that contribute to the differences, namely, age and exposure to technology in daily life. Non-certified teaches is a teacher with < 3 years of experience who is accustomed to using technology in everyday life, including in teaching activities. As described by (Joo et al., 2018), young teachers are close to the use of technology to facilitate the delivery of content on subjects (Spiteri & Chang Rundgren, 2020). Among these findings is the ability to integrate technology into learning, which can be seen in the teacher's ability to choose and use technology to support student learning. Teachers who have not attended the teacher certification training Programme are also better able to use computer applications to deliver learning material on each subject. Using technology can help teachers deepen material content

by joining online teaching sites and holding discussions with colleagues on the platform (Faridah et al., 2020; Majeed & ALRikabi, 2022). Therefore, these findings challenge the assumption that certification training automatically improves teachers' technological competence, while also indicating a potential gap between the substance of training and the real needs of teachers in the digital era.

Another significant difference is seen in the PK ability. However, unlike previous findings, teachers who have attended teacher certification training Programmes were far superior. The research result is the same as the research (Fernandes et al., 2019; Wu et al., 2022) which confirms that certification training plays a crucial role in improving teachers' pedagogical skills, such as selecting appropriate learning strategies, classroom management, and effective evaluation methods. The teacher's ability to manage the classroom is an important skill that the teacher possesses (Salifu & Abonyi, 2023). In this case, certification training provides practical insights that not only equip teachers with teaching theory, but also train them in dealing with real situations in the classroom, whether in conventional, laboratory, or project-based and experimental environments (Pozo-Rico et al., 2020). As a result, certified teachers are more confident in carrying out their role as learning facilitators, as well as better prepared to manage classroom dynamics effectively.

The findings also showed that there was a difference between the PCK and

TPACK abilities reviewed based on the teachers' certification training Programme experience, even though the effect was small. Teachers who have not attended certification training Programmes have better PCK and TPACK skills scores than ever before. This is due to teacher certification training Programmes, which focus on the development of teacher teaching skills. Teachers follow the instructions without looking at the subject matter taught. Thus, in the training Programme, regular teaching skills are taught, such as recognising the characteristics of students and choosing the right learning strategy to achieve learning goals. PCK ability is seen from the teacher's ability to choose teaching strategies according to the content of the subject (Aumann et al., 2023; Spiteri & Chang Rundgren, 2020). PCK abilities are taught when pre-service teachers pursue a bachelor's degree. So fresh-graduate teachers are more confident and can link the content of the learning material to the conditions of the contextual environment. Furthermore, the teachers' TPACK ability of those who have not attended the teacher certification training Programme was higher than that of those who have attended the teacher certification training Programme. Tpack's ability to integrate learning methods and technology into material content areas (Nuruzzakiah et al., 2022; Tseng et al., 2022). Teachers who have not attended were mostly teachers with less than 5 years of teaching experience, so they are better able to apply a variety of computer software.

Based on the findings of the research, there is a need for teachers to receive

training materials on the use of technology in learning. It is important to accelerate the digital competence of teachers. Meanwhile, the rapid development of technology must be able to respond to the existing training challenges, so there is a need to update the teachers' training curriculum.

Theoretical Contribution

This study significantly contributes theoretically to the development of the TPACK framework, especially in the context of the relationship between teaching experience and participation in teacher certification training. Based on the field findings, TPACK is not a teacher ability that can develop dynamically along with the various experiences that teachers have had, especially in the context of teaching experience and teacher involvement in professional training. This is in line with the TPACK development approach by (Hsu et al., 2021) which states that as a dynamic skill framework, TPACK emphasises the importance of contextual and reflective training on experiences so that it can further shape TPACK competencies.

This study also expands the dimensions of TPACK by integrating the theory of professional learning development which states that teachers' ability to utilise technology is not only determined by access to tools, but also due to continuous practical experience in learning (Li et al., 2022). As the research found, teachers with 3-5 years of teaching experience have superior TPACK performance compared to teachers with <3 years and >5 years of experience.

This finding is interesting in that it provides a new perspective in understanding TPACK, namely that there is an optimal transition phase in the early years of teaching, namely the formation of a balance of technological, pedagogical and content knowledge.

Furthermore, this study contributes to transformative learning (Pozo-Rico et al., 2020) in teacher education by showing that participation in certification training affects mastery of pedagogical skills (PK), although not as much as the technological dimension (TK). This shows that conventional certification training tends to be oriented towards pedagogical skills and does not fully support the needs of teachers in integrating technology in learning. Through this research, it can encourage innovation in the substance of 21st century teacher training in order to adopt the use of technology in learning contextually.

Therefore, based on the findings of this study, it has a theoretical contribution to the mapping of teachers' TPACK ability differentiation based on teaching experience and professional training, which is the basis for the formation of TPACK theory based on experience cycles and targeted training interventions. This research also provides a theoretical basis that can be used for teacher training curriculum designers to be able to design adaptive training according to the needs and characteristics of diverse teachers.

CONCLUSION

This study aims to analyse teachers' TPACK (Technological, Pedagogical, and Content

Knowledge) skills and to identify differences in teachers' TPACK abilities based on varying levels of teaching experience and participation in teacher certification training. The results show that teachers' TPACK skills are generally good, particularly in TK (Technological Knowledge) and CK (Content Knowledge). The study also indicates differences in TPACK skills depending on teaching experience and certification training participation. For teaching experience, differences are observed in TK, PK (Pedagogical Knowledge), TPK (Technological Pedagogical Knowledge), PCK (Pedagogical Content Knowledge), TCK (Technological Content Knowledge), and TPACK, especially between those with less than 3 years of experience and those with over 5 years. The findings also reveal differences in the components TK, PK, TPK, PCK, TCK, and TPACK when considering certification training experience, particularly in TK, TPK, and TCK. However, CK skills do not significantly differ based on either teaching experience or certification training participation.

This study has both theoretical and practical implications. In general, this study highlighted the differences between teachers' TPACK abilities in terms of teaching experience and participation in teacher certification training. This study has presented specific empirical evidence through a local approach so that this study can bridge the gap between general TPACK findings and application in various educational settings. In addition, the results of this study are very revealing

of the differentiation that occurs between teachers so that it becomes clear from the professional development pathways in TPACK enhancement. In addition, in general, the findings of this study provide insights for curriculum policy makers and teacher training institutions to highlight the effectiveness of training Programmes, so this study informs future teacher training curriculum design needs.

Recommendations

This study offers recommendations for teachers and trainers in teacher certification Programmes. Based on the findings, technological integration in teaching is notably stronger among teachers with less than 3 years of experience, followed by those with 3-5 years. Therefore, greater focus on technology use in teaching should be given to teachers with more than 5 years of experience. Teaching experience relates to teaching motivation for teachers, so skill upgrading is necessary, particularly for more senior teachers. Another finding is that teachers who have participated in certification training actually have lower TPACK skills compared to those who have not. Thus, the second recommendation is to update the curriculum for teacher certification training by integrating technology into teaching. Trainers responsible for teacher professionalism training must include content related to knowledge of computer applications and technology integration in teaching. Finally, to support 21st-century learning, teacher proficiency in using technology needs greater emphasis from

the curriculum developers for teacher professional development, ensuring that teachers become familiar with technology in teaching.

Some of the main limitations of this study include sample representativeness and potential bias in the reported research data. Although we used a fairly large sample, this study only covered teachers in the Aceh region, so generalisation of research findings needs to be done more carefully. Furthermore, another limitation is that the data was collected through a questionnaire that relies on teacher perceptions, so the potential for reporting errors and social bias is very high. Therefore, suggestions for further research, namely using interviews, tests, or direct observation to increase the validity of the findings.

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“Killing the Dancer”: Asymmetrical Metre and the Transformation of Tradition in a Balinese Dance Composition

I Gde Made Indra Sadguna^{1*}, I Made Kartawan¹, Made Ayu Desiari², and
Ida Bagus Hari Kayana Putra³

¹Karawitan Study Programme, Faculty of Performing Arts, the Indonesian Institute of the Arts (ISI) Bali, Jalan
Nusa Indah, 80235 Bali, Indonesia

²Dance Study Programme, Faculty of Performing Arts, the Indonesian Institute of the Arts (ISI) Bali Jalan
Nusa Indah, 80235 Bali, Indonesia

³Film and Television Production Study Programme, Faculty of Fine Arts and Design, the Indonesian Institute
of the Arts (ISI) Bali, Jalan Nusa Indah, 80235 Bali, Indonesia

ABSTRACT

Tradition is not a stagnant entity but a dynamic process of transformation. Ethnomusicologist Michael Bakan (2019) describes tradition as a “creative transformation whose most remarkable feature is the continuity it nurtures and sustains.” This study investigates the transformation of the traditional Balinese *gilak* structure into the asymmetrical *gegilakan* by analysing I Ketut Gede Asnawa’s *Egar Abinawa*. Composed as an accompaniment for Topeng Keras an improvisatory dance, *Egar Abinawa* challenges dancers to navigate irregular metres—a departure from the predictability of *gilak*. This research combines ethnomusicological fieldwork, musical analysis, and Balinese notational systems to dissect the *gilak* and its transformation. This paper will analyse two important issues: firstly, understanding the intersection of tradition and transformation in Balinese musical forms; and secondly, probing Asnawa’s provocative concept of *ngematiang pregina* (“killing the dancer”). This metaphor encapsulates the challenge posed to dancers habituated to *gilak*, compelling them to transcend ingrained rhythmic instincts and engage creatively with the unfamiliar

gegilakan framework. Through *gegilakan Egar Abinawa*, tradition is not merely preserved but transformed, demonstrating how asymmetrical metre can serve as a catalyst for artistic growth. This composition underscores the evolving nature of Balinese music and dance, where innovation breathes new life into heritage.

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E-mail addresses:

indrasadguna@isi-dps.ac.id (I Gde Made Indra Sadguna)

madekartawan@isi-dps.ac.id (I Made Kartawan)

ayudesiari@yahoo.co.id (Made Ayu Desiari)

harikayana@gmail.com (Ida Bagus Hari Kayana Putra)

*Corresponding author

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INTRODUCTION

Music in Bali is omnipresent, permeating every aspect of life on the island. Renowned for its rich cultural heritage, Bali places significant importance on music, which plays a crucial role not only in social and religious rites but also in secular activities. In the religious domain, Balinese music, commonly known as gamelan, is indispensable for the thousands of ceremonies conducted throughout the year. “At a plethora of traditionally mandated religious events, the gods descend in numbers to inhabit their designated shrines for the length of the festivities, awaiting the lavish musical entertainments that their village hosts are expected to provide” (Tenzer, 1991, p. 12). The sound of the gamelan ensemble, with its vibrant and intricate compositions, reflects music’s centrality in connecting Bali’s spiritual and material worlds.

Before the 20th century, Bali had already developed a wide array of gamelan ensembles, including Gong Gede, Gambang, Pagambuhan, Selonding, Angklung, Gong Luang, and Gender Wayang, each serving specific ceremonial and cultural purposes. During this period, individual attribution in music was virtually nonexistent. Creative works were seen as communal offerings shaped by collective tradition rather than personal ownership. Musicians were often patronised by local kingdoms, and claiming individual credit for compositions was considered culturally inappropriate. This paradigm began to shift in the early 20th century when I Wayan Lotring emerged as

Bali’s first formally recognised composer.¹ His groundbreaking work marked a turning point in Balinese music, introducing a new era where composers were celebrated for their contributions.

Despite this shift, the essence of Balinese composition remains deeply rooted in its musical tradition. As Bruno Nettl observes, composers do not create music from nothing but instead draw from cultural “building blocks” that have been passed down through generations (Nettl, 2015). These foundational elements are reimagined and transformed, imbuing new compositions with both innovation and continuity. Christopher Adler elaborates, stating, “The act of composing is an engagement with hybridity. Every composer must mediate between the diverse influences, intentions, theories, and emotions impinging upon the compositional moment” (Adler, 1998, p. 1). In Bali, gamelan composers exemplify this process by honoring traditional forms while reshaping them into new expressions. Furthermore, ethnomusicologist Michael Bakan states that “tradition here is conceived of as a process, in particular a process of creative transformation whose most remarkable feature is the continuity it nurtures and sustains” (Bakan, 2019, p. 30). Tradition is not stagnant; rather, it moves and transforms into new works of art.

¹ Lotring’s acclamation as a composer title is believed to be influenced by his American colleague, Colin McPhee. Discussions on Lotring’s history, life, and works have been researched by numerous scholars (see Harnish, 2000; Herbst, 2015; McPhee, 1964; Tenzer, 2000)

The scholarship on Balinese composers and their works has long captivated the field of ethnomusicology. Traditional compositions were extensively examined by figures such as Asnawa (1991), Bandem (2013), McPhee (1964), Rai (1996), Sadguna (2010), and Sudirana (2013b), offering profound insights into the roots of Balinese music. This foundation was later expanded with discussions on neo-traditional compositions by scholars like Bakan (1999), Roeder and Tenzer (2012), Senen (2002), Sukerta (2009), and Tenzer (2000). More recently, contemporary works have been explored by researchers such as McGraw (2005, 2009, 2013, 2014), Smith (2019), Sudirana (2013a, 2020, 2024), Sugiarta (2012), Tenzer (2018), and Yuwell (2021), each contributing invaluable perspectives that highlight the evolving complexity and innovation in Balinese musical composition.

Building on this extensive body of scholarship, this article explores a new musical structure known as *gegilakan*, which emerges as a transformation from one of the most established forms in the Balinese gamelan tradition: *gilak*. Traditionally, *gilak* is defined by its distinct 8-beat colotomic structure. However, our research has uncovered innovative developments that extend and reshape its foundational elements. The term *gegilakan* signifies both continuity and transformation, indicating a compositional structure that maintains a connection to *gilak* while introducing new dimensions. This structural transformation can be observed in new compositions across

various Balinese ensembles, including Baleganjur, Gong Kebyar, Gong Gede, and Semar Pagulingan. Rather than proposing an entirely new terminology, we use *gegilakan* as a conceptual bridge to discuss recent trends among Balinese composers experimenting with asymmetrical metres, diverging from the traditional framework of *gilak*.

This transformation of a traditional structure into innovative forms is not unique to Balinese music; similar phenomena have also occurred in the Western music. For instance, Igor Stravinsky's *Rite of Spring* (1913) was revolutionary for its time, breaking away from traditional, predictable rhythms and metres with its complex, dynamic structures. Another example is Paul Desmond's *Take Five* (1959), famously recorded by the Dave Brubeck Quartet. This iconic jazz composition stood out due to its unconventional 5/4 time signature, a bold departure from the prevailing 4/4 or 3/4 metres of its era (Ramsey, 2005). These examples highlight how composers across cultures innovate by challenging and diverging from traditional norms. Similarly, *gegilakan* represents a Balinese parallel to this creative spirit, where composers reimagine the conventional 8-beat framework of *gilak* to explore new rhythmic and structural possibilities.

Situated within the broader context of the cross-cultural rhythmic innovation, this article analyses a new *gegilakan* composition for Topeng Keras accompaniment, *Egar Abinawa*, which features an asymmetrical 20-beat cycle.

Composed by I Ketut Gede Asnawa in 2018 for the Bali Arts Festival, it reflects Asnawa's longstanding engagement with traditional, neo-traditional, and contemporary styles. Granted complete creative freedom, Asnawa chose to compose within a conventional idiom while simultaneously pushing its boundaries. *Egar Abinawa* stands out as one of the rare instances—if not the only one—where *gegilakan* is used to accompany an improvisational dance form.

This shift toward asymmetrical structures is driven by an emerging artistic imperative to challenge conventional expectations within Balinese performance practice. While *gilak* patterns remain deeply embedded in the cultural fabric, many composers and performers regard them as increasingly predictable and formulaic, restricting the possibilities for creative expression. The drive toward innovation is further propelled by heightened exposure to global music scenes, academic discourse, and intercultural artistic experimentation. Within this evolving landscape, composers such as Asnawa aim not only to honor tradition but also to interrogate and disrupt it, urging performers to reevaluate their embodied musical instincts and engage more deliberately with unfamiliar and evolving musical forms.

Asnawa's approach embodies this dual commitment to innovation and cultural continuity. His intent to *ngematiang pregina* ("killing the dancer")—a metaphorical disruption of the dancer's habitual reliance on familiar rhythms—invites both performers and choreographers to

reengage with their practices in new ways. This article explores how such compositional strategies provoke shifts in embodied performance and what it means to navigate the tension between tradition and transformation in the contemporary Balinese dance accompaniment.

Through a close analysis of this piece, the study uncovers the artistic and cultural implications of Asnawa's *gegilakan* composition and how it reshapes the relationship between music and dance in Balinese tradition. Drawing on ethnographic fieldwork, musical transcription, and close collaboration with performers, the study demonstrates how asymmetrical form unsettles habitual modes of interaction, prompting new forms of musical-dance dialogue. Ultimately, the study argues that *gegilakan* operates not only as a formal innovation but as a culturally situated intervention, revitalising performance practices and reasserting the vitality of tradition through acts of creative disruption.

METHODOLOGY

This study adopts an ethnomusicological approach, blending ethnographic fieldwork with in-depth musical analysis to understand its subject comprehensively. The fieldwork involves interviews with key figures selected based on their competence, including I Ketut Gede Asnawa, the composer; Putu Adi Sujana, the topeng dancer; and other musicians and dancers specialising in *gilak* and its accompanying dances. The researchers themselves are long-time Balinese music and dance practitioners, with

extensive experience working professionally with *gilak* forms. This positionality informs their methodological choices and interpretive framework, grounding the research in both scholarly inquiry and embodied knowledge. A comprehensive literature review supports the study, highlighting its originality and situating it within the broader context of existing scholarship.

A central component of this methodology is transcribing oral musical traditions into written form, a process essential for thorough analysis. As Arom emphasises, “It [music] would seem extremely difficult to analyse in depth unless first reduced to the form of a written score, i.e., a transcription in the case of music from an oral tradition” (Arom, 1991, p. 94). Notating the music will utilise the Balinese notational system called the *Ding-dong*, which derives from traditional Balinese letters called *aksaras*, which can be seen in Table 1. This system captures relative note positions within a scale rather than fixed pitches, accommodating the unique tuning variations among Balinese gamelan ensembles. Additionally, cipher notation is utilised for clarity, particularly for readers unfamiliar with Balinese *aksaras*.

Table 1
Notation system

Balinese Aksara	Cypher Notations	Read
ꦺ	1	Nding
ꦴ	2	Ndong
ꦶ	3	Ndeng
ꦸ	5	Ndung
ꦺꦴ	6	Ndang

Besides the *Ding-dong* and cipher notations, additional symbols are utilised to represent musical elements: parentheses () to signify gong strokes, dashes (–) for kempli strokes, and plus signs (+) for kempur strokes. Rests are marked with periods (.), while brackets [] indicate repeating sequences. Importantly, *kajar* strokes occur on every beat and are excluded from the notation for simplicity. Sections of the music are labelled with abbreviations to streamline analysis: “M” for the main melody, “KW” for the Kendang Wadon section, “KL” for the Kendang Lanang part, “Da” for the dancer’s movements, “CM” referring to the common 16-beat melodic line, and “EA” referring to *Egar Abinawa*.

RESULTS AND DISCUSSION

Breaking Down the *Gilak* Structure

Gilak is thought to have originated in the Gong Gede repertoires, where it can be played as an independent piece or serve as part of a larger composition, such as in the *lelambatan* genre.² Besides played for instrumental pieces, *gilak* is used for dance accompaniment, particularly the Baris and Topeng dances. Despite its prominence, the exact meaning of *gilak* remains unclear. It does not appear in ancient *lontar* manuscripts, and for many musicians, the focus lies more on its distinctive colotomic structure than its

² I Nyoman Rembang conducted extensive research transcribing various *lelambatan* pieces across Bali, documenting different types of *tabuhs*.(see Rembang, 1985).

Table 2
Gilak colotomic structure

8	[1	2	3	4	5	6	7	8]
(G) -	[.	-	.	(g) -	+	-	+	(G) -]

etymology. Balinese music scholar I Gede Yudarta speculates that the term *gilak* might stem from *galak*, suggesting qualities like ‘fierce,’ ‘enthusiastic,’ or ‘vibrant.’³ This interpretation aptly reflects the spirited, energetic character of *gilak*, defined by its short *gongan* cycles and brisk, driving tempo.

Traditional Balinese musical structures are mainly cyclic, called *gongan*. To identify the idiosyncrasies of a Balinese gamelan form, we refer to its colotomic structure. “This technique of using gongs to define the form has been dubbed colotomy by Western musicologists; the arrangement of gongs within a melody is referred to as the colotomic structure” (Tenzer, 1991, p. 42). It is determined by the cycle length (number of beats) and how the colotomic instrument markers such as the gong, kempur, kajar, and kempli are distributed (see also Dunbar-Hall, 2006, p. 85; Rai, 2022, p. 38). The colotomic structure of *gilak* can be seen in Table 2.

In the instance of *gilak* as shown in Table 2, the starting and ending point is on the eighth beat, marked by the sound of the large gong with a lower sound called the gong wadon (G). There is also a higher pitch gong, slightly smaller in size, called

gong lanang (g), which is played on the fourth beat. To complete this structure, the medium-sized gong called kempur will be sounded on beats five and seven (indicated by the plus sign +). The kempli played on every even beat (marked as –), while the kajar is played on every beat. This flexibility extends to the melodic aspect, where composers can craft melodies that align with the eight-beat cycle or its multiples. According to Balinese gamelan lecturer I Wayan Suweca, *gilak* melodies often evoke a sense of “returning home,” resolving on the tonic while maintaining dynamic progression.⁴

Drumming further enriches the *gilak* structure, employing two drums: kendang wadon (lower-pitched) and kendang lanang (higher-pitched), which creates an interlocking rhythm known as *geguletan*. The term, derived from *gulet* (“to hug”), symbolizes how the drum patterns tightly interweave (Rai, 2022, p. 38). The patterns of the two drums are shown in the following transcription.

Table 3 demonstrates the rhythmic interlocking between the Kendang Wadon (KW) and Kendang Lanang (KL) in the *gilak* form. “D” and “T” represent the KW’s open and closed right-hand strokes, while

³ Personal communication with I Gede Yudarta on September 19, 2024.

⁴ Personal communication with I Wayan Suweca on August 7, 2024.

Table 3
Geguletan kendang in gilak

	(G) -				[.				-				.			
KW	D	.	T	.	D	.	T	.	D	.	T	.	D	.	T	.
KL	.	d	.	t	.	d	.	t	.	d	.	t	.	d	.	t
	(g) -				+				-				+			
KW	D	.	T	.	D	.	T	.	D	.	T	.	D	.	T	.
KL	.	d	.	t	.	d	.	t	.	d	.	t	.	d	.	t

“d” and “t” denote the KL’s corresponding strokes. Each drum strike aligns with a sixteenth note, with no simultaneous strikes between KW and KL, creating a distinct interlocking pattern. The blue blocks indicate one KW cycle, while the yellow blocks show the KL’s, both spanning four beats. Completing a *gilak* cycle requires two of these drum cycles.

The drummer is regarded as the leader of the musical ensemble, responsible for controlling the music’s dynamics, rhythm, and tempo. In performances that include dance, such as the Topeng Keras, drummers play a pivotal role as the ‘translators’ of the dancer’s movements, transforming them into musical accents. This intricate relationship between dancer, drummer, and musician will be explored in greater depth in the following sections.

Topeng Keras: The Regal Minister

One of the most iconic classical performances in Bali is the topeng dance, where topeng means “mask.” In Balinese, the word for mask is *tapel*. According to Dibia, “*tapel* originates from *tup*, which means to conceal or transform the identity of the person who wears it” (Dibia, 2013,

p. 111).⁵ This transformative quality is at the heart of topeng, where the mask allows the dancer to embody characters and narratives within the performance. Traditionally, topeng is an essential component of Hindu ceremonies in Bali. Without it, a ceremony is considered incomplete.

The common topeng performance consists of two parts: the *panglembar* and the *lampahan*. Dibia (2013, p. 124) describes these sections, noting that “the emphasis of the first part is on dance, unlike the second part, which focuses on drama or telling the story”. The most common *panglembar* dances are Topeng Keras and Topeng Tua, each showcasing a unique style and musical structure. Among the two, Topeng Keras uses *gilak* as its musical accompaniment. Topeng Keras represents a noble character and a person of significant political power in a kingdom. The character is sometimes also referred to as a “prime minister,”

⁵ Numerous scholars have conducted research on topeng performances, but mainly from a performative and dancer perspective (see de Zoete & Spies, 1939; Young, 1980; Bandem & deBoer, 1995; Dibia & Ballinger, 2004; Catra, 2005). If the music is mentioned in these works, it does not go beyond the mentioning of the musical form or the notation of the basic melody.



Figure 1. Topeng Keras character

which represents strength, authority, and governance, shown through the strong yet regal movements. The mask is typically painted red or brown, symbolizing strength and power as seen in Figure 1.

This dance has two widely recognised melodies: one following an eight-beat cycle and the other a sixteen-beat pattern. Both melodies retain the distinctive *gilak* structure, which can be seen in Table 4.

Topeng Keras is an improvisational dance in which the dancer leads⁶, by signaling musical changes through specific cues known as *angsels*⁷. Although drawing from a

repertoire of characteristic stock movements, their timing is not predetermined but shaped by the dancer's movement vocabulary, experience, and the performance context. Training begins with exposure to *gilak*, during which dancers develop an intuitive sensitivity to musical rhythm and flow (*ngerasang gending*). Over time, the music becomes second nature, enabling dancers to execute *angsels* instinctively, with fluidity and precision.

From the drummer's perspective, recognising and responding to various *angsels* is critical. As the ensemble leader and mediator between the dancer and the other musicians, the drummer bears significant responsibility. Tenzer (1991, p. 12) describes this relationship as a "mutually reflective duet." Ensemble members rely on the drummer for guidance, listening for key cues, and often relying on eye contact to maintain cohesion. Given the dance's improvisational nature, drummers must master the nuances of *angsels*, such as *angsel bawak*, *angsel lantang*, *angsel numpuk*, and *angsel tugak*. This dynamic is illustrated in Table 5, which analyses the *angsel bawak* cycle using the 16-beat melody presented in Table 4.

In Table 5, the dancer (Da) initiates subtle movements called *metuwek* before commencing the *angsel*, as indicated by the white boxes. *Metuwek* is the conduct of *ngidupang tapel* or bringing the mask to life (Sadguna, 2022, p. 98). The *angsel* sequence starts with the dancer giving a

⁶ According to Sadguna (2022, p. 85) there are three categories of dancer-musician relationship; first is where the composition is fixed and the dancer(s) follows the music. Secondly, is when musicians accompany the dancers by following their improvisatory movements. Lastly, it involves a back-and-forth leading position between the dancer and the musician.

⁷ *Angsel* is a cadential point marked by a simultaneous

pause in the dance motion and corresponding music.

beginning cue called *wangsit* on the half beat of pitch *ndung* to initiate the *angsel bawak*. This will be followed through for nine beats until it reaches the pitch *ndung* again before the gong, as highlighted in the green boxes. Drummers must be vigilant and responsive, having only one beat (indicated by the yellow boxes) to pick up the *wangsit*, they play louder (marked bold) to signal to the other musicians that an *angsel* is occurring. Understanding this dynamic change, other musicians will increase the volume (*nguncab*) starting on pitch *ndong*, as marked in the orange boxes. Towards the end of the sequence, the dancer, drummer, and musician synchronise their actions to stop simultaneously as they approach the gong. This table exemplifies how the dancer leads the music, specifically through the *angsel bawak* movement. When the dancer and musicians achieve perfect harmony, it

is called *adung*. Sadguna describes *adung* as “a reciprocal harmonic relationship between dancer-musician, the critical element of a successful performance. If it is not connected accordingly, it will be *balu* or *palas* (divorced)” (Sadguna, 2022, p. 94). It demands a profound understanding and connection between dancer and musicians, an unspoken dialogue that aligns movement and music into a seamless whole.

Adding another layer of complexity to this relationship is the fact that, in Topeng Keras performances, it is very common for the dancer and musicians not to rehearse together beforehand. As shown in Figure 2, the Karawitan students of ISI Bali accompany a *Topeng Keras* dance for a recording session. Despite being a recording, no rehearsal was conducted beforehand.



Figure 2. Karawitan students of ISI Bali accompanying a Topeng Keras performance

Table 4
Common melodies for Topeng Keras accompaniment

8-Beat Melody							
(0) - 5	[0 1	^ - 6	2 2	(0) - 1	2 + 2	^ - 6	0 + 1 (0) - 5]
16-Beat Melody							
(0) - 1	[2 2	0 - 1	^ 6	(0) - 1	0 + 5	^ - 6	0 + 1
(2) - 2	2 3	0 - 5	2 2	(2) - 3	0 + 1	0 - 5	^ + 6

Table 5
Dancer, drummer, musician relationship in the angsel bawak cycle⁸

M	(0) - 1	2 2	0 - 1	^ 6
Da	metuwek			
KW	D . T .	D . .	D . T .	D . D D .
KL	. d . t .	. d d .	. d . t .	. d . . d
M	(0) - 1	0 + 5	^ - 6	0 + 1
Da	metuwek	wangsit	Angsel bawak	
KW	D . T .	D . .	D .	T . D . D D .
KL	. d . t .	. d d .	. d	. t . d . . d
Drummers responds				
M	(2) - 2	2 3	0 - 5	2 2
Da	Angsel bawak			
KW	D . T .	D . .	D . T .	D . D D .
KL	. d . t .	. d d .	. d . t .	. d . . d
Nguncab				
M	(2) - 3	0 + 1	0 - 5	^ + 6
Da	Angsel bawak			
KW	D K .	D . D . .	K .	
KL	. . p .	d . d . .	p	
Nguncab				

⁸ Several scholars have conducted research on the dancer-musician relationship (see Sanger, 1989; Sudirana, 2009; Desiari, 2017; Stepputat, 2017; Sadguna & Suratni, 2019; Schatz, 2020; Sadguna, 2022). Nonetheless, it is a topic that can be investigated in more depth and explored in a variety of dance practices.

Topeng dancers, having an innate connection to the *gilak* structure, are prepared to adapt instinctively to any melody “thrown” at them.⁹ Their choreography aligns effortlessly with the music. However, what happens when that rhythmic familiarity is disrupted? What if the foundational 8-beat *gilak* structure is replaced with an asymmetrical cycle?

Although existing scholarship has explored dancer-musician interaction and rhythm perception in Balinese performing arts, a critical lacuna remains concerning how improvisational dance practices engage with asymmetrical metric structures. Prior studies have predominantly focussed on choreographed movement in relation to fixed, symmetrical rhythmic frameworks (see Tenzer, 1991; Sadguna, 2010; Schatz, 2020), thereby overlooking the complex negotiations that arise when dancers encounter irregular cycles in extemporaneous performance settings. To our knowledge, no ethnographic or analytical studies have specifically explored the challenges posed to dancers by irregular cycles in improvisational contexts, such as those found in *gegilakan* forms. The only known example of an asymmetrical metre used for Topeng Keras is Asnawa’s *gegilakan* composition, *Egar Abinawa*. This

study therefore, offers a novel contribution by analysing the embodied responses of dancers navigating an asymmetrical 20-beat cycle in a performance that retains improvisatory agency, as exemplified in *Egar Abinawa*.

Gegilakan Egar Abinawa: A New Composition for Topeng Keras

In the last decade, there has been an increased use of *gegilakan* in Balinese gamelan, where compositions are inspired by *gilak* but do not follow the strict 8-beat convention, exploring cycles in 5, 7, 9, 12, up to 20 beats. These instances are prominent in Baleganjur compositions, highlighting rhythmic complexity and intricate ornamentations. Besides Baleganjur, asymmetrical metres are used in *sendratari*.¹⁰ In *sendratari*, for example, the *gegilakan* is meticulously composed to match the prearranged choreography, leaving no room for improvisation. In contrast, *gegilakan Egar Abinawa* is one of the pieces— if not the only —to be composed for an improvisatory dance such as the Topeng Keras.

This piece was composed by I Ketut Gede Asnawa (see Figure 3) in 2018 for the Bali Arts Festival.¹¹ That year, Asnawa

⁹ Two newly composed 32-beat Topeng Keras melodies have been identified: one performed in Mas Village, Ubud, and another by I Wayan Sudirana with Gamelan Yuganada. While both feature novel melodies, they remain structurally faithful to the *gilak* form. Links to these examples are provided as follows: <https://www.facebook.com/reel/803017895142591> and https://www.youtube.com/watch?v=SlwXau_7hHs.

¹⁰ *Sendratari* is an acronym of *seni drama dan tari*, a term akin to ballet, representing a fusion of dramatic arts and dance. Further discussions on *sendratari* can be seen in (Suartaya, 2011, 2016).

¹¹ I Ketut Gede Asnawa (b. 1955) is recognised as one of Bali’s leading musician and composer. Renowned for his expertise in traditional music, he has also made significant contributions to neo-traditional and

was commissioned to create the music for a *topeng kreasi* performance, played by the Wahana Ghurnita of Denpasar. In an interview, he characterized his instructions for the work as “*bebas*” (free), revealing that there were no predetermined guidelines governing the creation of this work, granting him both freedom and responsibility to innovate.¹²



Figure 3. I Ketut Gede Asnawa

Drawing from his musical expertise, Asnawa embraced the concept of *kreasi* as the foundation of his creative process. As Tenzer explains, “*kreasi* literally means ‘creation’ and *baru* means ‘new.’ The use of this term is not exclusive to instrumental works, but can also be used to describe

new works for dance and other new artistic creation” (Tenzer, 2000, p. 158). Asnawa sought to craft a composition that was both unique and unconventional—an approach Sudirana describes as “finding the unusual” (Sudirana, 2024). For composers, creating new works often involves a deliberate search for distinctive elements that set their creations apart from others. Furthermore, Sudirana states that

Creative composers are always seeking new ideas through listening or direct in-depth learning of their own classical music or musics from other cultures. Of course, these composers are also creative musicians who are “fans” of the music they study. In the act of composing, composers will consciously or unconsciously—depending upon their skills and talent—apply new musical elements or concepts that they have learned or come to favor. (Sudirana, 2013a, pp. 165–166)

Asnawa reflected on his compositional challenge: “*Kenken carane pang len? Yen baang gending gilak, kal amunika manten. Pang taen ngematiang pregina*” (How can I create something truly different? If I compose a piece based on *gilak*, it will feel the same. I want to “kill” the dancer), he explained.

In this context, the phrase “killing the dancer” is not meant to convey violence but to disrupt the familiar and push creative boundaries. Traditionally, dancers often perform with minimal rehearsal, relying on choreography they already know by heart. Asnawa sought to challenge this norm, compelling dancers to engage dynamically and creatively with his music.

contemporary musical forms. Asnawa’s works have been discussed in-depth by scholars such as Andrew McGraw and I Wayan Sudirana (see A. McGraw, 2005, 2009; Sudirana, 2020, 2024).

¹² Personal communication with I Ketut Gede Asnawa on December 27, 2024.

Asnawa’s exposure to international influences shaped his approach to composition. Having travelled extensively and lived in the United States, where he taught and engaged with world music, he developed a broader and more nuanced perspective. Inspired by this global experience, Asnawa wanted to retain the roots of *gilak* in his work while breaking free from its traditional eight-beat structure. His solution was to create a composition in an asymmetrical metre—one that would feel unique and transformative. The resulting piece, *Egar Abinawa*, embodies this innovative vision. The term *Egar* signifies behavior, while *Abinawa* denotes honor. Together, they evoke the qualities of a prime minister—wise, authoritative, and regal.

Gegilakan Egar Abinawa features an asymmetrical 20-beat gongan, chosen to expand melodic possibilities and challenge dancers with unexpected rhythmic patterns. In addition to the unconventional metre, Asnawa selected the Gamelan Semar Pagulingan Saih Pitu as the accompanying

ensemble. According to the ancient Prakempa manuscript, this ensemble was said to be used by kings for their rest (Bandem, 1986). This ensemble employs a seven-tone *pelog* scale within a modal system (*patet*) formed by five primary pitches (*nada pokok*) and two auxiliary tones (*nada pemero*) (see Rai S, 1996). This modal flexibility enabled Asnawa to tailor the music to different characters. For *Egar Abinawa*, he chose *patet tembung*, a mode linked to prime ministerial roles in classical Gambuh, reinforcing the character’s noble presence. Table 6 compares the traditional 16-beat *Topeng Keras* melody with the 20-beat structure of *Egar Abinawa*, highlighting its expansion of the *gilak* form.

For the purpose of analysis, the melody is divided into two parts: the common 16-beat melody (CM), comprising lines 1 and 2, and the *Egar Abinawa* (EA), which also consists of lines 1 and 2. It is evident that this piece is an extension of the common *Topeng Keras* melody. Departing from the two symmetrical lines of the original

Table 6
Juxtaposition between the common 16-beat melody (CM) and Egar Abinawa’s (EA) 20-beat melody

CM (1)	(^o)–	[^o 2	^o – 1	[^] 6	(^o)–	^o + 5	[^] – 6	^o + 1		
	1				1					
EA (1)	(^o)–	[^o 2	^o – 1	[^] 6	(^o)–	^o + 5	[^] – 6	^o + 1	([^])– 6	^o 5
	1				1				[^] – 6	^o 1
CM (2)	(^o)–	^o 3	^o – 5	^o 2	(^o)–	^o + 1	^o – 5	[^] + 6	(^o) 1]	
	2				3					
EA (2)	(^o)–	^o 3	^o – 5	^o 2	(^o)–	^o + 1	^o – 5	[^] + 6	(^o) 1]	
	2				3					

form, Asnawa restructured the melody into an asymmetrical metre comprising a 12-beat line followed by an 8-beat line. This divergence is most striking in the addition of four extra beats in the first line (marked EA (1), highlighted in purple), a deliberate move that reshapes the melodic flow. These additional beats introduce a distinctive ascending melodic contour called *ngelik*. In this technique, the tonic pitch *nding* ascends to a higher pitch *ndong* before gracefully descending back to the tonic. The gong sounded on the eighth beat in a 16-beat cycle, traditionally perceived as the midpoint of the melody, but Asnawa reconceptualises it as a “passing tone” leading toward the *ngelik*.

At the same time, Asnawa preserves the recognizable *gilak* essence through strategic rhythmic placements. The *kempli* plays on every even beat, while the two *kempur* strokes—essential to the *gilak* structure—are carefully positioned to precede the gongs. In the first melodic segment, they fall on beats 5 and 7; in the latter, on beats 17 and 19. This meticulous placement anchors the composition in a familiar and reassuring framework for the audience. Similarly, the *geguletan kendang* pattern, with its steady 4-beat length, remains unaltered, providing a rhythmic thread that ties the innovation to the traditional.

Asnawa’s intent was not to break away from the established *gilak* form but to transform it, extending its possibilities while maintaining its core identity. Transforming is “making a thorough change in the form, appearance, or character” (Sudirana,

2013a, p. 167). The term *gegilakan* itself encapsulates this idea, signifying a longer and more intricate structure while retaining recognisable elements of the original. This delicate balance between familiarity and novelty ensures that his composition resonates with both tradition and transformation.

Should I Wait? In Search of *Angsels*

Since a cycle involves the repetition of specific content, the listener may easily anticipate what will follow a given event, which gives the present a sense of medium-range certainty. In particular, Gong becomes a predictable goal, so group endings are apparent with or without formulaic closure patterns, such as those in much noncyclic music (Roeder & Tenzer, 2012, p. 27).

This sense of predictability within cyclic structures is one of the primary reasons why topeng dancers rarely need to rehearse with musicians. Their deep familiarity with the *gilak* cycle, honed through years of listening and performing, has cultivated an innate musical instinct. The *gilak* is not just a pattern they follow; it has become an integral part of their being, woven into their muscle memory. They have mastered the art of *ngerasang gending*—to deeply sense and embody the music.

For these dancers, there is no need to pause or hesitate. They do not wait for cues or instructions because the music flows through them. The rhythmic certainty of *gilak* allows them to anticipate every shift instinctively. They know precisely when to signal an *angsel*, when to punctuate their

movements, and how to finish the dance. These actions are not deliberated—they happen as naturally as breathing. In their mastery, waiting becomes obsolete, replaced by an intuitive synchrony with the cyclical nature of the music.

What happens when a dancer's innate sense of predictability, rooted in the familiar rhythm of an 8-beat cycle, is disrupted by the irregularity of a 20-beat cycle? Does their thought process remain the same, or does it force a recalibration of instinct and creativity? Can they still find their *angsel*s intuitively?

In composing *Egar Abinawa*, Asnawa sought to “kill the dancer” by challenging them to venture beyond their comfort zones. “They have to be creative,” he explained. The composition was completed before inviting the performer, Putu Adi Sujana (Tu Yik), a renowned topeng dancer. During the initial rehearsal, Sujana encountered music that felt both familiar and disorienting, its irregular cycles disrupting the rhythmic instincts shaped by his training. Asnawa recalled that Sujana struggled to adapt. “*Mara baang ningehang cepok, sing be kena ben ngigelang, ngandang gen terus angselne*” (when he listened for the first time, he couldn't dance to it. All of the *angsel*s were *ngandang*, out of place). Sujana himself confirmed this assessment, stating: “*tiyang mekesyab ningehang pertama gendingne. Kenken carane ngigelang? Dija tongos angselne?*” (I was surprised when I first heard the piece. How could I dance to this music? Where should

the *angsel* be placed?).¹³ These remarks highlight the intentional rupture introduced by the composition—a departure from conventional rhythmic structures designed to provoke interpretive reconsideration and creative response.

For Sujana, the irregularity of the 20-beat cycle challenged the essence of his topeng training, which had instilled a natural alignment with 8-beat structures. The unexpected patterns disrupted his flow, leaving him feeling momentarily unmoored, questioning his understanding of the art form. It was not a matter of talent but of familiarity and adaptation. Sujana recorded the piece to regain familiarity, taking it home to immerse himself in its intricacies. He listened repeatedly, letting the unfamiliar rhythm seep into his consciousness until it no longer felt foreign. According to Sujana, performing this piece would be impossible for amateur dancers; only those with extensive experience and heightened musical sensitivity can navigate the nuances of such an asymmetrical *gegilakan* form.

The collaboration ultimately exposed tensions between Asnawa's experimental vision and traditional topeng performance practices. While Sujana worked to internalize the composition's unfamiliar rhythms, Asnawa sought to uphold the principle that the dancer should lead the music. In practice, however, this ideal proved challenging to uphold. During early rehearsals, Asnawa found himself stepping in, “giving” cues to Sujana, guiding him to

¹³ Personal communication with I Putu Adi Sujana on May 5, 2025.

the “correct” moments to initiate the *wangsit* (beginning cue) of the *angsel* sequences. At one point, Asnawa encouraged Sujana by stating “*benelang mirengang gending niki*” (listen to this piece carefully, then you will understand). These moments temporarily inverted the usual dynamic between dancer and composer, suggesting that the work demanded not only technical fluency but also a redefined model of collaboration. Over time, however, Sujana came to understand and fully embody the composition, ultimately restoring the dancer’s central role in shaping the performance.

The choreography incorporated several original *angsel* types from Topeng Keras, including the *angsel bawak*, requiring precise coordination among dancer, drummer, and ensemble. Table 7 illustrates their relationship within the irregular metre of *Egar Abinawa*.

Based on the analysis on Table 7, when performing the *angsel bawak*, the dancer cannot simply count and wait for the timing of an *angsel* to arrive. Relying on internal counting risks exposing a sense of *nguda* (amateurism), a flaw that becomes visible in the fluidity of the performance. To achieve *wayah* (meaning ripe or professional), the dancer must seamlessly weave subtle *metuwek* movements with the melody, animating the mask and infusing it with life (*ngidupang tapel*).

As illustrated in the table, while the *angsel bawak* retains its traditional duration, the expanded melody introduces a new layer of complexity. The dancer gives the *wangsit*,

beginning (highlighted in green) on pitch *ndung*, prompting the drummer’s response one beat later (highlighted in yellow). Following this, the musicians intensify their volume (*nguncab*) on pitch *ndong* (orange), culminating in a unified gesture, all leaning toward the final *gong*.

For dancers accustomed to the predictable rhythm of traditional *gilak*, the expanded melody of this piece requires considerable adjustments. Dance lecturer I Wayan Sutirtha noted that “*perlu waktu*” (it takes time) to internalise its nuances.¹⁴ Furthermore, I Made Dwi Andika Putra, one of the musicians performing *Egar Abinawa*, recalled introducing the piece to his gamelan group in 2019. The group later performed it during a temple ceremony in Pagutan village, Batubulan. Interestingly, the organisers arranged dancers without prior rehearsal, resulting in a performer unfamiliar with the composition. When the performance began, it quickly became evident that the dancer was unfamiliar with the nuances of the composition. As Andika explained, “*mati pregina’e, sing nyidang ngangselin*” (the dancer is “dead,” unable to execute the *angsels*).¹⁵ In response, the musicians had to step in and provide the *angsels* to maintain the flow of the performance—an improvisation that disrupted the expected dynamic, particularly in Topeng Keras, where the dancer traditionally leads and drives the performance.

¹⁴ Personal communication with I Wayan Sutirtha on September 19, 2024.

¹⁵ Personal communication with I Made Dwi Andika Putra on January 1, 2025.

Table 7
Dancer, drummer, musician relationship in the angsel bawak cycle of gegilakan Egar Abinawa

M	($\circ$) - 1	$\circ$ 2	$\circ$ - 1	$\wedge$ 6
Da	metuwek			
KW	D . T	D . . D . T . D . D D .		
KL	. d . t . d d . d . t . d . . d			

M	($\circ$) - 1	$\emptyset$ + 5	$\wedge$ - 6	$\circ$ + 1
Da	metuwek			
KW	D . T . D . . D . T . D . D D .			
KL	. d . t . d d . d . t . d . . d			

M	$(\wedge)$ - 6 $\emptyset$ 5 $\wedge$ - 6 $\circ$ 1			
Da	metuwek <i>wangsit</i> <i>Angsel Bawak</i>			
KW	D . T . D . . D . T . D . D D .			
KL	. d . t . d d . d . d . t . d . . d			

Drummers responds

M	($\circ$) - 2	$\circ$ 3	$\emptyset$ - 5	$\circ$ 2
Da	Angsel Bawak			
KW	D . T D . . D . T . D . D D .			
KL	. d . t . d d . d . t . d . . d			

Nguncab

M	($\circ$) - 3	$\circ$ + 1	$\emptyset$ - 5	$\wedge$ + 6
Da	Angsel Bawak			
KW	D K . D . D . . K .			
KL	. . p . d . d . . . p			

Nguncab

Unlike familiar Topeng Keras melodies, this composition requires thoughtful adjustments, as the choreography cannot be immediately applied. Dancers must move beyond instinct, recalibrating their internal rhythm to align with the music’s intricate phrasing. This shift compels dancers to

adopt a more analytical and deliberate approach, transforming each movement into an intentional response to the melody. This process fosters both artistic and technical growth, deepening their understanding of the symbiotic relationship between music and dance.

Ultimately, this is not just a technical adjustment but an artistic evolution. The dancer and drummer must collaborate with heightened precision to achieve *adung*—the ultimate successful performance.

CONCLUSION

“Tradition is a process of creative transformation,” as Bakan states (2019). In the context of Balinese arts, this transformation is not a departure from tradition but a dynamic evolution that balances respect for the past while exploring the exploration of new possibilities. This balance is vividly illustrated in Asnawa’s *gegilakan Egar Abinawa*, where the introduction of an asymmetrical metre redefines both musical and dance conventions.

By expanding the 8-beat *gilak* cycle into the 20-beat *gegilakan*, Asnawa challenges the dancer’s reliance on ingrained habits and traditional formulas—a process he described as *ngematiang pregina* (“killing the dancer”). This disruption forces dancers to reevaluate their movements, interpretations, and understanding of rhythm, pushing them beyond their comfort zones. What initially feels like a challenge becomes an opportunity to engage more deeply with the art form, reconnecting with its essence while exploring new creative boundaries.

Through *gegilakan Egar Abinawa*, tradition is not merely preserved but transformed, demonstrating how asymmetrical metre can serve as a catalyst for artistic growth. This composition underscores the evolving nature of Balinese music and dance, where innovation breathes

new life into heritage. By challenging performers and audiences to think differently, it reaffirms that tradition thrives when it is questioned, reshaped, and reimagined. In this way, “killing the dancer” becomes a metaphor for revitalising tradition, ensuring its continued relevance and vitality.

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Psychometric Evaluation of Subjective Happiness Scale in the Indonesian Context

Clement Eko Prasetyo^{1,2*}, Mellia Christia¹, Airin Yustikarini Saleh¹, and Agnes Sianipar¹

¹*Cognition, Affect, and Well-being Lab, Faculty of Psychology, Universitas Indonesia, Jalan Lingkar Kampus Raya, Jalan. Prof. DR. R. Slamet Iman Santoso, Pondok Cina, Kecamatan Beji, Depok City, West Java, 16424, Indonesia*

²*Indonesian Psychological Healthcare Center, Bursa Efek Indonesia Tower 1, Jl. Jenderal Sudirman Kav 52-53 28th Floor, Unit 2805, Senayan, Kebayoran Baru, South Jakarta, Jakarta, 12190, Indonesia*

ABSTRACT

The Subjective Happiness Scale (SHS) has been widely used to measure global happiness. However, only a few studies have critically evaluated the psychometric properties of the Indonesian version of the SHS using rigorous techniques. This study aimed to address this gap by conducting a comprehensive assessment of the SHS using complementary Classical Test Theory (CTT) and Item Response Theory (IRT) frameworks to provide a robust and nuanced evaluation of the scale's reliability, validity, and item-level performance. Indonesian-speaking participants completed the Indonesian SHS, the General Health Questionnaire-12 (GHQ-12), and the Satisfaction with Life Scale (SWLS). Results indicated that the Indonesian SHS demonstrated acceptable reliability and validity. Nevertheless, Item 4 consistently underperformed in capturing the happiness construct. These findings highlight the importance of cultural and linguistic adaptation when using the SHS in diverse cultural contexts. The study offers robust psychometric evidence of the scale's internal structure, item functioning, and construct validity of the Indonesian SHS, supporting its use in future well-being research.

Keywords: Indonesian, item response theory, reliability, subjective happiness scale, validity

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E-mail addresses:

clementeko.work@gmail.com (Clement Eko Prasetyo)

mellia-m@ui.ac.id (Mellia Christia)

airinys@ui.ac.id (Airin Yustikarini Saleh)

agnes.nauli@ui.ac.id (Agnes Sianipar)

* Corresponding author

INTRODUCTION

The term “happiness” is quite broad and encompasses many aspects. Generally, “happiness” can be categorised into three domains (Iskandarsyah, 2022): the health domain (Quality of Life) measured by instruments such as WHOQOL (World Health Organisation, 2012) or EQ-

5D-5L (Purba et al., 2018), the socio-economic domain typically measured by socio-economic status/wealth, and the psychological domain. Happiness in the psychological domain can be distinguished into two schools of thought: eudaimonic (e.g., Deci & Ryan, 1985; Ryff & Keyes, 1996) and hedonic (e.g., Diener, 1984) well-being. This study will focus on the perspective of hedonic well-being.

Measurement within the domain of hedonic well-being varies considerably. Some approaches operationalize it as life satisfaction (Diener et al., 1985), while another approach defines it as the frequency of an individual's affective state, encompassing both negative and positive affect (Diener et al., 2009; Watson et al., 1988). However, there was no existing tool that measured global happiness. Lyubomirsky and Lepper (1999) developed the Subjective Happiness Scale (SHS) to address this gap.

The Subjective Happiness Scale (SHS) measures global happiness as individuals experience it, if most individuals can make assessments and judgments regarding their life experiences, including their happiness level. Such happiness assessment is based on a subjective and global assessment of being happy or unhappy across various life experiences. Therefore, someone may assess themselves as 'very happy' even if certain aspects of their life are *somewhat* pleasant (Lyubomirsky & Lepper, 1999). The SHS consists of four items: two items ask respondents to evaluate themselves without involving any social comparison (or absolute ratings), while the other two items

ask respondents to evaluate themselves in terms of whether they would fit descriptions of happy and unhappy individuals, relative to their peers.

The SHS has been translated into various languages, such as Malay (Swami, 2008), Tagalog and German (Swami et al., 2009), Chinese (Nan et al., 2014), Greek (Karakasidou et al., 2016), Myanmar and Vietnamese (Powell et al., 2020), and Nigerian (Agbo, 2021). The SHS has demonstrated excellent reliability (Agbo, 2021; Kocjan et al., 2022; Powell et al., 2020) and validity (e.g., construct validity, convergent validity), indicating that the SHS can accurately measure general happiness (Agbo, 2021; Kocjan et al., 2022; Powell et al., 2020). Some studies have also utilised the SHS to measure subjective happiness across various cultural groups via cross-cultural comparisons (Kocjan et al., 2022; Swami et al., 2009).

The SHS has also been used to measure individuals' global happiness in the Indonesian population. For instance, it has been applied in research on happiness among low-income urban communities (Kharisma, 2022) and in a study examining Jakarta residents' perceptions of public open spaces and their well-being (Supriyanto, 2020). Despite its extensive use in the Indonesian population, the psychometric equivalence of Indonesian SHS and the original SHS has remained underexplored. At the outset of the current study, we had identified only one unpublished undergraduate thesis (Lumban Tobing, 2009) and one published research article (Powell et al., 2020), both

with small sample sizes, that specifically examined the psychometric properties of SHS in the Indonesian context. Hence, the primary objective of this study is to address this gap by utilising a larger and more diverse Indonesian sample to conduct a comprehensive psychometric validation of the SHS in Indonesia. These efforts are crucial to ensure that the Indonesian version of the SHS is equally valid and reliable as the original version (International Test Commission [ITC], 2018).

The first adaptation and psychometric testing of the Indonesian version of the SHS were conducted by Lumban Tobing (2009) using a general population sample ($n = 583$) from urban areas (Jakarta, Bogor, Tangerang, Depok, Bekasi), with 54% of participants being female and 54.1% of participants in young adulthood. The study found that the SHS had good reliability (Cronbach's $\alpha = 0.791$) and demonstrated good divergent validity, with moderate but significant correlations with constructs such as depression ($r = -0.318$, $p = 0.002$) and self-actualisation characteristics ($r = 0.310$, $p = 0.003$). In another study, Powell et al. (2020) conducted psychometric testing of the SHS in four Southeast Asian countries, including Indonesia ($n = 231$), using CFA and IRT analyses to assess construct validity. Powell et al. (2020) found that while the SHS demonstrated good overall reliability and construct validity, the fourth item showed deficient psychometric scores across several countries, including Myanmar, Vietnam, Indonesia, and Malaysia. However, given the small sample size and the selective

characteristics of the Indonesian participants (all of whom were university students from a limited number of universities), some selection bias may have affected the findings (Powell et al., 2020).

This study aims to conduct a comprehensive psychometric evaluation of the Indonesian version of the Subjective Happiness Scale (SHS) to strengthen the evidence for its validity and reliability. Although earlier work has laid the groundwork for such efforts, including a preliminary study by Lumban Tobing (2009), that manuscript remains unpublished, has not been peer-reviewed, and focusses on the urban populations. A recent study (Powell et al., 2020) used a modest sample size of Indonesians to collect the psychometric evidence. Such sampling constraints may compromise the robustness and generalisability of psychometric findings (Hair et al., 2019). To address the limitation of generalizability, the present study will use a larger sample and include participants from various regions in Indonesia.

During the adaptation process, certain biases may still arise. First, there is the potential for construct bias, as happiness may be understood differently across cultures. To minimise this bias, we conducted expert judgments to ensure the construct remains relevant and widely recognised by the Indonesian population. Statistically, we also employed two approaches to gather evidence of validity and reliability: Classical Test Theory or CTT (i.e., reliability, CFA, convergent validity, and test criterion) and Item Response Theory or IRT.

The use of CTT and IRT, two complementary approaches, contributes theoretically by capturing different aspects of measurement quality. CTT offers accessible indices, such as reliability, convergent validity, and factor structure, through confirmatory factor analysis, while IRT provides item-level precision and parameter invariance that align more closely with latent trait theory (De Ayala, 2022). The integration of both methods enhances the robustness of the validation process and advances theoretical understanding of cross-cultural measurement (Kaplan & Sacuzzo, 2018).

Second, method bias is a concern, particularly regarding the range of the response scale (from 1 to 7) and the test administration process. To address this, we conducted pilot tests with a small group of individuals to ensure that the instructions, items, and response options were well understood and that the test could be administered correctly. Finally, item bias may occur during translation, particularly if sentences are too lengthy or complex or if specific changes alter the intended meaning. To mitigate this, expert evaluations and readability tests were performed. Additionally, item discrimination analysis assessed each item's ability to differentiate individual happiness levels.

METHODS

Research Design

This study aimed to collect psychometric evidence of SHS and employed a cross-sectional design. Various analytical techniques were utilised, including

reliability analysis, validity analysis, and the application of Item Response Theory (see the Analysis section).

Participants and Procedures

This study employed convenience sampling, targeting Indonesian citizens in urban areas with Internet access. The participants were classified as young adults (18–39 years old), proficient in the Indonesian language and had completed at least high school education. Information about participating in the study was disseminated through the researchers' social networks and social media platforms, such as LinkedIn. The total number of participants was 1,464, aged 18–39 ($M = 22.53$, $SD = 3.57$). Most participants were female (80.3%), undergraduate students (65.8%), and residents from West Java (35.8%), Jakarta (26.8%), Banten (10.4%), East Java (10%), and Central Java (6.5%), and other areas in Indonesia (e.g., Yogyakarta, Aceh, Maluku; 10.5%). Each participant provided informed consent before participation. Those who agreed to participate in the study completed online questionnaires, including the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999), the Satisfaction with Life Scale (Diener et al., 1985), and the General Health Questionnaire-12 (Goldberg & Blackwell, 1970). The SWLS (Muttaqin, 2022) and GHQ-12 (Primasari & Hidayat, 2016) questionnaires have been adapted into Bahasa Indonesia and have demonstrated good psychometric properties. The Ethics Committee of the Faculty of Psychology, Universitas Indonesia (163/FPsi.Komite

Etik/PDP.04.00/2022) approved all procedures and steps in this research.

Instruments

Subjective Happiness Scale (SHS)

The Subjective Happiness Scale is a psychological measurement of individuals' subjective happiness (Lyubomirsky & Lepper, 1999). This scale consists of four items (the fourth is reverse scored), which relate to the subjective judgment about their happiness. Each item has Likert-scale responses ranging from 1 to 7. More specifically, two items assess self-perceptions based on absolute ratings of well-being and ratings relative to peers. The other two present brief descriptions of happy and unhappy individuals and ask respondents to evaluate the extent to which the descriptions fit themselves. A single final score is calculated by averaging the scores of the four items. Thus, the possible final score will range from 1 to 7, with a higher score representing greater subjective happiness.

When translating the Subjective Happiness Scale, we used a forward-backward translation procedure. Two experts performed the forward translation process; one was an author of the current study (AN), and the other was a professional translator with expertise in happiness studies. For the back-translation, two professional translators with backgrounds in psychology and a familiarity with the topic of happiness were employed. Each translator worked independently at every stage of the translation process. The authors' team (MC,

CEP, AYS, and AN) discussed the results of each translator's work. Expert judgment was conducted by two experts in the field of happiness and well-being. The results of the expert judgment were used to enhance the translational quality and to ensure cultural relevance, construct equivalence, and linguistic fluency of the Indonesian version of the SHS.

Satisfaction with Life Scale (SWLS)

The Satisfaction with Life Scale (SWLS, henceforth) (Diener et al., 1985; Muttaqin, 2022) is one of the most widely used instruments for measuring subjective well-being and happiness in psychology. The SWLS measures the cognitive aspect of well-being using five items. Each item has a 7-point Likert response format. The scale's total score is determined by averaging the scores of the items. The higher score reflects higher well-being.

General Health Questionnaire (GHQ)

The General Health Questionnaire is a widely used and valid instrument for screening psychological distress. The scale was developed by Goldberg and Blackwell (1970) and adapted for use in Bahasa Indonesia by Primasari and Hidayat (2016). There are 12 items, and each item uses a 4-point Likert scale. The total score of GHQ-12 is computed by summing all the items. GHQ-12 also has a cut-point score to discriminate between people who have psychological distress and those who do not have psychological distress. The cut-point is 11, with a score above/equal

to the cut-off point representing having psychological distress.

Analysis

Reliability Analysis

The reliability analysis method used in this research was internal consistency. Internal consistency aimed to see the consistency between items and the measured construct. Cronbach's alpha (α) and Construct reliability (Hair et al., 2019) were used to estimate the internal consistency. The reliability was higher than or equal to 0.70, indicating that the instrument has good reliability (Hair et al., 2019). We also checked the item discriminant with a cut-off score higher than 0.30 (Hair et al., 2019). Jamovi was used to analyse reliability.

Validity Analysis

We conducted a validity analysis by collecting two sources of validity evidence: evidence based on the internal test structure (or construct validity) and evidence based on relations to other variables (or convergent validity and test criterion) (American Educational Research Association et al., 2014; Urbina, 2014). All the evidence was analysed using Jamovi Software.

Evidence of the Internal Test Structure (Construct Validity). We used confirmatory factor analysis (CFA) to collect evidence based on internal structure. Confirmatory factor analysis is a statistical analysis technique that uses a hypothetical model to estimate the population covariance matrix in comparison to the observed covariance

matrix (Hair et al., 2019). There are some statistics criteria to decide the fitness of the SHS model according to observed data (Hair et al., 2019; Kline, 1998, 2005), including p-value (>0.05), χ^2/df (≤ 3), CFI (≥ 0.90), GFI (≥ 0.90), RMSEA (≤ 0.07), and SRMR (< 0.08). Factor loadings higher than 0.30 were acceptable (Hair et al., 2019). The maximum likelihood method was used for estimation.

Evidence based on Relations to Other Variables (Convergent Validity).

We used convergent validity and the test-criterion relationship (contrasted-group method) to collect evidence based on relationships with other variables. The Subjective Happiness Scale was correlated with the Satisfaction with Life Scale (SWLS) for convergent validity. Convergent validity is applied when a measurement correlates with other tests that measure the same construct as the intended measures (Kaplan & Saccuzzo, 2018). In this research, SHS and SWLS have the same or similar construct (i.e., happiness/subjective well-being). Pearson correlations were used to analyse the relationship between variables.

For the test-criterion relationship, we used GHQ-12 as a criterion for mental health conditions. Individuals with a GHQ-12 score below 11, as indicated, are considered to have good mental health (Primasari & Hidayat, 2016). A GHQ-12 score higher than 11 indicates poor mental health. Based on the GHQ-12 cut-off score, we compared the scores of SHS between the two groups. The t-test was used to determine whether there were significant differences in SHS's scores.

IRT Analysis

IRT analysis was conducted using Jamovi software. Before performing the IRT analysis, we tested the assumptions of unidimensionality and local independence. Unidimensionality refers to the concept that all items in a measurement tool assess a single, underlying construct. This assumption was tested using Confirmatory Factor Analysis (CFA), and the results will be presented alongside the evidence collected based on the internal structure. Local independence assumes that each item is strongly associated with the primary construct and weakly associated with other items. This assumption was tested using the Q3 correlation matrix (Christensen et al., 2017).

The IRT analysis employed the Polytomous Rasch model (rating scale). Model fit indicators, such as the infit mean square and outfit mean square, were examined to determine whether the items aligned with the hypothesised construct. The infit mean square was generally more sensitive to the contribution of each measurement item within the expected model and was more commonly used. In contrast, the outfit mean square was more sensitive to errors or outliers in the model (Bond et al., 2021). According to Bond et al. (2021), reasonable infit and outfit mean square values ranged from 0.6 to 1.4 for rating scales. We also presented Item Characteristic Curves (ICC), rating scale deltas/thresholds, and item difficulty (beta) for each item. Rating scale deltas (thresholds) were used to assess the functioning of the Likert scale, determining whether participants' responses aligned with

the scale's expectations (ranging from 1 = "not at all" or "less happy person" to 7 = "a great deal" or "happier person") (Bond et al., 2021). The interpretation of thresholds is that the lower (or more negative) the delta values, the lower the individual's ability (i.e., happiness); whereas the higher (or more positive) the deltas, the higher the individual's ability (i.e., happiness). Item difficulty (beta) indicates how difficult it is for individuals to respond to a particular item. The lower (or more negative) the beta, the easier the item is to endorse; likewise, the higher (or more positive) the beta, the more difficult the item is to endorse.

RESULTS

Reliability

The reliability analysis indicated that the SHS is reliable ($\alpha = 0.856$, construct reliability = 0.795). Regarding item analysis, specifically item discrimination, three items of the SHS (items 1-3) effectively distinguished between individuals with high and low subjective happiness. However, item 4 showed a low discrimination index. For more detailed information on the discrimination indices for each item, refer to Table 1.

We also checked the inter-item correlations between the items in the SHS (Table 2). Table 2 shows that all items had significant correlations, but item 4 had a weak correlation with the other items, ranging from $r = 0.163$ to $r = 0.167$. In other words, item 4 did not provide as much information about 'happiness' as the other three items and indicated that this specific item contributed the least to the construct.

Table 1
Subjective happiness scale's item discriminant score (English and Bahasa Indonesia)

Item (in English)	Item (in Bahasa Indonesia)	Item discriminant score
SHS 1. In general, I consider myself... (options: (1) not a very happy person... (7) a very happy person)	SHS 1. Secara umum, saya menganggap diri saya sebagai orang yang.. (opsi: (1) sangat tidak bahagia... (7) sangat bahagia)	0.685
SHS 2. Compared with most of my peers, I consider myself... (options: (1) less happy... (7) more happy)	SHS 2. Dibandingkan dengan teman-teman saya, saya menganggap diri saya sebagai orang yang... (opsi: (1) lebih tidak bahagia... (7) lebih bahagia)	0.665
SHS 3. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you? (options: (1) not at all... (7) a great deal)	SHS 3. Ada orang-orang yang secara umum sangat bahagia, mereka menikmati hidup mereka tanpa terpengaruh oleh apa yang sedang terjadi, dan sebisa mungkin menikmati segalanya secara penuh. Sejauh manakah pernyataan ini menggambarkan diri Anda? (opsi: (1) tidak sama sekali menggambarkan... (7) sangat menggambarkan)	0.626
SHS 4. Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you? (options: (1) not at all... (7) a great deal)	SHS 4. Ada orang-orang yang secara umum tidak bahagia, meskipun mereka tidak tertekan/depresi, mereka tidak terlihat bahagia seperti yang seharusnya. Sejauh manakah pernyataan ini menggambarkan diri Anda? (opsi: (1) tidak sama sekali menggambarkan... (7) sangat menggambarkan)	0.186

Note. *Options = in the SHS, each item has a Likert-scale model response ranging from 1 to 7

Table 2
Inter-item correlations (Pearson)

Items	SHS 1	SHS 2	SHS 3	SHS 4_R
SHS 1	-	-	-	-
SHS 2	0.743**	-	-	-
SHS 3	0.671**	0.658**	-	-
SHS 4_R	0.166**	0.163**	0.167**	-

Note. **p<0.01

Validity

Validity Evidence Based on Internal Test Structure (Construct Validity)

Based on the CFA results, it was evident that the structural model of the SHS demonstrates a good fit. This was supported by all fitness

indicators of the SHS structural model meeting the predefined criteria (as outlined in the methods section): p-value = 0.574; χ^2/df = 0.556; CFI = 1.00; GFI = 1.00; RMSEA = 0.000; SRMR = 0.005. All items in the SHS showed significant factor loadings

($p < 0.01$), except for item SHS 4, which had factor loadings less than 0.3 (Figure 1 and Table 3). Psychometrically, this indicated that item 4 had a weak relationship with the happiness constructed by the SHS. Consequently, a revision for item 4 is recommended or may be considered for exclusion in the Indonesian version of the SHS.

Validity Evidence Based on Relations to Other Variables (Convergent Validity and Test-criterion Relationships)

We found a significant positive correlation between the SHS and the SWLS

($r(1462) = 0.680, p < 0.01$). This indicated that the construct measured by the SHS (i.e., subjective happiness) aligns well with another well-established and widely used happiness measurement tool, the SWLS.

This study also found that the Subjective Happiness Scale (SHS) could distinguish between happiness levels in individuals who indicated experiencing psychological distress (GHQ-12) and those who did not (test-criterion relationship). In the group showing high psychological distress, there was a lower level of happiness ($N = 910, M = 16.59, SD = 4.00$) compared to the group not indicated for

Table 3
Factor loadings of the subjective happiness scale

Item	Unstandardized loadings (Std. Error) Standardised Factor	Standardised Factor Loading	Z-score (p-value)
SHS1	1.04 (0.027)	0.87	38.46 (< 0.01)
SHS2	1.17 (0.030)	0.85	39.17 (< 0.01)
SHS3	1.18 (0.032)	0.77	36.92 (< 0.01)
SHS4	0.34 (0.055)	0.20	6.08 (< 0.01)

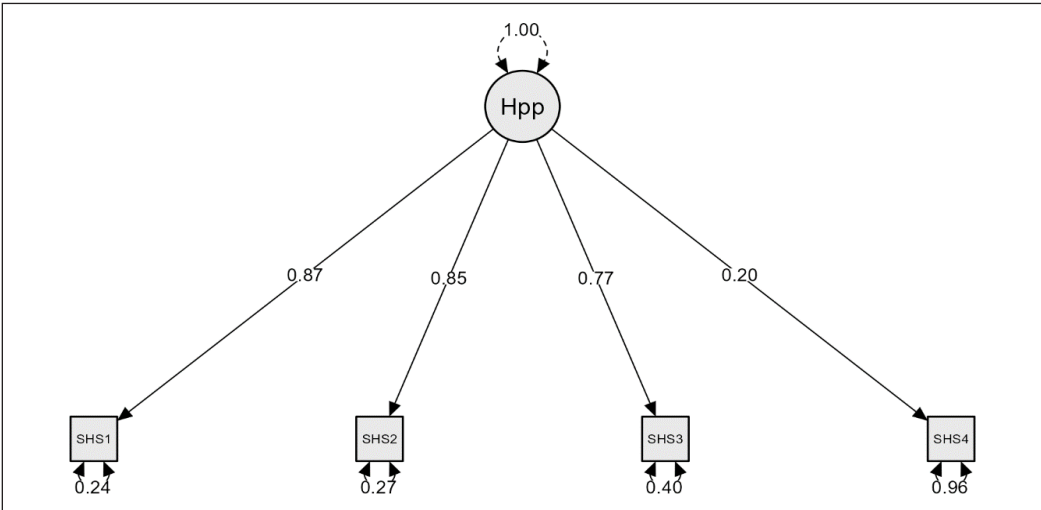


Figure 1. Model of SHS in confirmatory factor analysis (CFA)

psychological distress (N = 554, M = 20.92, SD = 3.34). The results of the t-test analysis revealed a significant difference between the group with psychological distress and the group without psychological distress ($t(1325.6) = 22.27, p < 0.001$).

Based on these findings, the SHS in the young adult population of Indonesia exhibits an internal structure akin to the hypothesized model. SHS and other measurement instruments assessing happiness-related constructs are also significantly correlated. Further details will be explained in the subsequent section. Moreover, SHS can effectively discriminate between individuals who have experienced psychological distress and those who have not.

Item Response Theory (IRT)

Testing for Unidimensionality and Local Independence

The results of the unidimensionality assumption test using CFA indicate that the SHS measures only one construct (p-value = 0.574; $\chi^2/df = 0.556$; CFI = 1.00; GFI = 1.00; RMSEA = 0.000; SRMR = 0.005). For more details, refer to the results on validity based on the internal test structure. The local independence assumption test results using the Q3 Correlation Matrix show high

correlations between items, exceeding 0.2 or 0.3 (Table 4). This indicates the presence of local dependence. Therefore, caution is needed when interpreting the results from the IRT. Previous research has found that local dependence can lead to bias in certain indicators, such as item parameter estimates (Reese, 1995), theta scores (Zenisky et al., 2002), and an overestimation of overall test reliability (Sireci et al., 1991).

IRT Analysis

Based on the model fit analysis results (i.e., infit and outfit mean squares), it was found that items 1-3 of the SHS fall within the recommended score range (Bond et al., 2021), which is between 0.6 and 1.4. However, for item 4, the infit and outfit mean squares obtained were 1.6. This indicates that item 4 is slightly less productive in measuring the construct (Table 5). However, it does not significantly diminish the overall psychometric quality of the SHS. Thus, we must examine the ICC of each item to better understand model fit (Figure 2). Based on the ICC, it was found that items 1-3 have response patterns (jagged lines) that closely approximate the expected or hypothesised patterns. There are only minor deviations, which are insignificant

Table 4
Q3 correlation matrix for unidimensionality

Items	SHS 1	SHS 2	SHS 3	SHS 4_R
SHS 1	-	-	-	-
SHS 2	0.320	-	-	-
SHS 3	0.158	0.161	-	-
SHS 4_R	-0.528	-0.515	-0.486	-

Table 5
Item statistics of the rating scale model

	Measure	S.E.Measure	Infit	Outfit
SHS1	-1.615	0.0235	0.591	0.621
SHS2	-1.502	0.0232	0.744	0.771
SHS3	-1.270	0.0226	0.923	0.923
SHS4_R	-0.977	0.0222	1.677	1.687

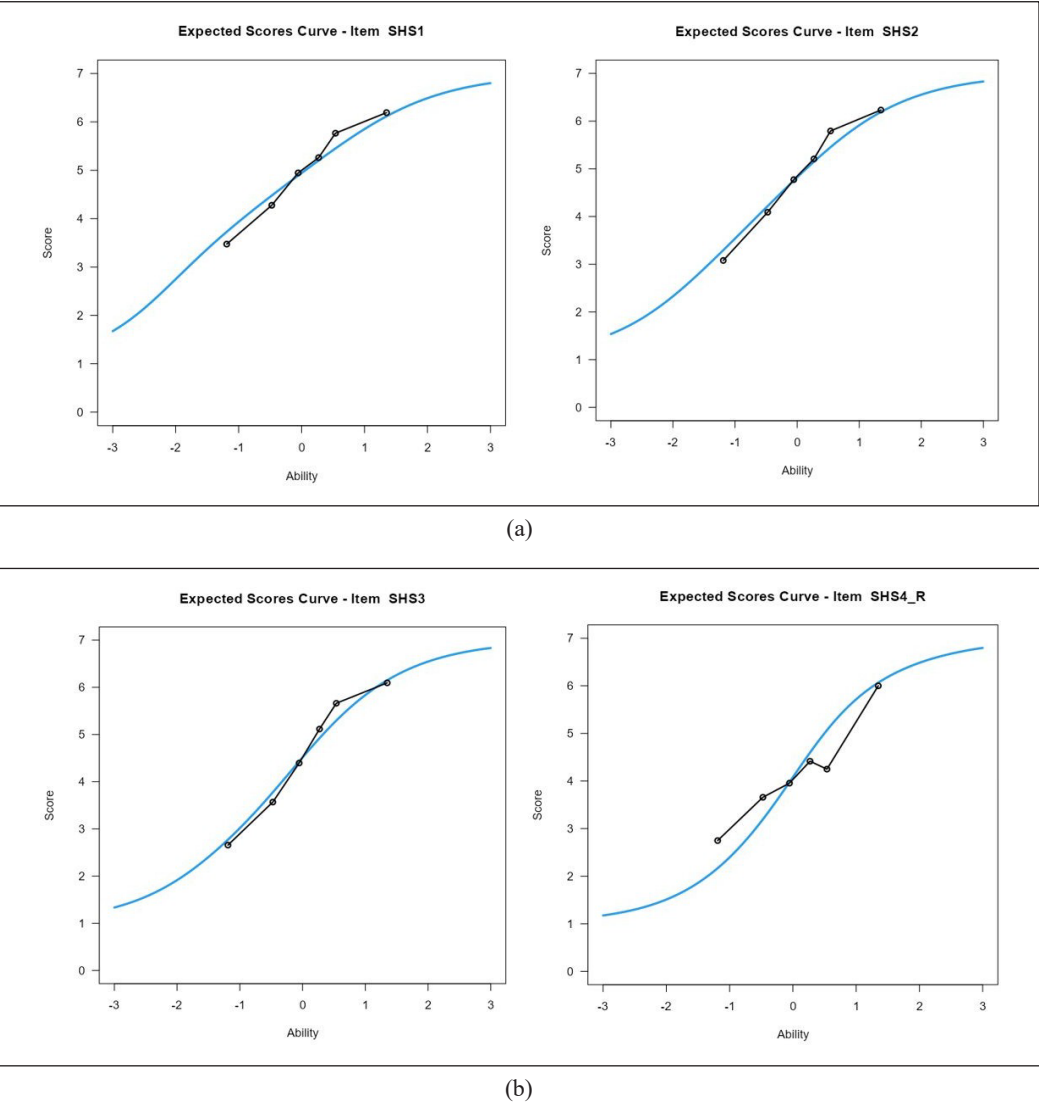


Figure 2. Item Characteristic Curve (ICC): (a) ICC for item 1 (SHS1) and 2 (SHS2); and (b) ICC for item 3 (SHS3) and 4 (SHS4_R)
Source: Authors' work

in shifting the items' infit/outfit scores. These results suggest that the response patterns for items 1-3 are consistent with the hypothesised/expected model. However, item 4 shows a noticeable deviation between the actual response pattern (jagged line) and the expected pattern, which aligns with the item's unacceptable infit/outfit scores. Despite this result, the actual response pattern for item 4 appears to be slightly aligned with the expected pattern.

One can examine the rating scale deltas/thresholds to understand the response pattern in options. Based on the rating scale deltas, it was found that there is an increase in delta values from category 1 (i.e., response 1 = not at all/less happy) to category 7 (i.e., response 7 = a great deal/happier). This indicates that the higher the response category, the higher the ability (level of happiness) individuals possess to respond to that option. Thus, the response options of the SHS items function effectively (see Table 6, the tauCat columns). Furthermore, the item difficulty of the SHS items tends to be low, although item 4 (or SHS4_R) appeared to be the most difficult to answer among the four SHS items.

DISCUSSION

This study provides empirical evidence that the Indonesian version of the SHS is reliable, and its scores adequately represent the construct of happiness. The SHS demonstrated good reliability. The gathered validity evidence, based on internal structure and relationships with other variables, supports the accurate interpretation of the SHS scores in the Indonesian version. Regarding internal structure, the results of the CFA analysis indicate that the relationships between items and test components are consistent with the theoretically proposed SHS construct model. Additionally, the SHS showed associations with other measurement tools, such as the Satisfaction with Life Scale (SWLS) and psychological distress indicators, as measured by the GHQ-12.

Furthermore, the SHS scores were able to differentiate individuals with high psychological distress from those with relatively low distress. In the IRT analysis, the response patterns for each SHS item generally aligned with the expected SHS construct. We also found that the overall

Table 6
Rating scale deltas/thresholds and item difficulty

Item	Beta*	tauCat 1	tauCat 2	tauCat 3	tauCat 4	tauCat 5	tauCat 6	tauCat 7
SHS1	-1.615	-5.900	-0.303	-0.192	0.683	1.103	1.917	2.692
SHS2	-1.502	-5.900	-0.303	-0.192	0.683	1.103	1.917	2.692
SHS3	-1.270	-5.900	-0.303	-0.192	0.683	1.103	1.917	2.692
SHS4_ R	-0.977	-5.900	-0.303	-0.192	0.683	1.103	1.917	2.692

Note. *Beta = Item difficulty
Source: Authors' work

difficulty level of the SHS items was low, and the response options functioned as expected, showing an increase in ability with higher response choices.

Overall, the SHS remains a suitable measure of happiness. The findings of this study are consistent with various previous studies in multiple countries, such as Malaysia (Swami, 2008), Greece (Karakasidou et al., 2016), and Nigeria (Agbo, 2021), which also found high reliability of the SHS and adequate CFA validity evidence (Agbo, 2021; Karakasidou et al., 2016). The results of the CFA analysis also suggested that the SHS is a unidimensional construct, namely Happiness. This is consistent with other studies using CFA (Powell et al., 2020). Furthermore, the SHS and SWLS were moderately positively correlated, suggesting that both measures assess related constructs of happiness, though they focus on different aspects. The SWLS measures the cognitive dimension of happiness, while the SHS measures a broader, subjective evaluation that encompasses both mental and affective happiness. The correlation between the SHS and GHQ-12 was significant but negative, indicating that higher happiness levels were associated with lower levels of psychological distress. The Indonesian version of the SHS also effectively differentiated between individuals experiencing psychological distress and those who were not. Individuals with a GHQ score of 11 or higher tended to report lower levels of happiness compared to those without psychological distress. The IRT analysis further showed that

SHS items aligned well with individual happiness levels—individuals with higher happiness were more likely to select higher response options on the SHS. This finding is consistent with the research by Powell et al. (2020). Additionally, the local dependence observed in this study and in Powell et al.'s (2020) research indicates a strong relationship between certain SHS items, particularly between items 1 and 2. However, further research is needed to confirm potential overlap with these items.

Upon closer examination of the SHS items, item 4 exhibited poor item discrimination ($r = 0.186$), weak inter-item correlations ($r = 0.163$ – 0.167), low factor loading (0.20), and misfit conditions (infit = 1.68; outfit = 1.69). This finding is consistent with several previous studies (O'Connor et al., 2015; Powell et al., 2020), which also reported that item 4 performed poorly statistically. This suggests that item 4 may not assess happiness as effectively as the other three items. The item's poor psychometric properties could be attributed to its linguistic structure, specifically its use of long sentences with multiple negative phrases, such as “not happy” or “not very happy.” Lengthy and negatively phrased items can make it more difficult for individuals to understand the question's intent (O'Connor et al., 2015; van Sonderen et al., 2013).

The IRT analysis also indicated that item 4 was the most challenging in the SHS. We hypothesise that Indonesians may find it difficult to imagine a general state of “unhappiness,” particularly when

this state is dissociated from psychological distress (e.g., depression). In the Indonesian mindset, if an individual feels happy, others around them are expected to feel happy too. This expectation is linked to the strong social bonds between individuals, which maintain social harmony (Uchida & Ogihara, 2012; Miyamoto et al., 2017). However, when presented with the idea that “there are people who are generally unhappy even though they are not experiencing depression or pressure,” Indonesians tend to feel somewhat confused. This is because, in their perception, good social harmony should correlate with the absence of unhappiness. This concept is tied to the strong connection between the self and others in collectivist cultures (Miyamoto et al., 2017). Moreover, expressions of happiness or positive emotions in collectivist cultures are often more subdued than in individualistic cultures, as extreme displays of emotion may disrupt social harmony (Miyamoto et al., 2017). Nevertheless, further research is needed to explore and clarify these findings and hypotheses.

In terms of the conceptualisation of the construct, the SHS contains items that can measure global happiness. Compared to several previous measurement tools, such as Cantril’s Ladder (Cantril, 1965), the SWLS (Diener et al., 1985), and the SPANE (Diener et al., 2009), most of the SHS items tend to be more straightforward, fewer in number, and address the global nature of happiness. Cantril’s Ladder consists of only one item, which raises concerns about its psychometric properties. The items of the

Indonesian version of the SHS appear to be easily understood by the Indonesian urban population. In other words, these items represent the operationalisation of global happiness as individuals experience it.

The Indonesian version of the SHS is well-suited for use in the general population, particularly among non-clinical groups. This is evidenced by the diverse backgrounds of the research sample of the current study, none of whom had specific diagnoses. However, based on the findings of this study, it appears that the SHS also has the potential to be used in clinical populations, such as individuals with depression or anxiety disorders. This assumption is supported by the finding that the SHS can significantly differentiate between groups of individuals with high and low levels of psychological distress. Furthermore, using SHS in other age groups, such as older adults or adolescents, may need further consideration through additional research. In adolescent or childhood age groups, it may be slightly more challenging to understand the existing items (especially item 4), and the concept of “happiness” may not be fully understood yet. On the other hand, in the older adult age group, this version’s items may need to be presented more concisely and with fewer negative words to facilitate comprehension.

This study has some significant contributions to developing and adapting the Subjective Happiness Scale (SHS). First, based on a large and diverse sample, it provides a comprehensive psychometric evaluation of the Indonesian SHS using both

Classical Test Theory and Item Response Theory. Second, it reveals cultural nuances in how happiness and unhappiness are perceived, particularly the consistent misfit of item 4. Lastly, these results highlight the importance of culturally sensitive adaptations of global well-being measures and offer a theoretical basis for future cross-cultural research on subjective happiness.

CONCLUSION

In conclusion, various tools are available to assess happiness levels, including the Subjective Happiness Scale (SHS), which measures an individual's overall subjective happiness. Psychometric analysis based on Classical Test Theory (CTT) indicates that the SHS demonstrates good reliability, with all three items showing solid discriminatory power. Moreover, several pieces of valid evidence support the interpretation of SHS scores as a measure of happiness. To complement CTT, Item Response Theory (IRT) was also employed to analyse the strength of each item in representing the construct of happiness. Both analytical approaches suggest that the items on the SHS and the scale adequately capture the construct of happiness. However, item 4 exhibited weaker psychometric properties, implying its contribution to the happiness construct is relatively low. Therefore, revising item 4 in future applications of the Indonesian version of the SHS may be advisable. It is recommended that experts in well-being and linguistics be involved in this revision process. However, Lyubomirsky and Lepper (1999) and Lyubomirsky (2025)

state that item 4 may be omitted when measuring happiness. Overall, the SHS is suitable for research and for measuring global subjective happiness in various areas. We also recommend revising the item 4 and conducting follow-up studies to evaluate its quality in a cross-cultural context.

Limitations and Recommendations

Several limitations were identified in this study. Firstly, regarding the sample. Although the sample size was sufficient, most respondents were from Jakarta and West Java. Obtaining data from more regions (predominantly rural areas) could broaden the generalizability of SHS usage and provide a more comprehensive understanding of happiness and the age range of respondents. Most respondents were young adults. Therefore, the representation of responses from other age groups (predominantly middle and late adulthood) must be improved. Representation from middle and late adulthood age groups is crucial as changes in happiness levels occur during these ages (Blanchflower, 2021). For future studies, research should involve a broader range of respondents, particularly age and residential location. Secondly, the validity of the evidence should be considered, specifically the relationship between the SHS and the measurement tools used to assess other variables. This study only used the SWLS to determine a variable like the SHS (convergent validity). The SWLS only measures happiness based on cognitive aspects, while the SHS measures global happiness (both cognitive and affective).

Therefore, further research should also employ measures of the affective component of happiness, such as the PANAS and SPANE.

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Cultural Expressions of Purity through Religious and Traditional Symbols in Sarawak's Ethnic Heritage

Mohamad Maulana Magiman^{1*}, Fauziah Abu Bakar², and Amit Kumar Mandal¹

¹*Department of Management and Science, Faculty of Humanities, Jalan Nyabau, 97000 Bintulu, Sarawak, Malaysia*

²*Faculty of Agricultural and Forestry Science, Universiti Putra Malaysia Sarawak, Jalan Nyabau, 97000 Bintulu, Sarawak, Malaysia*

ABSTRACT

This study investigates the pivotal role of purity in ritual practices among the ethnic communities of Sarawak, emphasising how these practices shape symbolic expressions and foster social cohesion. Grounded in the theory of purity, the research examines how rituals utilise symbols such as unblemished rice, white cloths, and sacrificial animals to bridge the human-spiritual divide. A qualitative ethnographic approach was employed, involving in-depth interviews with forty cultural practitioners from various groups, including the Iban, Salako, Kadayan, Malay, and Penan. Data collection also included participant observation and direct documentation of rituals within these communities. The findings demonstrate that purity functions as a unifying motif across diverse ritual contexts, facilitating divine favour, reinforcing cultural identities, and alleviating social tensions. Specific rituals such as the Kadayan (*Makan Tahun*), Salako (*Nyangahant*), Penan (*Pakan*), Malay (*Tepung Tawar*), and Iban (*Sabak Bebuah*) illustrate how the emphasis on pure offerings underscores the belief that spiritual harmony depends on symbolic perfection. This research contributes to the development of a culturally grounded framework referred to as the theory of purity that explicates how rituals sustain cultural identity and promote social harmony. It underscores the importance of understanding symbolic systems, ritual performance, and indigenous practices within anthropological scholarship, especially in the context of cultural resilience amid modern challenges. The paper concludes with a call for further research into the impact of modernisation on traditional rituals across Southeast Asia.

Keywords: Divine, ritual, symbols, Sarawak culture, traditional and religious

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E-mail addresses:

mdmaulana@upm.edu.my (Mohamad Maulana Magiman)

ab_fauziah@upm.edu.my (Fauziah Abu Bakar)

gs67724@student.upm.edu.my (Amit Kumar Mandal)

* Corresponding author

INTRODUCTION

Since ancient times, rituals have served as sacred practices that celebrate and reinforce the religious and cultural identities of societies. Rituals encompass a sequence of words, gestures, and actions

performed in a prescribed order, tailored to specific occasions. (Turner, 1967) also defines “rituals” as ceremonial acts where customary actions are systematically enacted, emphasising their role in social and religious frameworks. These practices vary widely, encompassing types such as worship rites, funerals, marriages, coronations, and rites of passage, each carrying distinct symbols that convey meaning within a community. The regional rituals are determined by social traditions, which are also influenced by a religious society. In culture and social anthropology, rituals are understood as expressions of collective values, cosmological systems, and mechanisms for maintaining societal balance (Ahmed, 2022). For example, various ethnic groups in Sarawak include medicinal plants in their traditional healing practices and incorporate these rituals into their cultural heritage (Bakar et al., 2023). These various types of ritual, whether social, religious, or involving offerings, dance, or sacred objects, act as a channel of spiritual and communal significance. Understanding the symbols is crucial to interpreting the meaning and purpose of rituals, which is most significant among different types of rituals. During worship rituals, symbols such as altars or incense frequently signify divine connection. Meanwhile, in funerary rituals, items such as white cloths or specific foods signify purity and the transition to the afterlife (Turner, 1980). However, rings or woven mats symbolise unity and commitment in marriage ceremonies; the rituals of passage serve as an opening ritual,

with objects such as masks and tattoos marking the transition to a new stage of belonging.

In Sarawak, the ethnic diversity of groups such as Iban, Bidayuh, and Melanau is reflected in symbols like rice, pigs, and dance movements that represent local beliefs and traditions (Chong et al., 2017). Researchers such as Rossano (2012) and Magiman (2011), asserts that symbols inspire gratitude, promote community unity, and represent spiritual energies, bringing practitioners closer to their cultural and cosmological roots. Throughout these various types of rituals, symbols play a vital role in providing valuable insights into the religious, social, and historical backgrounds of traditional communities. This study examines the role of purity in Sarawak’s rituals, aiming to explore how divine, religious, and traditional concepts, framed by the theory of purity, shape the practices of ethnic groups and their significance for community cohesion and identity preservation, based on a decade of ethnographic research.

Rituals in Sarawak

Sarawak, one of Malaysia’s largest states, is home to nearly 34 indigenous ethnic groups, each contributing to a rich tapestry of cultural and ritual diversity. The diversity emerges from socialisation processes that intertwine ethnic traditions with broader societal norms. Data for this study were gathered over a decade of observing rituals among major groups like the Malay, Melanau, Iban, and Bidayuh, as well as smaller communities

such as the Penan, Salako, and Kadayan. Christianity predominates as the largest religion in Sarawak, yet indigenous rituals remain deeply symbolic, interconnected, and reliant on objects or actions that carry significant meaning.

Theory of Purity

The theory of Symbolic Purity was developed based on the earlier studies of Turner (1957, 1967, and 1969) and Douglas (2023). Turner conceptualised rituals as social processes essential for maintaining social structure, socialising individuals, and resolving conflicts to ensure communal well-being. Douglas, meanwhile, examined symbols within ritual practices, interpreting them as rules that signify cleanliness and impurity. Based on these studies, Magiman (2013) identified gaps that required further exploration, particularly in research on ethnic minorities in Sarawak. These gaps pertained to contemporary lifestyle patterns and the cultural understandings reflected in their rituals. To address them, the theory of Symbolic Purity was introduced, emphasizing the forms of purity in ritual practices, with particular attention to execution methods and the equipment used. This theory highlights a supplementary element overlooked by Turner and Douglas, who primarily viewed rituals as social dramas embedded with symbols. It thus represents a logical extension of their concepts, as evidenced by the presence of elements of symbolic purity in every ritual. Furthermore, it encompasses all aspects of ritual practice, from material preparation to

implementation, ensuring that each ritual successfully mediates and resolves social conflicts while reinforcing cultural values and maintaining social cohesion.

After a decade of research, Magiman et al. (2020b) introduced the theory of purity, building upon Turner's theories (1957, 1967, & 1969) and extending the purity symbol model first developed in 2012. Turner and Abrahams (1995) described rituals as dramatic social processes essential for survival, whereas Magiman, and Yatim (2012) built upon Turner's (1967) ritual structure, emphasising the role of meaningful symbols. The theory of purity claims that symbols used in rituals must be flawless and free of defects or impurities to secure divine blessings. For example, in the Salako's *Nyangahant* ritual, a pig offered as a sacrifice must be visually perfect and disease-free. Similarly, in Kadayan's *Makan Tahun* ritual, the rice used symbolically must be harvested from the designated year of the ritual. Although the practices differ, both groups perform them to obtain God's blessings, believing that purity provides the solution to every problem. According to Magiman et al. (2020b), every problem and crisis can be resolved by seeking God's peace through performing rituals guided by the concept of purity. Moreover, many rituals symbolise purity and are interconnected, with their symbols closely reflecting this concept. The theory is structured around three key components, as shown in Figure 1. Animism reflects the concept of deities and religious beliefs. Magiman further explained that its components are

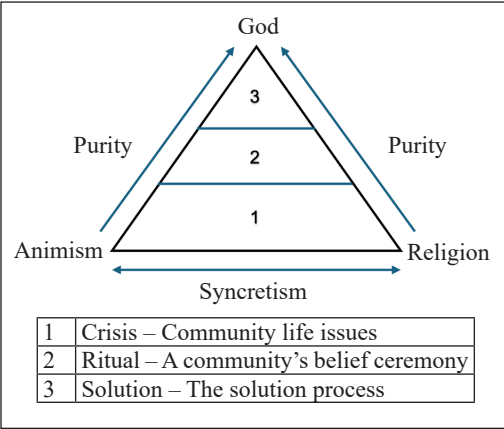


Figure 1. Theory of purity symbols (Adnan, et al, 2023)

divided into divinity, traditional beliefs, and religion. This theory emphasises a cycle of crisis, ritual performance, and resolution, in which purity-based practices help address social tensions and restore harmony.

Divinity

Divinity, a core component of the theory of purity, centers on the concept of a supreme deity underpinning all rituals. In Sarawak’s Iban community, the *Gawai Antu* ritual honours ancestral spirits in favor of *Petara*, the supreme god. Offerings like rice and chicken must be meticulously prepared to ensure purity, reflecting the belief that divine acceptance hinges on flawless execution Langub (2023). Recent studies, such as Paranjothy (2024) and Smith, (2024), emphasize how divinity in rituals globally reinforces communal trust in a higher power, aligning with the Iban’s practices and extending to groups like the Bidayuh and Orang Ulu, who share similar reverence for purity despite differing deity names.

Traditional Beliefs

The role of top-down belief Irving et al. (2024) in fostering social cohesion and managing anxiety during naturally occurring collective ritual is a central focus. These beliefs, often rooted in cultural or societal norms, influence individuals’ behaviors and emotional responses during such rituals. Traditional beliefs passed down from ancestors create an intangible yet enduring foundation for Sarawak’s rituals, motivating communities to engage in practices that cultivate divine peace and blessings throughout their lives. Recent studies (Smith & Johnson, 2023) have demonstrated how these ancestral traditions preserve cultural identity worldwide, echoing Sarawakian practices where rituals connect the past and present through symbolic continuity.

Religion

Religion influences rituals as a foundation for the afterlife or to achieve well-being in the present, fostering harmony within communities that place a strong emphasis on divine rewards for good deeds. Christianity and indigenous faiths coexist in Sarawak, and everyone reinforces the concept of purity through structured practices. Recent research by Patel (2014) highlights how rituals foster moral unity around the world, a principle that is evident in Sarawak’s diverse yet cohesive ritual landscape.

Although the community acknowledges the importance of intention and spiritual honesty, the theory of purity places a strong emphasis on the integrity of ritual components. During difficult times, such as

illness, financial difficulties, or a pandemic, regulations can be loosened while still being deemed sufficient if they are applied with genuine zeal. The spirit of the sacred is preserved in some communities through symbolic sacrifices, rather than actual ones. Because of this adaptability, rituals are less inflexible and more inclusive of changing populations.

METHODS

Research Design

This study employs a qualitative method grounded in ethnography, an approach that examines human behavior within its social and cultural context. It facilitates an in-depth exploration of people's experiences in everyday life, making it ideal for analysing the concept of purity in Iban cultural rituals. The researcher gathered data through a combination of in-depth interviews and participant observation, which enabled close observation of rituals and captured subtle details in actions, symbols, and meanings.

The Selection of Research

Participants were chosen through a purposive sampling, focussing on cultural practitioners directly involved in ritual performance across Sarawak's diverse ethnic groups, including Malay, Melanau, Iban, Bidayuh, Penan, Salako, and Kadayan. These individuals, often referred to as leaders in rituals, elders, or traditional healers, were aged between 30 and 75 years and comprised both men and women, reflecting the diverse roles within their communities. Selection criteria based on the

in-depth knowledge of their group's rituals, ensuring the relevance of the data. In this study, 40 participants were interviewed, ensuring representation from each of the major ethnic groups. Additionally, the researcher observed ritual ceremonies across these communities, documenting practices such as offerings, dances, and purification rites to supplement the interview data.

Through the Interview Method

In this study, most data were collected through in-depth, semi-structured interviews, with additional insights gained from participant observation over twelve to fifteen years. Interviews were conducted at the participants' convenience, often in community settings such as longhouses or during ritual events, with durations ranging from one to three hours. Using a semi-structured approach allowed the researcher to tailor questions to each group's distinct practices, enabling a deeper exploration of the researcher's rationale for practitioners' experiences, beliefs, and the symbolic significance of rituals. For instance, practitioners from Iban were questioned about the *Gawai Antu*, whereas Salako participants discussed the sacrificial elements of the *Nyangahant* ritual. Multiple interviews were conducted within the same ethnic group to account for variations in practice and perspective, with immediate post-interview recordings (via audio and detailed notes) ensuring accuracy. Observations spanned multiple ceremonies per group, providing a longitudinal view of ritual consistency and change. This

prolonged engagement, averaging two or three years per major ethnic group, enriched the dataset and supported its use for future academic reference.

Data Analysis

Data analysis was guided by the theory of purity, which frames rituals as acts seeking divine peace and well-being using symbolically pure elements. In this study, thematic analysis was used to identify, organise, and interpret the data. Initially, transcripts of the interview were systematically coded to emphasise recurring themes, such as divinity, purity, and community harmony. For example, references to flawless sacrificial animals or specific rice types were grouped under “purity symbols.” Second, these themes were cross-checked against the theoretical framework to assess their alignment with practitioners’ intentions and beliefs. To ensure authenticity, data were triangulated by comparing interview responses with observation findings and, where possible, validated through discussion with another practitioner from the same group. Gained a more profound understanding of the underlying meaning of the ritual performance and how purity is central to its spiritual and social significance through this iterative process.

Duration of Study

This study follows a phased research timeline of twelve to fifteen years, reflecting an organised approach to the research process. The initial years (2008-2013)

focussed on building trust with communities, conducting preliminary observations, and identifying key informants. The subsequent phases (2014-2020) involved intensive data collection, with the researcher spending 6-12 months each year in Sarawak, rotating among different ethnic groups. For instance, two years were dedicated to the Iban, which included multiple *Gawai Antu* observations, while shorter periods of 6 to 8 months sufficed for smaller ethnic groups, such as the Penan. The final years (2021-2023) refined data through follow-up interviews and analysis, ensuring comprehensive coverage across groups.

Ethical Considerations

Ethical integrity was paramount, given the study’s focus on Indigenous communities and their spiritual practices. Before commencing fieldwork, approval was obtained from the Institutional Ethics Review Board affiliated with the researcher’s academic Institution. Informed consent was secured from all participants, and verbal and written explanations were provided in the local languages, Malay and Iban, to ensure comprehension. Participants were informed of the study’s purpose, their right to withdraw, and the intended use of data, including the potential for publication, while sensitive content was excluded unless approved. Cultural sensitivity was maintained by respecting ritual protocols, such as refraining from interrupting ceremonies and adhering to community dress codes, thus ensuring the research honoured participants’ traditions and beliefs.

RESULTS

This study, spanning a decade of ethnographic research by Mohamad Maulana, examines the rituals of Sarawak's diverse ethnic groups: Penan and Salako, Iban, Melanau, Kadayan, and Malay, through the lens of the theory of purity. In Sarawak, 34 indigenous groups showcase a rich tapestry of rituals intertwined with social traditions and religious beliefs, predominantly Christianity, yet rooted in indigenous cosmologies. The theory of purity, developed by Magiman (2023), posits that rituals hinge on flawless symbols to secure divine blessing, resolving crises and fostering communal harmony. Findings reveal three interconnected elements: divine, religious, and traditional, underpinning these elements, analysing their social, spiritual, and cultural functions, drawing comparative insights, and culminating in a synthesis of symbols' roles.

The Divine Element

The divine element reflects a universal belief in a supreme deity transcending human comprehension, shaping rituals across Sarawak's ethnic groups. Practitioners view divinity as a source of protection and well-being, with rituals designed to align with god's will. Just as Keane (2003) highlights the semiotic importance of material objects in ritual as carriers of social and spiritual meanings, in Borneo, these tangible artifacts are vital in reinforcing religious belief and societal values. For the Kadayan, the *Makan Tahun* ritual involves rice distribution accompanied by *Yasin* recitations, seeking

Allah SWT's blessings for economic stability. A Kadayan elder explained, "the rice must be from this year's harvest, pure and untouched to carry out prayers to god". Similarly, the Melanau Likow's Serarang ritual (Figure 2) invokes *Ipok*, a sea-protecting deity, through offerings at sacred coastal sites, ensuring abundant catches for fishermen. The Iban's *Gawai Antu* honors *Petara* via purified offerings like rice and chicken, as an ap practitioner noted, "*Petara* only accepts what is clean; it's our way to stay blessed".

Comparatively, the Salako's *Nyangahant* (Figure 3) and Penan's *Pakan* (Figure 4) use animal sacrifices, pigs and chickens slaughtered with precision to maintain purity, appealing to *Jubata* and *Ratalak*, respectively. Unlike monotheistic Kadayan practices, these polytheistic rituals reflect a broader Southeast Asian pattern, akin to Dayak rituals in Kalimantan, where multiple deities govern specific domains (Turner, 1967). The theory of purity applies here as a framework: flawless symbols (disease-free animals) bridge the human-divine divide, reinforcing spiritual authority and communal resilience against crises like famine or storms.

Religious Elements

Religious elements in Sarawak's rituals blend indigenous beliefs with organized faiths, adapting to community needs like marriage, illness, or death. (Casey, 2021) Notes religion's fluidity, a view echoed by (Shokeran & Magiman, 2019), who highlight how penan rituals prioritise

performance over texts, unlike Islamic practices among the Kadayan. The Malay *Tepung Tawar* (Figure 5) at weddings exemplifies this, with *Pak Imam* reciting

prayers over flour mixed with flowers and gold (Figure 5), symbolising purity for marital longevity. A Malay official stated, “The flour must be untainted; it carries



(a)



(b)

Figure 2. Melanau Likaw (Serarang): (a) Delivery from Serarang to Ipok; and (b) Kubo Beliseng is the sacred house for Ipok



(a)



(b)

Figure 3. Salako (Nyangahant): (a) Tuha Adat is reciting a mantra to invoke Jubata; and (b) Tuha Adat assistant is reciting apply for permission to use the area to perform the Nyangahant ritual



Figure 4. Penan (*Pakan*): (a) Presentation to *Ratalak*; and (b) the traditional chief reads the *Mentera* as an offering to *Ratalak*



Figure 5. Malay (*Tepung Tawar*): (a) Flowers are used as an ingredient in plain flour; and (b) finished unsalted flour

our hopes to Allah”. In contrast, the Iban’s *Sabak Bebuah* ritual uses white cloth (Figure 6) to purify the deceased’s spirit, easing its heavenly journey, a practice rooted in animism yet influenced by Christianity’s emphasis on sanctity (Geertz, 1973).

These rituals show how ancient belief systems and modern religions continue to interact. For example, Malay *Tepung Tawar* keeps some animist traditions, like using fresh flour and flower petals, but also includes Islamic blessings. Similarly, the Iban *Sabak Bebuah* ceremony uses white cloth to purify the spirit, combining traditional knowledge

of spiritual transformation with Christian ideas of sanctity. This blend of traditions highlights how rituals can bring together older and newer beliefs.

Comparatively, Kadayan *Makan Tahun* and Malay *Tepung Tawar* align with Islamic purity norms, while Iban and Salako rituals retain pre-Christian animistic cores, paralleling Sulawesi’s Toraja funeral rites, where purity ensures spiritual passage (Magiman et al., 2020). The theory of purity illuminates how religious leaders, whether *Ustaz* or *Tuha Adat*, enforce ritual standards, mediating divine favour to



Figure 6. Iban (*Sabak Bebuah*) : (a) *Tukang Sabak* is reciting a mantra to invoke *Petara*; and (b) The ceremony to pay last respect in *Sabak Bebuah* ceremony

address social needs, from marital stability to communal mourning.

Symbolic purity is considered essential for ritual efficacy, which is why untainted items such as flour, coconut, and white cloths are emphasised. Practitioners believe these components serve as spiritual currency, conveying sincerity to the deity. The notion that purity is not only aesthetically pleasing but also vital for divine interaction is supported by the fact that failing to meet these standards is often seen as disrespectful and spiritually meaningless, to highlight the importance of purity in fostering meaningful divine engagement (Whitehouse, 2024).

Traditional Elements

Traditional elements anchor Sarawak's rituals in inherited customs, promoting peace amid environmental and social challenges. The Salako *Nyangahant* (Figure 7) uses

pigs and chickens, slaughtered uniquely without severing arteries, as offerings to *Jubata*, symbolising purity and gratitude. A Salako practitioner remarked, "The chicken's life is given whole to *Jubata*; it must be perfect" (Interview, 2018). Dishes such as chicken prepared perfectly in the *Nyangahant* ritual serve as a nonverbal symbol of purity and gratitude, reinforcing communal bonds (Chelum et al., 2023). However, the Iban *Sabak Bebuah* employs *sapat* (white cloth) and animal leaps over corpses for purification. At the same time, the Kadayan's *Makan Tahun* (Figure 8) uses rice-based *kelupis* to signify sincerity (Keti et al., 2019). The Penan's *Pakan* incorporates grated coconut (Salleh et al., 2020), reflecting purity of intent.

These practices mirror broader Bornean traditions, such as the Bidayuh's use of rice in cleansing rites, yet differ in their execution. Salako's bloodless slaughter



Figure 7. Salako (*Nyangahant*): (a) Uses pigs; and (b) chickens in the ritual



Figure 8. Kadayan (*Makan Tahun*): *Kelupis* to signify sincerity

contrasts with Iban’s visceral offerings. The theory of purity ties these to social cohesion: pure symbols resolve conflicts like land disputes by invoking divine oversight, aligning with (Magiman & Nordin, 2021), the View of cultural norms as communal stabilisers.

Discussion of Symbols

Symbols in Sarawak’s rituals, such as rice, animals, cloth, and flour, transcend mere objects, embodying purity as a conduit to the divine, religious, and traditional realms. Rice in *Makan Tahun* (Kadayan) and

coconut in *Pakan* (Penan) signify sincerity, paralleling Southeast Asian rice cults where crops link humans to gods (Douglas, 2003). Animals in *Nyangahant* (Salako) and *Gawai Antu* (Iban) signify sacrifice, their perfection ensuring acceptance, a motif shared with Balinese Hindu offerings. Cloth in *Sabak Bebuah* (Iban) and flour in *Tepung Tawar* (Malay) purify the transitions between death and marriage, reflecting the role of purity in life cycle rites across the region. Politically, these symbols reinforce authority, as seen in *Tuha Adat*’s role, while spiritually, they mediate crises, aligning with (Ahmed, 2022) Cosmic symbolism. Leaders of the Salako customary group, such as *Tuha Adat*, uphold the purity of *Nyangahant* symbols through the management of rituals, ensuring cultural continuity. Their consistent requirement for purity underscores a universal intent: to secure blessings, protection, and harmony, while validating the theory that purity has analytical power.

Modern and Continuity

Rituals continue to evolve in Sarawak, remaining relevant as communities adapt

to modern life. Certain ethnic groups have begun using videos or in-person appearances at cultural festivals to document their rituals. Schools, colleges, and universities enable their young people to host seminars on traditional beliefs. Rituals such as the *Sabak Bebuah* of the Iban and the *Makan Tahun* are preserved and remain accessible in a modern setting due to this adoption. Such innovations demonstrate the ongoing significance of rituals. Rice, flour, and white cloth exemplify symbols that serve more than merely ceremonial purposes; they also help to codify social identity and generational memory. Frequently crafted by hand and cherished within families, the fabrics used in Iban funerals function as both tangible artifacts and cultural narratives. In *Makan Tahun*, rice is more than just a food item; it is harvested ceremoniously and embodies communal and seasonal cycles. In an era of rapid modernisation, these artifacts maintain spiritual continuity and foster a sense of belonging.

CONCLUSION

This study has illuminated the central role of purity in shaping the rituals of Sarawak's ethnic groups, demonstrating how divine, religious, and traditional elements, framed by the theory of purity, underpin their practices and significance. Over a decade of ethnographic research reveals that purity, embodied in flawless symbols like rice in the Kadayan *Makan Tahun*, pigs in Salako *Nyangahant*, and white cloths in the Iban *Sabak Bebuah*, serves as a conduit for divine blessings, religious adaptation, and

traditional continuity. These rituals align with Turner's view of ceremonial acts as social mediators and Geertz's interpretation of symbols as cultural expressions, resolving crises and reinforcing community cohesion across Sarawak's 34 indigenous groups.

The findings show that divine elements, such as *Petara's* favour in the Iban *Gawai Antu*, hinge on pure offerings to ensure protection, while religious elements, like the Malay *Tepung Tawar's* untainted flour, adapt purity to Islamic norms for marital stability. Traditional elements, exemplified by the Penan's coconut in *Pakan*, anchor rituals in ancestral customs and promote harmony amid challenges. The theory of purity unifies these dimensions, highlighting how impeccable symbols bridge human and spiritual realms, fostering identity preservation by documenting Sarawak's ritual heritage and sustainability against the threats of modernisation (Rozaimie et al., 2023) and scholarship by enriching ritual studies with a localised yet regionally resonant framework. Future research could compare Sarawak's purity-driven rituals with those of other Southeast Asian Indigenous groups, such as the Toraja, or utilise quantitative methods to assess the impact of participation on cohesion. Investigating the effects of globalisation on these practices could enhance their vitality in the future. The changing roles of spiritual leaders, such as *Tuah Adat*, the *Pak Imam*, and the ritual elder, have dual roles as both religious authorities and cultural guardians, as indicated by their evolving roles in Sarawak. They now have responsibilities to

extend beyond ceremonial enforcement and encompass the protection of the collective identity. As spiritual leaders, they continue to conduct rituals such as *Makan Tahun* within the Kadayan community, where their profound spiritual understanding ensures that they adhere to the divine precepts. They also serve as stewards of cultural continuity, conserving sacred artefacts such as Iban *Pua Kumbu* along with oral traditions, songs, and ritual knowledge that have been passed down through the ages. By adapting rituals to today's religious pluralism and promoting syncretic practices that both uphold tradition and embrace contemporary contexts, these leaders are actively engaged in educating the new generation. Despite obstacles such as migration, resource scarcity, and generational divides, their work remains vital. They are essential for maintaining the rich ritual and ethnic heritage of Sarawak in a rapidly changing cultural landscape, provided that they receive institutional support.

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Conflicts of Interest

The authors declare that they have no conflicts of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results”.

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Analisis Keberkesanan Lembaran Kerja (LK) UMIBaKaP untuk Meningkatkan Kemahiran Menulis Bahasa Melayu: Satu Kajian Kes

Vijayaletchumy Subramaniam^{1*}, Richard Ignacy², dan Mohamed Thariq Hameed Sultan³

¹Department of Malay Language, Faculty of Modern Languages and Communication, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia

²Department of Malay Language Studies, Institut Pendidikan Guru Malaysia Kampus Bahasa Melayu, 59990 Lembah Pantai, Kuala Lumpur, Malaysia

³Department of Aerospace Engineering, Faculty of Engineering, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia

ABSTRAK

Permasalahan pelajar dalam penulisan karangan sering dikaitkan dengan kelemahan mengolah ayat secara berkesan. Pengolahan ayat memerlukan pemahaman dan penguasaan penggunaan penanda wacana yang sesuai, pertautan ayat yang relevan, variasi bahasa, dan frasa menarik serta memastikan tiada kesalahan ejaan, tatabahasa, dan tanda baca. Fokus kajian ini adalah untuk mengenal pasti permasalahan pelajar dalam penulisan karangan dari aspek bahasa, pemerenggan, dan kohesi di samping menilai keberkesanan penggunaan Lembaran Kerja (LK) UMIBaKaP dalam penulisan karangan peringkat Sijil Pelajaran Malaysia (SPM). Kajian ini menggunakan kaedah gabungan kualitatif dan kuantitatif melalui analisis dokumen, temu bual tidak berstruktur, soal selidik berstruktur, dan kajian kuasi eksperimen. Analisis dokumen melibatkan penilaian terhadap karangan pelajar untuk mengenal pasti kesalahan bahasa dan kelemahan dalam pemerenggan serta kohesi. Temu bual tidak berstruktur dengan guru Bahasa Melayu memberikan pandangan mengenai masalah yang dihadapi oleh pelajar dalam penulisan karangan. Soal selidik berstruktur mengumpul data daripada pelajar mengenai pengalaman mereka menggunakan LK UMIBaKaP. Kajian kuasi

eksperimen melibatkan perbandingan prestasi pelajar yang menggunakan LK UMIBaKaP dengan yang menggunakan kaedah tradisional. Hasil kajian menunjukkan peningkatan hampir 100 % dalam penggunaan LK UMIBaKaP berbanding kaedah tradisional dalam penulisan karangan untuk setiap perenggan. Pelajar yang menggunakan LK UMIBaKaP menunjukkan penguasaan yang lebih baik dalam penggunaan

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E-mail addresses:

vletchumy@upm.edu.my (Vijayaletchumy Subramaniam)

richard@ipgkbm.edu.my (Richard Ignacy)

thariq@upm.edu.my (Mohamed Thariq Hameed Sultan)

* Corresponding author

penanda wacana, pertautan ayat, dan variasi bahasa serta mengurangkan kesalahan ejaan, tatabahasa, dan tanda baca. LK UMIBaKaP terbukti sebagai satu alternatif terbaik untuk membimbing pelajar menghasilkan karangan yang cemerlang dan matang. Kajian ini mencadangkan penggunaan LK UMIBaKaP secara meluas dalam pengajaran dan pembelajaran bahasa Melayu bagi meningkatkan kemahiran penulisan pelajar pada peringkat SPM.

Kata kunci: LK UMIBaKaP, penanda wacana, pertautan ayat

ABSTRACT

Students' writing issues are often associated with their weakness in structuring sentences effectively. Sentence structuring requires understanding and mastery of appropriate discourse markers, relevant sentence connections, language variation, and engaging phrases, and also ensuring there are no spelling, grammar, or punctuation errors. The focus of this study is to identify the problems students encounter in essay writing from the aspects of language, paragraphing, and cohesion, alongside assessing the effectiveness of using the UMIBaKaP Worksheet (LK) in essay writing at the Malaysian Certificate of Education (SPM) level. This study employs a combination of qualitative and quantitative methods through document analysis, unstructured interviews, structured questionnaires, and quasi-experimental studies. Document analysis involves evaluating students' essays to identify language errors and weaknesses in paragraphing and cohesion. Unstructured interviews with Malay language teachers provide insights into the issues faced by students in essay writing. Structured questionnaires gather data from students regarding their experiences using the UMIBaKaP Worksheet. The quasi-experimental study compares the performance of students using the UMIBaKaP Worksheet with those using traditional methods. The results show almost a 100% improvement in the use of the UMIBaKaP Worksheet compared to traditional methods in essay writing for each paragraph. Students using the UMIBaKaP Worksheet demonstrated better mastery of discourse markers, sentence connections, and language variation, while also reducing spelling, grammar, and punctuation errors. The UMIBaKaP Worksheet has proven to be an excellent alternative for guiding students to produce outstanding and mature essays. This study recommends the widespread use of the UMIBaKaP Worksheet in the teaching and learning of the Malay language to enhance students' writing skills at the SPM level.

Keywords: Cohesions, discourse markers, LK UMIBaKaP

LATAR BELAKANG KAJIAN

Dokumen Standard Kurikulum dan Pentaksiran (DSKP) dalam Kurikulum Standard Sekolah Menengah (KSSM) Bahasa Melayu tingkatan 4 dan 5 menyatakan dengan jelas bahawa kemahiran menulis merujuk kemampuan pelajar untuk

menulis kata-kata dan meluahkan idea melalui pelbagai bentuk penulisan yang berhubung kait dengan sesuatu ilmu atau pengalaman peribadi yang pernah dialami.

Menurut Magesvaran et al. (2021) aspek bahasa seperti kegramatisan dalam ayat, tanda baca, ejaan, tulisan yang jelas

dan kemas diberikan penekanan yang tinggi. Hal ini turut dipersetujui oleh Mayasari et al. (2019) dan Fauzi et al. (2019) bahawa, kemahiran berbahasa pelajar dapat ditingkatkan seandainya pelajar dapat menyesuaikan idea dan memiliki proses pengembangan ayat yang baik.

Oleh itu, pelajar hendaklah sedar bahawa aspek kegramatisan ayat, tanda baca, ejaan, dan tulisan yang jelas amat penting dalam penulisan karangan memandangkan kesemua aspek ini boleh mempengaruhi markah pelajar secara keseluruhan. Aspek pemarkahan dalam penulisan karangan termasuklah isi, bahasa dan kematangan (Subramaniam et al., 2023).

Sehubungan dengan itu, objektif kemahiran menulis bahasa Melayu dalam kemahiran menulis mengutamakan tiga perkara berikut iaitu; (i) menulis untuk meramal sesuatu perkara, melengkapkan maklumat dan menjawab pelbagai soalan dengan menggunakan ayat yang gramatis; (ii) menulis untuk membina kerangka karangan dan karangan lengkap secara terancang dan (iii) menulis untuk mengolah maklumat daripada pelbagai bahan menggunakan ayat yang gramatis dan penanda wacana yang sesuai.

Seiring dengan matlamat makalah ini, pemilihan Standard Kandungan (SK 3.4) yakni, menulis untuk menghasilkan sesuatu penulisan secara terancang (Kementerian Pendidikan Malaysia [KPM], 2018) difikirkan amatlah relevan dalam mengetengahkan proses penulisan karangan yang sistematik, cemerlang dan menarik. Dalam konteks perbincangan penulisan

yang terancang, sesebuah karangan yang berkualiti dan cemerlang hendaklah diutamakan oleh setiap pelajar (Che Man et al., 2023; Clerehan & Moodie, 1997; Jusoh et al., 2023; Yaacob, 2017).

Selain itu, pengajaran kemahiran menulis berbantuan alat bantu mengajar juga akan meningkatkan kualiti karangan dalam subjek Bahasa Melayu (Raman et al., 2023). Di samping itu, pendedahan pelajar kepada teknik baharu, penghasilan modul karangan yang efektif, konsep penulisan yang menarik dan kaedah penulisan yang berkesan amatlah penting dalam memastikan pelajar tidak mengalami kesukaran untuk menulis karangan (Lydia & Jamaludin, 2022; Sanosi & Mahamod, 2021; Yune et al., 2022).

Penghasilan karangan yang kohesi bergantung pada strategi guru dalam memastikan pelajar menggunakan penanda wacana yang efektif dalam setiap ayat. Dalam usaha menghasilkan karangan pada tahap cemerlang, penggunaan penanda wacana amatlah penting. Hal ini dikatakan demikian kerana, penggunaan penanda wacana yang sesuai hendaklah diketahui dan cara pengaplikasiannya oleh setiap pelajar baik di sekolah rendah mahupun sekolah menengah.

Maka, setiap ayat yang ditulis hendaklah mempunyai pertautan yang baik dan seimbang dalam perenggan-perenggan yang berikutnya (Alias, 2019; Marliana et al., 2023). Realitinya, tidak dapat dinafikan bahawa, penyampaian idea melalui tulisan mahupun secara lisan haruslah mempunyai kesinambungan yang baik antara satu idea

dengan satu idea yang lain (Nawawi & Ting, 2022).

Dalam konteks ini, penggunaan penanda wacana yang efektif dapat memberikan pemahaman yang jelas terhadap idea atau isu yang hendak disampaikan (Sanosi & Mahamod, 2021; Yusuff & Awang, 2012). Kebanyakan kajian sebelum ini banyak memfokuskan aspek penulisan karangan berlandaskan sesuatu teknik, bahan bantu mengajar berasaskan teknologi dan pelbagai lagi cara lain untuk memperbaiki mutu penulisan dalam kalangan pelajar sekolah rendah mahupun sekolah menengah.

Namun begitu, permasalahan pelajar dalam aspek penulisan masih timbul walaupun pelbagai pendekatan dan strategi digunakan oleh guru di sekolah. Bagi mengisi kelompangan kajian sebelum ini, maka, makalah ini memberikan tumpuan terhadap penghasilan karangan yang menepati ciri-ciri pentaksiran yang sebenar dalam SPM yakni, menghasilkan rangka karangan sebelum proses menulis, mendapatkan idea-idea yang relevan, menggunakan penanda wacana yang sesuai untuk menunjukkan pertautan ayat yang koheren dan kohesi, tidak melakukan kesalahan bahasa seperti ejaan dan tatabahasa serta penyampaian karangan yang menarik.

Kesemua elemen ini dapat direalisasikan melalui Lembaran Kerja (LK) UMIBaKaP yang diperkenalkan sebagai satu cadangan dan alternatif kepada pelajar sebagai cara memenuhi kriteria penulisan yang cemerlang dan matang. Penyediaan pelajar dalam penulisan karangan yang berkualiti tinggi perlu diasah dari akar umbi lagi

agar dapat mempersiapkan pelajar ke arah pasaran kerjaya yang luas dalam bidang yang mementingkan aspek penulisan seperti perguruan, penerbitan, kewartanaran, penterjemahan mahupun sebagai karyawan.

Pernyataan Masalah

Dalam usaha menempuh alam pekerjaan pada masa hadapan, setiap pelajar dituntut agar mempunyai daya saing yang tinggi di pentas dunia. Sejajar dengan itu, pemerksaan aspek kemahiran menulis khususnya diberikan penekanan yang serius seperti yang termaktub dalam Dasar Pendidikan Kebangsaan. Walau bagaimanapun, kegagalan pelajar untuk mencapai gred kepujian dalam subjek Bahasa Melayu peringkat SPM masih menjadi kebimbangan pelbagai pihak (Ignacy & Subramaniam, 2024).

Laporan oleh Lembaga Peperiksaan Malaysia antara tahun 2020 hingga 2022 bahawa, permasalahan pelajar dalam penulisan karangan termasuklah dari aspek pengolahan ayat, penyampaian idea yang kurang relevan dan penguasaan bahasa yang kurang baik (Lembaga Peperiksaan Malaysia, 2020, 2021 & 2022). Selain itu, data yang dikeluarkan oleh Kementerian Pendidikan Malaysia bahawa, hampir 80,000 ribu pelajar gagal dalam subjek Bahasa Melayu turut memberikan kesan negatif terhadap pendidikan nasional. Hal tersebut dapat ditunjukkan berdasarkan Jadual .

Perubahan format KSSM Bahasa Melayu mulai tahun 2021 telah menetapkan aspek penulisan yang dikemukakan dalam

Jadual 1
Bilangan calon gagal dalam Subjek Bahasa Melayu SPM

Tahun	Jumlah Calon SPM	Peratusan Gagal	Jumlah Calon SPM Gagal
2019	388, 532	5.9%	22, 535
2020	381, 129	6.1%	23, 249
2021	372, 499	3.2%	11,920
2022	370,837	2.6%	9,642
2023	372, 257	2.5%	9,306
		Jumlah	76,652

Sumber: Lembaga Peperiksaan Malaysia, 2023-2019

Kertas 1 (Bahagian B) Bahasa Melayu SPM diperuntukkan 70 markah. Bahagian karangan ini merupakan cabaran besar kepada kebanyakan pelajar kerana perlu menghasilkan karangan dalam lingkungan 350 hingga 500 patah perkataan. Menurut laporan yang dikemukakan oleh Lembaga Peperiksaan Malaysia (LPM) pada tahun 2021 bagi mata pelajaran Bahasa Melayu SPM, secara keseluruhannya pelajar dapat menjawab tugas dengan baik dan tiada masalah besar kepada kumpulan pelajar berprestasi tinggi.

Namun begitu, laporan LPM tersebut menegaskan bahawa kumpulan pelajar berprestasi sederhana masih dapat menjawab tugas, tetapi mempunyai masalah dari aspek bahasa khususnya aspek keindahan bahasa dan ungkapan yang kurang berkesan. Kebanyakan kelompok pelajar ini sukar menyelitkan unsur keindahan bahasa seperti peribahasa akibat kurang membaca dan kurang mahir menyesuaikan ungkapan menarik mengikut konteks tajuk dan tugas karangan (Ali et al., 2021).

Kepincangan pelajar dalam aspek penulisan dapat dilihat dari tiga perspektif iaitu, bahagian isi, bahasa dan tulisan

(Abdullah et al, 2016; Raman et al, 2023). Pelbagai kelemahan pelajar masih dikenal pasti dalam penulisan karangan. Antaranya, (i) pendahuluan yang kurang menarik dan tidak menjawab kehendak soalan; (ii) idea kurang/tidak tepat; (iii) kelemahan pengolahan ayat (tiada kesinambungan ayat, tiada penggunaan penanda wacana, ketiadaan isi sampingan, tiada pertautan ayat); (iv) masalah aspek bahasa (kesalahan ejaan, tanda baca, pemilihan perkataan yang tidak tepat, ayat tidak gramatis, kesalahan tatabahasa umum (Abdullah et al., 2016; Ali et al., 2021; Ignacy & Subramaniam, 2022, 2024; Kihob & Mahali, 2020;).

Implikasinya, pelajar mengalami permasalahan seperti cara hendak memulakan proses penulisan karangan dek kekurangan pendedahan aspek penanda wacana dan sukar membuat kesinambungan ayat. Selain itu, penggunaan bahan bantu mengajar dilihat amat berkesan apabila diselarikan dalam proses PdPc guru di bilik darjah untuk membentuk situasi pembelajaran yang menarik minat dalam kalangan pelajar (Mohd Ali & Mahamod, 2019).

Guru sebagai pemudah cara hendaklah kreatif dan membangunkan bahan bantu

mengajar yang sesuai mengikut tahap pemahaman pelajar. Misalnya, penggunaan peta pemikiran *i-Think* dapat meningkatkan penguasaan penulisan esei dalam kalangan pelajar tingkatan enam (Akup & Othman, 2017). Penggunaan rangka karangan dan peta minda melalui kajian Abd. Nasir dan Abdul Halim (2023) didapati hanya efektif diguna pakai terhadap pelajar yang mahir dalam penulisan dan memiliki pengetahuan umum yang afdal.

Dalam kajian yang dijalankan oleh Che Ibrahim et al. (2021) berjudul “Persepsi Pelajar terhadap Aplikasi Multimedia Interaktif dalam Proses Pengajaran dan Pembelajaran Abad ke-21”, didapati bahawa majoriti pelajar berpendapat bahawa penggunaan bahan bantu mengajar meningkatkan pemahaman mereka terhadap topik yang disampaikan oleh guru. Dalam kajian ini pula, pengkaji mengetengahkan bahan bantu mengajar melalui Kod QR (Fail QR KFC RIMaNa PAPK) yang menyediakan koleksi ungkapan menarik untuk diakses dan disesuaikan dalam karangan mengikut kehendak tajuk dan tugas.

Untuk memudahkan pelajar menulis karangan secara terancang, Lembaran Kerja (LK) UMIBaKaP dilihat sebagai satu alternatif kepada pelajar untuk menyesuaikan bahan bantu mengajar yang berbentuk kod QR tersebut dalam menghasilkan penulisan karangan secara koheren dan kohesi. LK UMIBaKaP pula disediakan dalam bentuk jadual dengan cadangan penanda wacana yang sesuai mengikut bahagian pendahuluan, huraian isi dan penutup berpandukan kaedah baharu dalam

penulisan iaitu kaedah UMIBaKaP (Ignacy & Subramaniam, 2022; Subramaniam et al., 2023).

Pengesyoran LK UMIBaKaP dilihat sebagai salah satu usaha untuk membantu pelajar mencapai gred markah yang cemerlang (65 hingga 70 markah) dalam kertas 1 (1103/1), karangan bahagian B, yang menetapkan skema pemarkahannya seperti berikut; (i) karangan menjawab tugas; (ii) idea amatlah relevan dan mengikut kehendak tugas; (iii) huraian yang ditulis amatlah jelas dan matang selari dengan contoh yang sesuai; (iv) penggunaan bahasa yang gramatis (aspek istilah, kosa kata yang luas dan tepat, bahasa bervariasi, laras bahasa yang sesuai, ejaan dan tanda baca yang betul selain gaya bahasa yang menarik); (v) Pengolahan ayat sangat menarik dan berkesan (aspek pemerenggan, wacana lengkap, kesinambungan idea yang jelas antara perenggan, laras bahasa sesuai dan mengikut tugas).

Kaedah UMIBaKaP diperkenalkan sebagai satu teknik penulisan baharu untuk menghasilkan karangan cemerlang dan matang. Kaedah UMIBaKaP dapat dijadikan sebagai alternatif sebagai teknik baharu dalam penulisan untuk menghasilkan kualiti yang baik dalam penulisan karangan. Kaedah UMIBaKaP juga dapat melatih pelajar untuk memilih penanda wacana, frasa menarik dan menerapkan elemen KBAT untuk menghasilkan pertautan ayat yang relevan mengikut kehendak tajuk dan tugas. Hasilnya, pelajar dapat menghasilkan satu karangan yang lengkap, seimbang dan berkesan kerana hanya perlu

mengaplikasikan satu kaedah yang sama dalam keseluruhan perenggan karangan.

Objektif Kajian

Kajian ini menetapkan objektif seperti yang berikut:

- (i) menganalisis aspek kesalahan bahasa berdasarkan hasil karangan pelajar dalam praujian pelajar tingkatan empat.
- (ii) menganalisis keberkesanan LK UMIBaKaP dalam usaha meningkatkan aspek penulisan karangan bahasa Melayu pelajar tingkatan empat.

METODOLOGI

Kajian ini menggunakan reka bentuk kajian kes yang merupakan pendekatan campuran atau *mix method*. Kajian yang dijalankan mencakupi kaedah kualitatif dan kuantitatif melalui teknik analisis dokumen, temu bual dalam bentuk soal selidik berstruktur dan kajian kuasi eksperimental. Kajian ini dijalankan di Sekolah Menengah Kebangsaan Taman Seraya, Ampang, Selangor, melibatkan 65 orang pelajar tingkatan empat (berumur 16 tahun).

Sampel kajian terdiri daripada pelajar-pelajar aras sederhana, yang dipilih kerana mereka mempunyai potensi besar untuk mencapai prestasi yang baik tetapi memerlukan bimbingan untuk mengelakkan kegagalan akademik. Sampel kajian ini dipilih berlandaskan pencapaian mereka dalam ujian akhir tahun tingkatan tiga dan kedudukan kelas mengikut ketetapan pihak sekolah.

Pemilihan sampel ini didasarkan pada pemerhatian dan temu bual dengan dua orang guru subjek Bahasa Melayu. Beberapa soalan temu bual berbentuk tidak berstruktur diketengahkan kepada guru seperti latar belakang, tempoh perkhidmatan, PdP Bahasa Melayu yang memfokuskan kemahiran menulis pelajar, permasalahan yang timbul dalam kalangan pelajar dalam penulisan karangan dan strategi guru mengatasi permasalahan tersebut.

Prosedur Kajian

Pada permulaan kajian, pelajar-pelajar diminta untuk menghasilkan satu perenggan karangan (praujian) masa 25 minit sama ada menulis satu perenggan pendahuluan, huraian isi atau kesimpulan berdasarkan tajuk yang telah ditetapkan dalam. Hasil karangan pelajar dianalisis dari aspek bahasa, pemerenggan dan kohesi. Soalan praujian disusun berdasarkan spesifikasi dalam DSKP Bahasa Melayu tingkatan empat, dengan tema karangan perbincangan (respons terbuka) yang sering dikemukakan dalam peperiksaan SPM.

Berdasarkan Rajah 1, soalan yang dikemukakan adalah berdasarkan spesifikasi yang ditetapkan dalam DSKP Bahasa Melayu tingkatan empat. Karangan Bahagian B Domain Awam dan Pendidikan menjadi tema utama pembinaan item soalan tersebut. Item soalan dibina berdasarkan Buku Teks Bahasa Melayu Tingkatan Empat daripada Tema 11 iaitu Ekonomi Dinamik, Negara Berwibawa (subtajuk: Simpan, Labur dan Untung), muka surat 154 (Abdol et al., 2019). Karangan jenis perbincangan

Nama Pelajar:	Tingkatan:.....
PRAUJIAN Teliti soalan karangan di bawah, hasilkan SATU perenggan sama ada perenggan pendahuluan, perenggan isi atau perenggan kesimpulan.	
Amalan menabung dilihat sebagai sangat penting dalam menghadapi dunia yang penuh cabaran, lebih-lebih lagi dalam situasi ekonomi dunia yang tidak menentu. Oleh itu, kita boleh memulakan tabungan pada setiap bulan dan mengawal diri daripada berbelanja barangan yang tidak diperlukan seperti sering menukar telefon pintar model terkini dan membeli pakaian berjenama. Ibu bapa juga harus menjadi contoh yang baik bagi memastikan amalan tersebut berjaya dipraktikkan. Sumber dipetik dan diubah suai daripada: <i>Portal Kosmo.com.my</i>	
Berdasarkan pernyataan di atas, amalan menabung perlu diterapkan dalam diri setiap individu. Huraikan pendapat anda, langkah-langkah memupuk amalan menabung dalam diri setiap individu.	

Rajah 1. Set soalan praujian

(respons terbuka) menjadi tumpuan perdana dalam kajian ini memandangkan soalan bentuk ini amat popular dikemukakan dalam peperiksaan SPM.

Setiap pelajar dilabelkan sebagai P1 hingga P65 dan dianalisis secara deskriptif berdasarkan setiap perenggan yang dihasilkan sama ada memenuhi lapan kriteria yang ditetapkan atau sebaliknya. Langkah berikutnya, guru mengendalikan proses PdP bersama pelajar-pelajar. Proses ini mengambil masa dua jam untuk pelajar-pelajar mengikuti sesi kajian dalam bahagian ini. Pelajar-pelajar diberikan pendedahan terlebih dahulu berhubung kaedah penulisan yang baharu.

Dalam sesi kajian yang sebenar, pelajar sekali lagi diulang dan diuji berhubung kaedah baharu dalam penulisan iaitu kaedah UMIBaKaP, bahan bantu mengajar (mengandungi koleksi ungkapan menarik

dalam bentuk Kod QR) dan panduan penulisan secara koheren menggunakan Lembaran Kerja (LK) UMIBaKaP. Sebagai alternatif, guru menyediakan ‘worksheets’ yang mengandungi ungkapan menarik mengikut tugas karangan untuk memudahkan pelajar mendapatkan koleksi ungkapan menarik seperti peribahasa, kata-kata mutiara dan pendapat tokoh. Kesemua elemen ini dilakukan dalam bentuk kumpulan dan berpusatkan pelajar.

Pelajar dibahagikan kepada 11 kumpulan, setiap kumpulan terdiri daripada 5 hingga 6 orang, dan mereka diminta untuk menghasilkan satu perenggan karangan (sama ada pendahuluan, huraian isi, atau kesimpulan) mengikut jadual LK UMIBaKaP yang disediakan berlandaskan satu tajuk karangan yang sama seperti dalam aktiviti praujian. Jadual ini mengandungi penanda wacana yang sesuai untuk setiap

perenggan. Contoh jadual LK UMIBaKaP bersaiz A3 diberikan sebagai panduan. Pelajar perlu membuat draf terlebih dahulu (Jadual 1) sebelum ditransformasikan dalam bentuk perenggan seperti yang disediakan dalam Jadual 2 dan Jadual 3.

Setiap kumpulan membentangkan dan membacakan hasil karangan mereka melalui aktiviti PAK21, iaitu *Gallery Walk*. Pada akhir sesi PdP, guru memberikan refleksi terhadap hasil kerja pelajar, meneliti kelemahan dan kelebihan setiap perenggan

yang dihasilkan. Langkah terakhir dalam kajian ini ialah pascaujian. Pelajar diberikan tajuk karangan yang berbeza dan diminta menghasilkan satu perenggan karangan menggunakan kaedah UMIBaKaP dan berpandukan LK UMIBaKaP.

Hasil karangan dianalisis mengikut lapan kriteria: (i) kesesuaian penggunaan penanda wacana, (ii) frasa menarik dalam ayat, (iii) pertautan ayat, (iv) bahasa bervariasi, (v) ayat gramatis, (vi) aspek ejaan, (vii) tatabahasa, dan (viii) tanda

Jadual 2
Contoh LK UMIBaKaP

Kaedah	Penanda Wacana	Rangka Karangan
U (Ungkapan Menarik)	Kata-kata terkenal tokoh dunia, yakni ada mengatakan bahawa, <i>atau</i> Peribahasa Melayu ada mengatakan bahawa,	Pelajar mengisi bahagian ini mengikut topik atau tajuk karangan jenis perbincangan yang diterima.
M (Mengapa)	Bait-bait ucapan tokoh tersebut sengaja dipetik kerana, <i>atau</i> Bait-bait ungkapan mutiara itu sengaja dipetik kerana,	
I (Isu/Isi)	Maka, jelaslah bahawa,	
Ba (Bagaimana)	Dalam konteks ini,	
Ka (Kesan Apa)	Implikasinya,	
P (Penegasan)	Persoalannya sekarang, apakah?	

Jadual 3
Contoh LK UMIBaKaP (draf penuh)

Kaedah	Penanda Wacana	Rangka Karangan
U (Ungkapan Menarik)	Pelajar mengisi semula dalam jadual baharu yang disediakan dengan mencontohi penanda wacana yang disediakan.	Rangka karangan ditulis oleh pelajar setelah dilakukan perbincangan bersama ahli kumpulan
M (Mengapa)		
I (Isu/Isi)		
Ba (Bagaimana)		
Ka (Kesan Apa)		
P (Penegasan)		

baca. Set soalan pascaujian juga dibina berdasarkan Buku Teks Bahasa Melayu Tingkatan Empat dari Tema 2, “Insan Terdidik, Negara Sejahtera” (subtajuk: Malaysia Membaca).

Setiap pelajar dikehendaki menghasilkan satu perenggan karangan yang dipilih dengan mencontohi LK UMIBaKaP. Langkah ini membolehkan pelajar mengikuti kaedah penulisan baharu langkah demi langkah, memastikan mereka mendapat pendedahan yang mencukupi untuk meningkatkan kemahiran penulisan mereka. Berikut pula diberikan contoh set soalan karangan respons terbuka yang dapat dilihat dalam Rajah 2.

Berikut dipaparkan metodologi kajian dalam bentuk carta alir yang menggambarkan langkah-langkah yang diambil dalam kajian mengikut Rajah 3.

MODEL TAUTAN PINDAAN (2002)

Penghubung ayat juga dikenali sebagai penanda wacana atau *discourse markers*. Karim et. al (2009) pula melihat koheisi sebagai penanda wacana yang dapat dibahagikan kepada lima aspek iaitu,

penghubung, rujukan, penggantian, leksikal, elipsis atau pengguguran. Menurut Choemue & Bram (2021), penanda wacana atau tautan penghubung ayat merupakan peristilahan linguistik yang bertujuan untuk membina ayat yang koheren dan koheisi baik antara ayat dalam sesuatu perenggan mahupun antara perenggan dengan perenggan yang lain.

Lazimnya, tanda koma digunakan selepas menggunakan frasa pada pangkal ayat yang berfungsi sebagai penanda wacana seperti *selain itu, di samping itu, lebih-lebih lagi, malah* dan banyak lagi. Penggunaan penanda wacana menjadi penting sebagai penghubung ayat baharu yang ditulis dengan ayat sebelumnya. Hal ini juga penting untuk memahami konstituen ayat secara relevan dalam penulisan karangan yang sesuai.

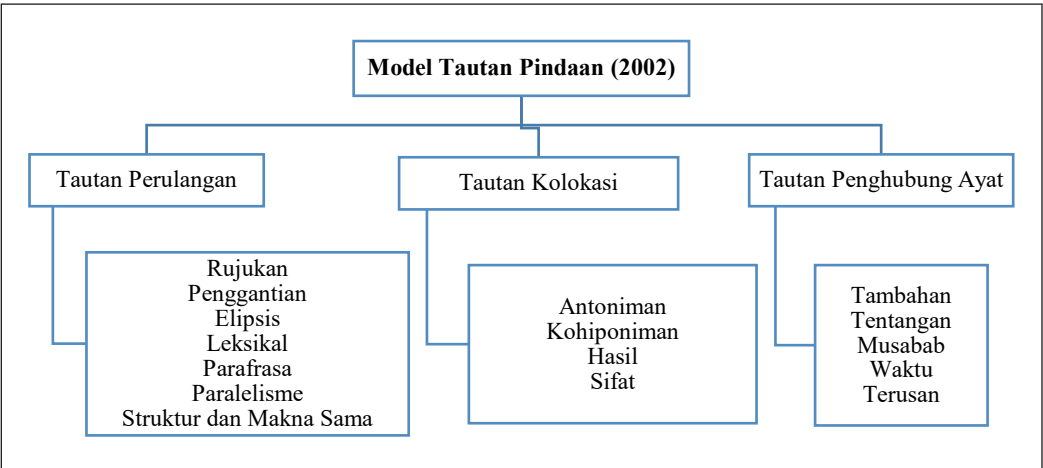
Berlandaskan Model Tautan Pindaan seperti yang diusulkan oleh Md.Nasir (2002), aspek koheisi ini merangkumi tiga elemen yang utama yakni, tautan perulangan, tautan kolokasi dan tautan penghubung ayat. Hal ini dapat dilihat berdasarkan Rajah 4.

Nama Pelajar:	Tingkatan:
PASCAUJIAN	
Teliti soalan karangan di bawah, hasilkan SATU perenggan sama ada perenggan pendahuluan, perenggan isi atau perenggan kesimpulan. Gunakan Kaedah UMIBaKaP.	
Sesiapapun tidak menafikan budaya membaca kunci kecemerlangan dan mampu mengubah corak kehidupan seseorang. Apatah lagi, melalui pembacaanlah ilmu ditimba khususnya, insan bergelar pelajar. Dalam mendepani cabaran kecanggihan teknologi, budaya membaca seharusnya terus disemai kepada pelbagai lapisan usia. Pengarah program Ilmu Tautan Kaish, Behoney Low Lee Tong berkata, sebanyak 2,927 buku kanak-kanak pelbagai Bahasa telah disumbangkan oleh Perpustakaan Negara kepada perpustakaan awam dan beberapa buah sekolah.	
Sebagai respons terhadap kandungan petikan akhbar di atas, aktiviti membaca seharusnya menjadi amalan masyarakat kerana bangsa membaca bangsa yang berjaya. Jelaskan kepentingan amalan membaca kepada masyarakat.	

Rajah 2. Set soalan pascaujian (Sumber: Hasil kerja pengkaji)



Rajah 3. Carta alir prosedur kajian



Rajah 4. Model Tautan Pindaan, 2002 (Sumber: Sanat Md. Nasir, 2002)

Berdasarkan Rajah 4, tautan penghubung ayat yang mementingkan jalinan idea sebelum dan selepasnya secara berkesan melalui penggunaan penanda wacana yang penting untuk meningkatkan pemahaman pembaca. Kajian ini memfokuskan aspek tautan penghubung ayat (Md. Nasir, 2002) yang mencirikan ayat penghubung tambahan, tentangan, musabab, waktu dan terusan terhadap 65 sampel karangan pelajar.

Selain itu, beberapa cadangan baharu penggunaan penanda wacana menerusi kaedah UMIBaKaP dalam penulisan karangan. Untuk melaksanakan kaedah tersebut, Lembaran Kerja (LK) UMIBaKaP diperkenalkan untuk membantu pelajar menghasilkan perenggan karangan yang memenuhi ciri-ciri seperti penggunaan penanda wacana yang sesuai, penggunaan frasa menarik, tanda baca, pertautan ayat ditulis dengan baik, bahasa bervariasi dan ayat gramatis. Seandainya pelajar mengabaikan ciri-ciri penulisan ini, prestasi pelajar pasti boleh terjejas dan markah penulisan seseorang pelajar dalam subjek Bahasa Melayu hanyalah berada pada kategori memuaskan atau ke bawah.

Kaedah UMIBaKaP dan LK UMIBaKaP

Kaedah UMIBaKaP (Ignacy, 2021) merupakan idea baharu dalam penulisan karangan yang diperkenalkan untuk membantu meningkatkan prestasi pelajar khususnya dalam karangan Bahagian B (Respons Terbuka) Kertas 1, Bahasa Melayu (1103/01) Sijil Pelajaran Malaysia (SPM). Kaedah ini dimulakan dengan ungkapan

menarik (U) seperti peribahasa dan pendapat tokoh, kemudian diteruskan dengan ayat huraian (mengapa-M), ayat isu atau isi (I), diteruskan dengan ayat contoh (bagaimana-Ba), ayat kesan sama ada kesan baik atau kesan buruk (Kesan apa- Ka) dan disudahi dengan ayat penegasan atau penutup (P).

Jadual LK UMIBaKaP disediakan untuk pelajar agar dapat mencontohi dan menyesuaikan penanda wacana mengikut perenggan dalam karangan yang mencakupi perenggan pendahuluan, isi dan kesimpulan. Setiap ayat yang dibina dalam sesuatu perenggan memerlukan pertautan yang sesuai dan berkesan. Oleh itu, jadual LK UMIBaKaP dihasilkan untuk membimbing pelajar menulis karangan berpandukan penanda wacana yang disyorkan. Berikut ditunjukkan contoh Jadual LK UMIBaKaP yang mengandungi sebahagian penanda wacana yang dicadangkan untuk membina perenggan pendahuluan, isi dan penutup seperti yang dapat dilihat dalam Jadual 4, 5 dan 6.

Berdasarkan Jadual 4, 5 dan 6, LK UMIBaKaP dibentuk untuk memudahkan pelajar menulis karangan berpandukan koleksi penanda wacana yang dicadangkan. Ketiga-tiga jadual LK UMIBaKaP tersebut menawarkan penanda wacana yang mempunyai unsur gaya bahasa yang menarik, bervariasi dan gramatis. Setiap baris ayat mempunyai pertautan antara satu sama lain selain membina ayat yang jelas dan menyeluruh terhadap soalan karangan yang dikemukakan.

LK UMIBaKaP dihasilkan sebagai satu proses untuk membantu pelajar

menghasilkan pertautan ayat mengikut kaedah UMIBaKaP. Proses pertautan ini tidak sekadar memberikan jadual sahaja, sebaliknya pelajar-pelajar akan diberikan pilihan penanda wacana yang sesuai di samping penggunaan bahasa bervariasi dan frasa menarik untuk dipilih dan disesuaikan oleh pelajar. Setiap frasa

Jadual 4
LK UMIBaKaP untuk membina perenggan pendahuluan

Kaedah	Penanda Wacana	Rangka Karangan
U (Ungkapan Menarik)	Kata-kata terkenal tokoh dunia, yakni ada mengatakan bahawa, <i>atau</i>	Bahagian ini memerlukan setiap pelajar dalam kumpulan menghasilkan perenggan pendahuluan berdasarkan panduan kaedah UMIBaKaP dan mencontohi penanda wacana yang disertakan.
M (Mengapa)	Peribahasa Melayu ada mengatakan bahawa, Bait-bait ucapan tokoh tersebut sengaja dipetik kerana, <i>atau</i>	
I (Isu/Isi)	Bait-bait ungkapan mutiara itu sengaja dipetik kerana, Maka, jelaslah bahawa,	
Ba (Bagaimana)	Dalam konteks ini,	
Ka (Kesan Apa)	Implikasinya,	
P (Penegasan)	Persoalannya sekarang, apakah?	

Jadual 5
LK UMIBaKaP untuk membina perenggan isi

Teknik	Penanda Wacana	Rangka Karangan
U (Ungkapan Menarik)	Aforisme Melayu ada mengatakan bahawa, <i>atau</i>	Pelajar menggunakan contoh koleksi penanda wacana mengikut setiap perenggan yang mempunyai variasi bahasa.
M (Mengapa)	Memetik pandangan <i>siapa</i> ada mengungkapkan kata-katanya bahawa, Ungkapan mutiara tersebut menzahirkan makna yang cukup jelas bahawa, <i>atau</i>	
I (Isu/Isi)	Kata orang tua- tua tersebut menzahirkan makna yang cukup jelas bahawa, Oleh itu,	
Ba (Bagaimana)	Contoh ketara yang boleh diketengahkan ialah,	
Ka (Kesan Apa)	Kesan positif/negatif yang dapat dilihat ialah,	
P (Penegasan)	Tuntasnya,	Pihak(<i>siapa</i>)...hendaklah melaksanakan suatu pelan tindakan secara bersungguh-sungguh untuk ... <i>ayat tugas</i> / <i>kaitan dengan tajuk</i> dan tidak seperti melepaskan batuk di tangga.

Jadual 6
LK UMIBaKaP untuk membina perenggan kesimpulan

Teknik	Penanda Wacana	Rangka Karangan
U (Ungkapan Menarik)	Sebagai penutup bicara, ... <i>siapa</i> pernah bermadah bahawa, <i>atau</i> Sebagai penutup bicara, sungguh benarlah pepatah Melayu yang berbunyi, ...	Bahagian kesimpulan turut menggunakan kaedah UMIBaKaP yang disertakan contoh penanda wacana mengikut kesesuaian.
M (Mengapa)	Sesungguhnya,	
I (Idea)	Dalam hal ini,	
Ba (Bagaimana)	Secara analoginya,	
Ka (Kesan Apa)	Kesannya,	
P (Penegasan)	Bulan kian terang, bayang kian jelas maka,	

yang disediakan mengikut kesesuaian perenggan pendahuluan, isi dan kesimpulan. Pelajar juga diberikan pelbagai ayat yang bervariasi agar pelajar boleh memilih dan menyesuaikannya dalam penulisan.

Hal ini secara tidak langsung membina kreativiti pelajar, berfikir secara kritis dan kreatif dan menggarap elemen KBAT dalam penulisan karangan. Hasilnya, karangan yang dihasilkan mengikut ketetapan skema pemarkahan menepati kehendak pemeriksa dan mencapai gred yang cemerlang. Jika menelusuri peraturan pemarkahan tahap SPM, pelajar dikehendaki menjawab tugas dengan betul.

Selain itu, idea, huraian dan contoh yang digunakan hendaklah relevan, jelas dan matang. Bahasa yang digunakan pula hendaklah gramatis. Hal ini bermakna, pelajar perlu memberikan penekanan terhadap aspek perkataan, ejaan, tanda baca dan gaya bahasa menarik. Pengolahan ayat pula hendaklah sangat menarik dan berkesan. Aspek pemerenggan, wacana

dan pertautan ayat jelas antara perenggan dengan laras bahasa yang sesuai mengikut tugas.

LK UMIBaKaP disediakan memenuhi kriteria yang ditetapkan seperti di atas dengan pilihan bahasa yang bervariasi, penggunaan penanda wacana yang sesuai dalam setiap bahagian ayat, frasa menarik. Pelajar hanya perlu menyambung pengolahan ayat mengikut kehendak tugas. Dalam hal ini, guru perlu memastikan hasil jawapan pelajar menepati dan ayat yang dibina hendaklah mengikut hukum tatabahasa yang betul.

DAPATAN KAJIAN DAN PERBINCANGAN

Dapatan kajian dianalisis berdasarkan dua bahagian (i) menganalisis permasalahan pelajar dari aspek bahasa, pemerenggan dan kohesi. Data kajian dianalisis menggunakan aktiviti praujian pelajar. (ii) menilai keberkesanan penggunaan LK UMIBaKaP dari aspek pemerenggan yang mencakupi lapan elemen yang ditetapkan

iaitu, kesesuaian penggunaan penanda wacana, frasa menarik dalam ayat, pertautan ayat, bahasa bervariasi, ayat gramatis, aspek ejaan, tatabahasa dan tanda baca.

Data kajian dianalisis menggunakan aktiviti praujian pelajar. Seramai 65 pelajar yang terlibat sebagai sampel kajian didapati mengalami pelbagai permasalahan dalam penulisan karangan. Antaranya, tidak menggunakan penanda wacana yang sesuai untuk melakukan pertautan ayat, kesalahan bahasa termasuk ejaan dan tanda baca, kesalahan tatabahasa, tiada penggunaan frasa menarik dalam ayat dan kurangnya bahasa bervariasi. Berikut pula ditunjukkan rubrik praujian dan pascaujian

yang digunakan untuk mendapatkan data mengikut Jadual 7 dan 8 yang berikut.

Berdasarkan rubrik pemarkahan tersebut, pengkaji telah membuat ketetapan penskoran seperti dalam Jadual 8.

Sejajar dengan rubrik tersebut, kesemua kesalahan bahasa dalam sampel karangan pelajar dianalisis secara deskriptif. Berdasarkan 65 sampel karangan, berikut pula ditunjukkan Jadual 9 yang mengandungi analisis kesalahan bahasa yang dilakukan oleh pelajar.

Seramai 24 peserta kajian mendapat gred lemah, diikuti 32 peserta kajian dengan keputusan gred memuaskan. Manakala, bagi gred baik pula diperoleh lapan peserta

Jadual 7
Rubrik praujian dan pascaujian

Peserta Kajian	K1	K2	K3	K4	K5	K6	K7	K8
Kriteria Penilaian	Kesesuaian penggunaan penanda wacana	Frasa menarik dalam ayat	Pertautan ayat	Bahasa bervariasi	Ayat gramatis	Aspek ejaan	Kesalahan tatabahasa	Tanda baca
P1 hingga P65	SKOR							
Pilih skor yang ditetapkan								
Skor	1	2	3	4	5	Skor yang dipilih hendaklah berdasarkan 8 kriteria yang telah ditetapkan.		
Tahap	Lemah	Memuaskan	Baik	Kepujian	Cemerlang			

Jadual 8
Perincian penskoran

Skor	Gred	Perincian
1	Lemah	7 hingga 8 kesalahan
2	Memuaskan	5 hingga 6 kesalahan
3	Baik	3 hingga 4 kesalahan
4	Kepujian	1 hingga 2 kesalahan
5	Cemerlang	Tiada kesalahan

Jadual 9
Analisis kesalahan bahasa dalam karangan

Peserta Kajian	K1	K2	K3	K4	K5	K6	K7	K8	Jumlah Kesalahan	Skor
P1	✓	✓	✓	✓	✓	✓	✓	✓	8	1
P2	✓	✓	✓	✓			✓		6	2
P3	✓	✓	✓	✓	✓				5	2
P4	✓	✓	✓	✓	✓		✓	✓	7	1
P5	✓	✓	✓	✓	✓				5	2
P6		✓	✓						2	4
P7	✓	✓	✓	✓	✓	✓			6	2
P8	✓	✓	✓	✓	✓		✓		6	2
P9	✓	✓	✓	✓	✓	✓	✓		7	1
P10		✓	✓		✓	✓			4	3
P11	✓	✓	✓	✓			✓		5	2
P12	✓	✓	✓	✓	✓	✓			6	2
P13	✓	✓	✓		✓	✓	✓		6	2
P14			✓	✓			✓		3	3
P15	✓	✓	✓		✓	✓			6	2
P16	✓	✓	✓		✓	✓	✓		6	2
P17	✓	✓	✓		✓	✓	✓	✓	7	1
P18	✓	✓	✓	✓	✓	✓			7	1
P19	✓	✓	✓	✓	✓	✓	✓		7	1
P20	✓	✓	✓	✓	✓	✓			7	1
P21	✓	✓	✓	✓	✓	✓	✓	✓	8	1
P22	✓	✓	✓	✓	✓	✓			6	2
P23	✓	✓	✓	✓	✓	✓	✓		7	1
P24	✓	✓	✓	✓	✓	✓			6	2
P25		✓	✓	✓	✓	✓	✓		6	2
P26	✓	✓	✓			✓	✓		5	2
P27			✓			✓			3	3
P28	✓	✓	✓	✓	✓	✓			7	1
P29		✓	✓	✓		✓	✓		5	2
P30	✓	✓	✓	✓	✓				5	2
P31	✓	✓	✓	✓	✓	✓			6	2
P32	✓	✓	✓	✓	✓	✓	✓	✓	8	1
P33	✓	✓	✓	✓	✓				5	2
P34	✓	✓	✓	✓	✓		✓		6	2
P35	✓	✓	✓	✓	✓		✓		6	2
P36	✓	✓	✓	✓	✓				6	2
P37	✓	✓	✓	✓	✓	✓	✓		7	1
P38	✓	✓	✓	✓	✓		✓	✓	7	1

Jadual 9 (sambungan)

Peserta Kajian	K1	K2	K3	K4	K5	K6	K7	K8	Jumlah Kesalahan	Skor
P39	✓	✓	✓	✓	✓	✓	✓		7	1
P40	✓	✓	✓	✓		✓	✓		6	2
P41		✓	✓	✓					4	3
P42		✓	✓	✓	✓	✓	✓	✓	7	1
P43	✓	✓	✓	✓	✓	✓			6	2
P44		✓	✓	✓	✓	✓			5	2
P46	✓	✓	✓	✓	✓	✓			6	2
P47	✓		✓	✓	✓	✓	✓	✓	7	1
P48			✓	✓	✓	✓			4	3
P49	✓	✓	✓	✓	✓	✓			6	2
P50	✓	✓	✓	✓		✓			5	2
P51	✓	✓	✓	✓	✓	✓	✓	✓	8	1
P52	✓	✓	✓	✓					4	3
P53	✓	✓	✓	✓	✓		✓		6	2
P54	✓		✓	✓	✓				4	3
P55			✓	✓			✓	✓	4	3
P56	✓	✓	✓	✓	✓	✓			7	1
P57	✓	✓	✓	✓	✓	✓	✓		7	1
P58	✓	✓	✓	✓	✓	✓			7	1
P59	✓	✓	✓	✓	✓	✓	✓		7	1
P60	✓	✓	✓	✓	✓	✓	✓		7	1
P61	✓	✓	✓	✓				✓	6	2
P62	✓	✓	✓	✓			✓		5	2
P63	✓	✓	✓	✓	✓		✓		6	2
P64	✓	✓	✓	✓	✓				5	2
P65	✓	✓	✓	✓	✓	✓	✓	✓	8	1
Jumlah	54	59	65	57	51	43	44	12		

kajian dan seorang mendapat gred kepujian. Terdapat lapan kriteria dilihat dalam sesebuah perenggan seperti yang dihasilkan oleh pelajar dalam praujian.

Antara kriteria kesalahan yang dilihat ialah, ketidaksesuaian penggunaan penanda wacana (K1), tiada penggunaan frasa menarik dalam ayat (K2), tiada pertautan ayat (K3), kurangnya bahasa bervariasi (K4),

ayat kurang gramatis (K5), kesalahan aspek ejaan (K6), kesalahan aspek tatabahasa (K7) dan kesalahan tanda baca (K8).

Kesemua aspek kesalahan ini dilihat dengan cara analisis dokumen (sampel karangan praujian) yang ditulis oleh 65 orang pelajar dan dianalisis kesalahan bahasa mengikut Tatabahasa Dewan Edisi Ketiga terbitan Dewan Bahasa dan Pustaka.

Daripada lapan kriteria yang dilihat, hampir tujuh kriteria yang merangkumi kesalahan K1, K2, K3, K4, K5, K6 dan K7 didapati paling ketara dilakukan oleh 65 peserta kajian.

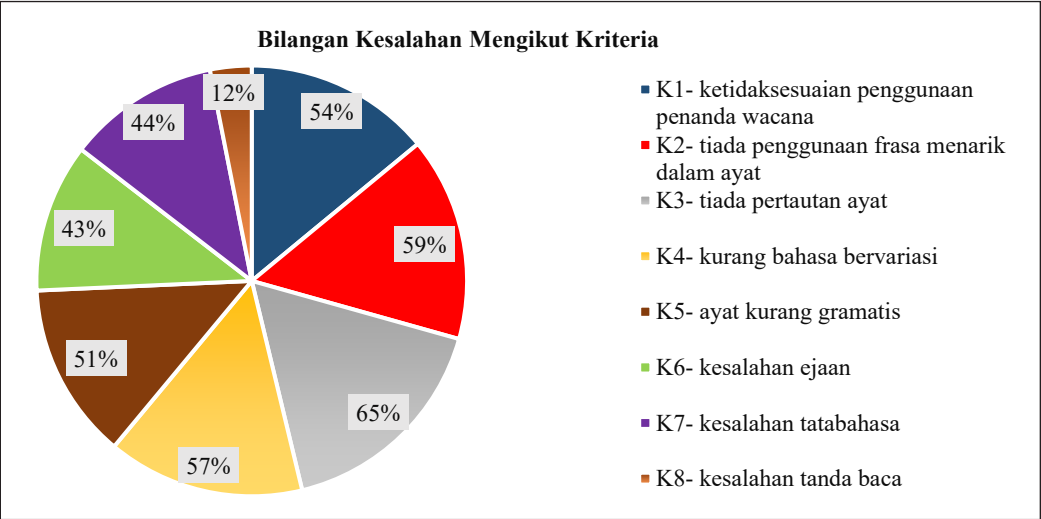
Ringkasnya, keseluruhan kesalahan bahasa yang dilakukan peserta kajian dapat ditunjukkan mengikut graf dalam Rajah 5.

Mengikut Jadual 7 dan Rajah 6, kebanyakan peserta kajian didapati melakukan kesalahan bahasa dalam karangan seperti penggunaan penanda wacana yang salah, kurang menggunakan pertautan ayat, tiada penggunaan frasa menarik, bahasa kurang bervariasi, ayat kurang gramatis dan kesalahan tatabahasa termasuk kesalahan ejaan. Manakala, kesalahan K8 (tanda baca) agak kurang dilakukan oleh pelajar memandangkan kesemua peserta kajian merupakan pelajar tingkatan empat yang dianggap sudah tahu dan memahami penggunaan tanda baca yang betul mengikut laras bahasa.

Kesalahan aspek tanda baca yang lazim dilakukan oleh pelajar misalnya, kesalahan tanda nokhtah, tanda koma, tanda pembuka dan pengikat kata, serta tanda tanya. Hal ini bermakna, peserta kajian ini didapati masih sedar dan tahu penggunaan tanda baca dengan betul. Daripada 65 peserta kajian, hanya 12 peserta sahaja didapati melakukan kesalahan tanda baca seperti penggunaan huruf besar, tanda sempang dan tanda koma. Walau bagaimanapun, kesalahan tanda baca masih perlu dititikberatkan oleh pelajar agar tidak menjejaskan markah bahasa secara keseluruhannya.

Kesalahan Penggunaan Penanda Wacana

Menurut Nik Safish Karim et al (2008), dalam kemahiran menulis bahasa Melayu, penanda wacana berfungsi sebagai penghubung antara ayat dengan perenggan. Penanda wacana sangat penting dalam mengekalkan kesinambungan dan kemaslahatan dalam



Rajah 5. Analisis keseluruhan kesalahan pelajar dalam karangan mengikut kriteria

penulisan atau pertuturan. Selain itu, penggunaan penanda wacana membantu dalam membentuk hubungan yang padu antara perenggan (Md. Nasir, 2002).

Beberapa kesalahan daripada sampel karangan dapat dilihat secara rinci dalam makalah ini. Antaranya, kesalahan penggunaan penanda wacana. Berikut pula sampel karangan yang ditulis oleh pelajar P2 yang mengandungi kesalahan penanda wacana, ‘hal ini dikatakan kerana.’

Tambahan lagi, ibu bapa juga memainkan peranan yang penting untuk memupuk amalan menabung dalam diri setiap individu. Ibu bapa memainkan peranan untuk menjadi contoh atau teladan yang baik kepada anak-anak. Hal ini dikatakan kerana, anak-anak banyak menghabiskan masa bersama ibu bapa. Dengan ini, ibu bapa boleh mendidik anak mereka menabung dari kecil. Bak kata pepatah melentur buluh biarlah dari rebungunya

Penanda wacana tambahan yang digunakan dalam sampel karangan P2 di bawah jelas dilihat iaitu, kesalahan penggunaan penanda wacana ‘hal ini dikatakan kerana.’ Sebaik-baiknya, penanda wacana tersebut dapat dibetulkan sebagai ‘hal ini dikatakan demikian kerana.’ Mengikut sumber daripada Pusat Rujukan Persuratan Melayu (PRPM) perkataan ‘kerana’ merupakan kata keterangan yang membawa fungsi sebagai penghubung klausa yang menerangkan klausa utama. Sesuatu klausa pula hendaklah terdiri daripada subjek dan predikat.

Maka, frasa ‘hal ini’ tidak dapat diterima sebagai klausa, sebaliknya ditambah dengan perkataan ‘demikian’ untuk membentuk klausa ‘hal ini demikian.’ Apabila dianalisis secara rinci, klausa ‘hal ini’ membentuk subjektif, manakala klausa ‘demikian’ membentuk predikat. Sehubungan itu, penggunaan penanda wacana ‘hal ini kerana’ dianggap tidak lengkap.

Oleh itu, pelajar seharusnya ditegur oleh guru agar menggunakan penanda wacana ‘hal ini demikian kerana atau hal ini dikatakan demikian kerana.’ Kesilapan ini tidak harus dianggap remeh sebaliknya, pelajar perlu menggunakan frasa yang betul kerana mempunyai hukum tatabahasa dalam bahasa Melayu yang harus dipatuhi.

Selain itu, P2 ini juga didapati melakukan kesalahan ayat seperti yang boleh dibaca, ‘Dengan ini, ibu bapa boleh mendidik anak mereka menabung dari kecil. Bak kata pepatah melentur buluh biarlah dari rebungunya.’ Ayat tersebut tidak perlu dipisahkan memandangkan penggunaan ayat peribahasa ini boleh digabungkan dengan ayat sebelumnya. Ayat peribahasa tersebut seandainya dipisahkan menampakkan kesalahan sebagai ayat tergantung. Sebaik-baiknya, ayat tersebut ditulis bercantum, iaitu ‘Dengan ini, ibu bapa boleh mendidik anak mereka menabung dari kecil bak kata pepatah melentur buluh biarlah dari rebungunya.’

Terdapat juga kesalahan penggunaan penanda wacana yang agak lewih dilakukan oleh kebanyakan peserta kajian. Contohnya, penggunaan frasa ‘terdapat banyak langkah-langkah, antara

langkah-langkah, terdapat beberapa langkah-langkah.’ Frasa seumpama ini juga merupakan kesalahan tatabahasa. Penggunaan penanda wacana permulaan isi ini sepatutnya dibetulkan menjadi ‘*terdapat banyak langkah, antara langkah, terdapat beberapa langkah.*’

Namun begitu, pelajar kategori aras sederhana ini masih tetap melakukan kesalahan bahasa atau penggunaan penanda wacana yang salah. Contoh penanda wacana lain yang digunakan dalam bahagian pendahuluan seperti, ‘*pada era globalisasi, pada masa moden, dan dalam dunia dilingkari*’ didapati tidak lengkap. Begitu juga penggunaan penanda wacana tambahan seperti, ‘*selain daripada itu, disamping itu, oleh demikian, justeru itu,*’ masih ketara ditemukan dalam beberapa sampel karangan pelajar yang dikaji. Hal tersebut dapat dilihat secara ringkasnya melalui Jadual 10 yang berikut.

Oleh itu, pelajar seharusnya ditegur oleh guru agar menggunakan penanda wacana ‘*hal ini demikian kerana* atau *hal ini dikatakan demikian kerana.*’ Kesilapan ini tidak harus dianggap remeh sebaliknya, pelajar perlu menggunakan frasa yang betul kerana mempunyai hukum tatabahasa dalam bahasa Melayu yang harus dipatuhi.

Berdasarkan rujukan Model Pertautan Pindaan (2002), aspek tautan penghubung ayat yang mencirikan ayat penghubung tambahan, tentangan, musabab, waktu dan terusan wajar diketengahkan dan diberikan pilihan kepada pelajar agar pelajar tahu dan faham penggunaan penanda wacana yang betul dan relevan mengikut konteks ayat dalam karangan.

Kesalahan Pertautan Ayat

Selain itu, kebanyakan peserta kajian juga tidak dapat menggunakan pertautan ayat dengan baik. Kebanyakan perenggan

Jadual 10
Kesalahan penanda wacana

Peserta Kajian	Kesalahan	Pembetulan
P3, P5, P21, P24, P22, P25, P35, P46, P56, P62, P65	Selain daripada itu,	Selain itu,
P8, P9, P10, P16, P24, P44 P25, P43, P63	Disamping itu, Oleh demikian,	Di samping itu, Oleh yang demikian,
P11, P18, P21, P24, P35, P36, P44, P47, P53, P58	Justeru itu,	Justeru,
P2, P4, P10, P11, P13, P19, P20, P23, P24, P32, P36, P44, P45, P47, P51, P52, P54, P58, P61, P62, P63, P65	Hal ini kerana	Hal ini demikian kerana, hal ini dikatakan demikian kerana
P4, P7, P13, P19, P23	Pada era globasisasi, Pada globalisasi ini,	Pada era globalisasi ini,
P36, P39, P42, P55 P33, P52	Pada masa moden Dalam dunia dilingkari	Pada zaman serba moden ini, Dalam dunia dilingkari kemajuan sains dan teknologi ini,

yang dihasilkan pula hanya mengandungi beberapa elemen dalam karangan peserta kajian. Contohnya ayat isi, ayat huraian dan ayat contoh. Namun begitu, sebagai pelajar yang bakal menghadapi peperiksaan SPM seharusnya dapat menulis satu perenggan dengan wacana yang lengkap sekurang-kurangnya mempunyai rangkuman ayat isi, ayat huraian, ayat contoh, ayat kesan, ungkapan menarik dan disudahi ayat penegasan. Walau bagaimanapun, sampel karangan P15 pula menunjukkan, peserta kajian ini mengabaikan beberapa elemen tersebut sehingga menyebabkan perenggan karangan yang dihasilkan tidak menunjukkan ciri-ciri karangan yang cemerlang.

Pada era globalisasi ini, sikap memupuk amalan menabung ini amat penting pada diri seseorang. Hal ini kerana amalan menabung dapat membantu individu dalam segi kewangan untuk menyambung pembelajaran, membeli barang keperluan dan macam-macam lagi.

Apabila melihat hasil jawapan karangan yang dihasilkan oleh P15, pelajar ini menghasilkan satu perenggan pendahuluan yang kurang memberangsangkan. Hal ini dikatakan demikian kerana, P15 didapati menghasilkan perenggan pendahuluan yang ringkas dan tidak menyeluruh. Selain itu, ayat kedua yang dihasilkan pula menyentuh bahagian isi. Seharusnya, P15 menyedari ciri-ciri menulis pendahuluan yang baik. Perkara seterusnya, P15 juga tidak menulis ayat penegasan yang sepatutnya

mengandungi ayat tugas iaitu langkah-langkah memupuk amalan menabung.

Berdasarkan Model Tautan Pindaan (2002), P15 hanya menggunakan tautan penghubung waktu (pada era globalisasi ini) dan tambahan (hal ini kerana). Hasilnya, dua ayat sahaja dibina dan tidak menggambarkan tajuk karangan secara holistik. Penggunaan penanda wacana '*hal ini kerana*' juga didapati tidak menepati hukum tatabahasa. Selain itu, P15 juga tidak menunjukkan variasi bahasa atau penggunaan ungkapan menarik seperti peribahasa atau pendapat tokoh yang boleh dikaitkan dengan tajuk. Keseluruhannya, perenggan pendahuluan ini tidak menarik dan kurang memuaskan.

Kesalahan Ejaan dan Tatabahasa

Kesalahan ejaan dan tatabahasa juga banyak didapati dalam sampel karangan pelajar berdasarkan praujian ini. Antara kesalahan ejaan dan tatabahasa yang dikenal pasti dapat ditunjukkan dalam Jadual 11.

Kesemua kesalahan ejaan, tatabahasa mahupun tanda baca yang dilakukan oleh pelajar boleh menjejaskan markah bahasa secara keseluruhannya. Hal ini pastinya akan mengakibatkan markah karangan pelajar merosot dan prestasi pelajar dalam subjek Bahasa Melayu mengalami penurunan.

Berdasarkan praujian yang dilakukan, maka dapatlah disimpulkan bahawa kebanyakan pelajar didapati masih mengalami permasalahan dari aspek bahasa, pemerenggan dan kohesi. Dapatan kajian menunjukkan rata-rata pelajar mencapai tahap lemah, memuaskan dan baik bagi kriteria 1 (penggunaan penanda wacana),

Jadual 11
Kesalahan ejaan dan tatabahasa

Kesalahan	Jenis Kesalahan	Pembetulan
<i>mengunakan</i>	Ejaan	Menggunakan
<i>yaitu</i>	Ejaan	iaitu
<i>berbelanjaan</i>	Ejaan	Perbelanjaan
<i>persoalanya</i>	Ejaan	Persoalannya
<i>memulakkan</i>	Ejaan	Memulakan
<i>rebunnya</i>	Ejaan	Rebungnya
<i>dipraktikkan oleh kita</i>	Ayat pasif	Kita praktikkan
<i>di masa hadapan</i>	Kata sendi	Pada masa hadapan
<i>justeru itu</i>	Kata hubung/ Penanda wacana	Oleh itu/ justeru
<i>disamping itu</i>	Kata sendi	Di samping itu
<i>antara langkah-langkah</i>	Frasa jamak	Antara langkah
<i>terdapat beberapa langkah-langkah</i>	Frasa jamak	Terdapat beberapa langkah
<i>selain daripada itu</i>	Penanda Wacana	Selain itu
<i>sejak dari</i>	Kata sendi/ kata hubung	Sejak / dari
<i>ini kerana</i>	Penanda wacana	Hal ini dikatakan demikian kerana / Hal ini demikian kerana
<i>antaranya ialah memulakan</i>	Frasa	Antaranya, kita hendaklah memulakan ...
<i>ialah dengan</i>	Kata pemerli	Adalah dengan

kriteria 2 (penggunaan frasa menarik), kriteria 3 (pertautan ayat), kriteria 4 (bahasa bervariasi), kriteria 5 (ayat gramatis). Manakala kriteria 6 (kesalahan ejaan), kriteria 7 (kesalahan tatabahasa) dan kriteria 8 (tanda baca) didapati segelintir pelajar mencapai tahap baik dan kepujian. Dapatan tersebut dapat dilihat menerusi data berikut:

Analisis Data Praujian

Berdasarkan Jadual 12 dan Rajah 6, kriteria pertama yang dinilai daripada sampel karangan pelajar membuktikan bahawa, penggunaan penanda wacana dalam kalangan pelajar didapati pada tahap memuaskan sahaja dengan nilai kekerapan 43 dengan nilai peratusnya 66.2%.

Melihat kriteria yang kedua dalam Jadual 13 dan Rajah 7 pula, dapatan kajian menunjukkan penggunaan frasa menarik dalam kalangan pelajar agak lemah dan memuaskan sahaja dengan nilai purata peratusnya iaitu 50%. Hal ini membuktikan, kumpulan pelajar aras sederhana ini masih memerlukan bimbingan untuk menghasilkan frasa menarik dalam penulisan karangan agar mendapat markah yang memuaskan dalam peperiksaan dalaman di sekolah atau peperiksaan SPM.

Sementara itu, kriteria ketiga iaitu pertautan ayat didapati masih lemah dan berada pada tahap memuaskan sahaja memandangkan masih ramai pelajar tidak dapat menggunakan pertautan ayat yang

sesuai berdasarkan huraian dalam sesuatu perenggan. Hal tersebut dibuktikan melalui Jadual 14 dan Rajah 8 yang berikut:

Berlandaskan Jadual 15 dan Rajah 9 menerusi kriteria keempat iaitu penggunaan bahasa yang bervariasi pula, juga menunjukkan tahap yang lemah dan memuaskan sahaja dengan nilai kekerapan sebanyak 32 dan 33. Hal ini ternyata membuktikan bahawa, pelajar tahap sederhana masih perlu mendapatkan panduan dan bimbingan secara berterusan daripada guru untuk menggunakan variasi bahasa mengikut soalan karangan yang dikemukakan.

Hal ini juga bermaksud, pelajar perlu menunjukkan usaha untuk membaca dan

mencontohi ayat-ayat yang bervariasi daripada pelbagai sumber seperti majalah, akhbar dan internet untuk disesuaikan dalam karangan.

Sementelahan, Jadual 16 dan Rajah 10 di bawah ini pula merupakan data bagi kriteria kelima iaitu kesalahan ayat atau pembinaan ayat yang kurang gramatis. Pelajar tahap sederhana ini berada pada tahap sederhana dan lemah apabila rata-rata

Jadual 12
Analisis praujian kriteria 1

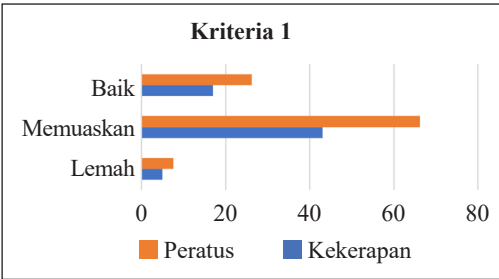
Skor	Kekerapan	Peratus
Lemah	5	7.6
Memuaskan	43	66.2
Baik	17	26.2
Jumlah	65	100.0

Jadual 13
Analisis praujian kriteria 2

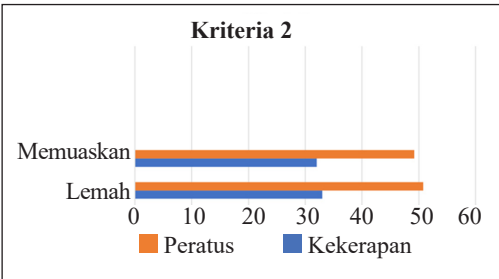
Skor	Kekerapan	Peratus
Lemah	33	50.8
Memuaskan	32	49.2
Jumlah	65	100.0

Jadual 14
Analisis praujian kriteria 3

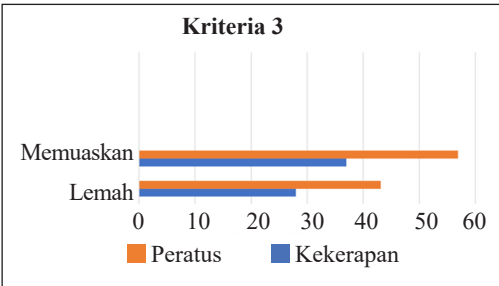
Skor	Kekerapan	Peratus
Lemah	28	43.1
Memuaskan	37	56.9
Jumlah	65	100.0



Rajah 6. Peratus dan kekerapan praujian kriteria 1



Rajah 7. Peratus dan kekerapan praujian kriteria 2



Rajah 8. Peratus dan kekerapan praujian kriteria 3

pelajar membina ayat mudah, namun masih menunjukkan kesilapan dari aspek sintaksis. Pembinaan ayat tergantung, ayat tanpa subjektif dan ayat songsang masih ketara dijumpai dalam sampel karangan pelajar.

Jika meneliti kriteria keenam menerusi Jadual 17 dan Rajah 11 yakni, kesalahan ejaan didapati agak kurang dilakukan oleh pelajar. Bagi kriteria ini, pelajar kategori ini didapati berada pada tahap baik dan kepujian. Walau bagaimanapun, sebilangan kecil kesalahan ejaan atau dikenali sebagai kesalahan ortografi ini masih dilakukan oleh kumpulan pelajar ini. Oleh yang demikian, pelajar ini perlu sentiasa cakna tentang penggunaan ejaan yang betul dalam penulisan karangan.

Jadual 15
Analisis praujian kriteria 4

Skor	Kekerapan	Peratus
Lemah	32	49.2
Memuaskan	33	50.8
Jumlah	65	100.0

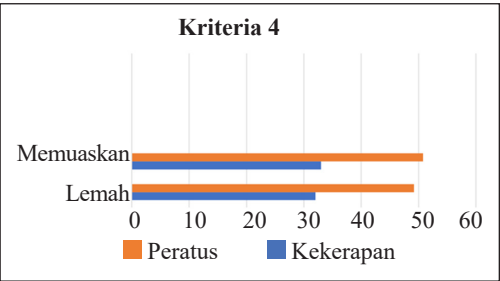
Jadual 16
Analisis praujian kriteria 5

Skor	Kekerapan	Peratus
Lemah	32	49.2
Memuaskan	33	50.8
Jumlah	65	100.0

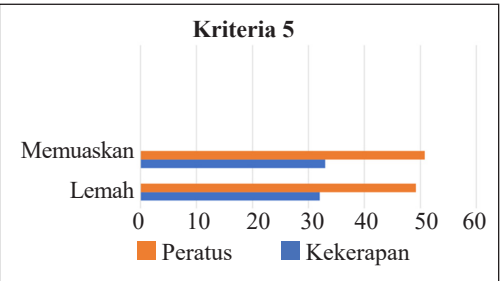
Jadual 17
Analisis praujian kriteria 6

Skor	Kekerapan	Peratus
Baik	24	36.9
Kepujian	41	63.1
Jumlah	65	100.0

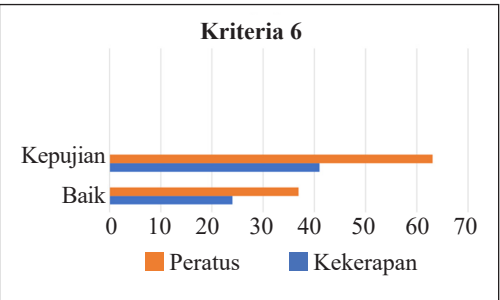
Apabila melihat kriteria yang ketujuh pula, aspek kesalahan tatabahasa didapati masih ketara berlaku dalam kalangan pelajar. Berdasarkan Jadual 18 dan Rajah 12, sebanyak 20 orang pelajar berada pada tahap lemah dan memuaskan manakala sebanyak 33 dan 12 orang pula masing-masing pada kategori baik dan kepujian. Walaupun bilangan pelajar yang melakukan kesalahan tatabahasa agak rendah, tetapi



Rajah 9. Peratus dan kekerapan praujian kriteria 4



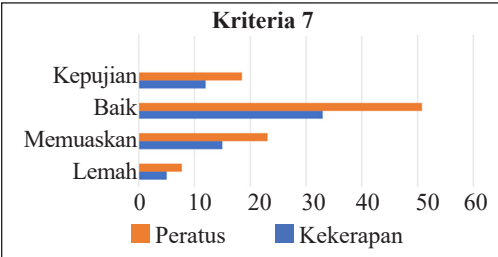
Rajah 10. Peratus dan kekerapan praujian kriteria 5



Rajah 11. Peratus dan kekerapan praujian kriteria 6

Jadual 18
Analisis praujian kriteria 7

Skor	Kekerapan	Peratus
Lemah	5	7.7
Memuaskan	15	23.1
Baik	33	50.8
Kepujian	12	18.5
Jumlah	65	100.0



Rajah 12. Peratus dan kekerapan praujian kriteria 7

aspek tatabahasa dalam bahasa Melayu hendaklah digunakan secara betul dan mengikut hukum tatabahasa yang betul.

Melihat kriteria yang terakhir, kriteria tanda baca pula, kebanyakan pelajar didapati kurang melakukan kesalahan tanda baca. Data tersebut dapat dibuktikan apabila seramai 59 pelajar berada pada tahap baik dan 6 pelajar lagi berada pada tahap kepujian. Aspek tanda baca seperti penggunaan huruf besar dan kecil, tanda koma, tanda sempang dan pembuka dan penutup pengikat kata sering kali digunakan oleh pelajar dalam penulisan karangan. Penggunaan tanda baca masih perlu diperkukuh khususnya pelajar tahap sederhana ini agar terus berusaha untuk mengurangkan kesalahan ini dalam karangan.

Oleh itu, tulisan pelajar juga memainkan peranan penting agar skrip karangan pelajar

jelas dan tiada kesalahan tanda baca yang dikenal pasti. Kesalahan-kesalahan ini dapat juga ditunjukkan menerusi sampel karangan P32 yang mengetengahkan kesilapan penggunaan tanda baca khususnya huruf besar atau huruf kecil.

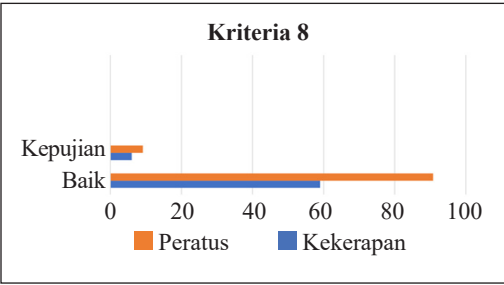
Amalan membaca amat Penting kePada masyarakat kerana melalui Pembacaanlah ilmu ditimba khususnya insan yang bergelar Pelajar. hal ini dikatakan demikian kerana dengan membaca buku. Pelajar boleh mendaPat lebih banyak maklumat yang Penting melalui buku. Jadi Pelajar mestilah banyak luangkan masa dengan membaca buku.

Jika diteliti secara mendalam, P32 tidak dapat membezakan penggunaan huruf besar dan huruf kecil dengan betul. Ayat permulaan sesuatu perkataan hendaklah dimulai dengan huruf besar, namun begitu, P32 didapati melakukan kesalahan tanda baca apabila memulakan perkataan iaitu, ‘amalan’ dengan huruf /a/ pada huruf kecil.

Selain itu, P32 juga didapati menulis huruf /p/ sebagai huruf besar pada kebanyakan perkataan. Contohnya, /P/enting, ke/P/ada, /P/embacaanlah dan /P/elajar. Hal tersebut jelas menunjukkan P32 menjadikan ia sebagai tabiat penulisan yang tidak menepati penggunaan tanda baca khususnya huruf besar dan huruf kecil dengan sebetulnya. Seterusnya kesalahan tanda baca yang merupakan kriteria kelapan dapat dipamerkan menerusi Jadual 19 dan Rajah 13.

Jadual 19
Analisis praujian kriteria 8

Skor	Kekerapan	Peratus
Baik	59	90.8
Kepujian	6	9.2
Jumlah	65	100.0



Rajah 13. Peratus dan kekerapan praujian kriteria 8

Dapatan menunjukkan kebanyakan pelajar berada pada tahap baik dan kepujian bagi kriteria kesalahan tanda baca. Hal ini bermakna, pelajar didapati mempunyai kesedaran dan cakna terhadap penggunaan tanda baca yang betul secara asasnya dalam penulisan karangan.

Kesimpulannya, hasil data praujian yang dilaksanakan ini menjadi satu mekanisme untuk membantu golongan pelajar ini memperbaiki penulisan perenggan dalam kalangan pelajar ke arah yang lebih efektif. Sehubungan itu, kaedah baharu dalam penulisan iaitu kaedah UMIBaKaP dibangunkan dan diperkenalkan kepada pelajar untuk menghasilkan karangan yang cemerlang dan matang. Untuk membantu pelajar menghasilkan karangan yang berkualiti tinggi, Lembaran Kerja (LK) UMIBaKaP dihasilkan untuk membimbing pelajar menghasilkan karangan mengikut panduan dan bimbingan secara terarah.

Analisis Data Pascaujian

Hasil pendedahan LK UMIBaKaP kepada 65 peserta kajian ini, pelajar-pelajar dapat menghasilkan perenggan karangan yang menarik, cemerlang dan matang. Hampir kesemua pelajar dapat menghasilkan sebuah perenggan yang menepati kelapan-lapan kriteria yang ditetapkan. Beberapa sampel karangan pascaujian yang dihasilkan oleh pelajar dapat ditunjukkan dalam Jadual 20 seperti berikut.

Berpandukan Jadual 20, hasil perenggan P35 menunjukkan penggunaan penanda wacana yang sesuai, penggunaan pertautan ayat yang sesuai dan menarik mengikut setiap ayat yang dikaitkan dengan baik, bahasa juga menunjukkan variasinya, tiada kesalahan ejaan mahupun tanda baca. LK UMIBaKaP yang dihasilkan dalam bentuk jadual menjadi satu panduan kepada pelajar untuk menghasilkan satu perenggan karangan secara sistematik dan terkawal.

Hal ini juga boleh membantu pelajar untuk menjimatkan masa tanpa perlu membuang masa untuk memikirkan frasa menarik, penanda wacana dan pertautan ayat kerana pelajar telah diberikan pelbagai pilihan. Hasil jawapan pelajar hendaklah ditransformasikan dalam bentuk perenggan yang terhasil seperti di bawah;

Aforisme Melayu ada mengatakan bahawa, ada kemenyan sebesar lutut, jika tidak dibakar tidak akan berbau. Ungkapan mutiara tersebut menzahirkan makna yang cukup jelas bahawa, seseorang yang ada ilmu jika tidak digunakan tidak akan

Jadual 20
Sampel karangan pascaujian P35

Teknik	Ayat Lengkap
Ungkapan Menarik (U)	Aforisme Melayu ada mengatakan bahawa, kemenyan sebesar lutut jika tidak dibakar tidak akan berbau
Mengapa (M)	Ungkapan mutiara tersebut menzahirkan makna yang cukup jelas bahawa, seseorang yang ada ilmu jika tidak digunakan tidak akan mendatangkan faedah.
Isu/ Isi (I)	Oleh itu, kita hendaklah menggunakan seluruh ilmu pengetahuan kita terutamanya kepada diri kita dan masyarakat.
Bagaimana (Ba)	Contoh ketara yang boleh diketengahkan ialah, berkongsi ilmu melalui forum yang diadakan agar dapat menyebarkan ilmu tersebut kepada masyarakat.
Kesan apa (Ka)	Kesan positif yang dapat dilihat ialah negara dapat melahirkan anak muda yang berpotensi tinggi dalam pelajaran.
Penegasan (P)	Tuntasnya, pihak masyarakat hendaklah melaksanakan suatu pelan tindakan secara bersungguh-sungguh untuk memupuk amalan membaca dan tidak seperti melepaskan batu di tangga.

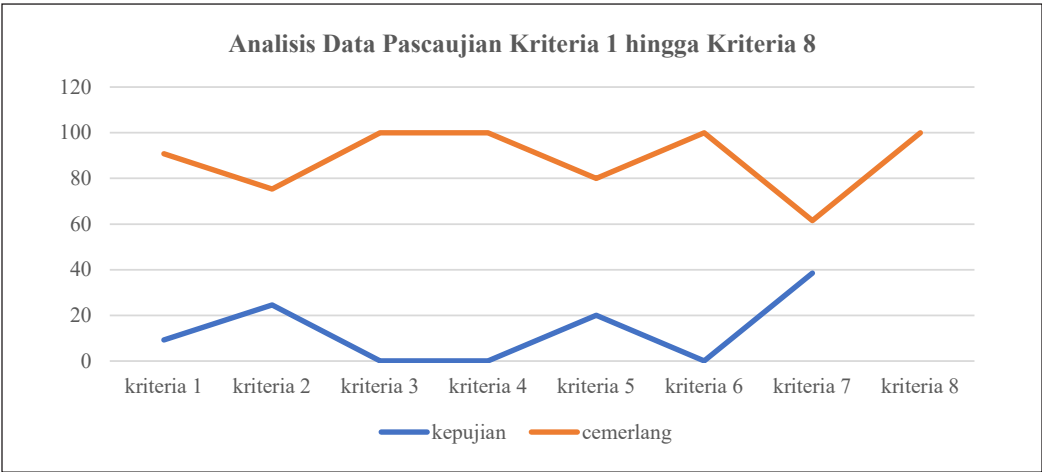
mendatangkan faedah. Oleh itu, kita hendaklah menggunakan ilmu pengetahuan terutamanya kepada diri dan masyarakat. Contoh ketara yang boleh diketengahkan ialah, kita boleh berkongsi ilmu melalui forum yang diadakan agar menyebarkan ilmu tersebut kepada masyarakat. Kesan positif yang dapat dilihat ialah negara dapat melahirkan anak muda yang berpotensi tinggi dalam pelajaran. Tuntasnya, pihak masyarakat hendaklah melaksanakan suatu pelan tindakan secara bersungguh-sungguh untuk memupuk amalan membaca dan tidak seperti melepaskan batu di tangga.

Pembinaan perenggan yang mantap dan seimbang dari segala aspek menjadi satu nilai tambah kepada pelajar untuk mencapai markah yang tinggi dalam peperiksaan. Hasil data pascaujian yang dianalisis menunjukkan, hampir semua pelajar dapat menguasai penggunaan LK

UMIBaKaP berdasarkan pendedahan dan kaedah penulisan yang baharu. Perkara tersebut dapat dibuktikan secara rinci mengikut Jadual 21 dan Rajah 14.

Secara ringkasnya, data pascaujian tersebut merupakan dapatan yang menunjukkan peningkatan serta pencapaian pelajar pada tahap cemerlang dan kepujian setelah menggunakan panduan penulisan LK UMIBaKaP. Kesemua pelajar dapat memenuhi kelapan-lapan kriteria yang ditetapkan dan berada pada skor kepujian dan cemerlang. Malah, Kriteria 3 (pertautan ayat), 4 (bahasa bervariasi), 6 (aspek ejaan) dan 8 (tanda baca) menunjukkan tahap pencapaian 100% (skor cemerlang) selepas menjalani sesi pascaujian dan memperlihatkan peningkatan yang drastik.

Hal ini selari dengan bimbingan dan panduan LK UMIBaKaP yang efektif agar pelajar dapat menulis satu perenggan baik yang menepati kelapan-lapan elemen tersebut. Berikut pula diketengahkan perbandingan data praujian dan pascaujian



Rajah 14. Keputusan pascaujian

yang memperlihatkan peningkatan pencapaian murid dalam penulisan karangan yang meliputi kelapan-lapan kriteria yang telah ditetapkan.

Analisis perbandingan Jadual 22 dan Rajah 15 tersebut jelas menunjukkan bahawa, terdapat peningkatan prestasi pelajar dalam penulisan karangan daripada pencapaian gred lemah dan memuaskan kepada gred kepujian, baik dan cemerlang. Jika diteliti secara rinci, pencapaian pelajar dari gred baik, memuaskan dan lemah berubah kepada gred cemerlang dan kepujian bagi lima kriteria yakni, kriteria 1 hingga kriteria 5. Sementara itu, bagi kriteria 6, 7 dan 8 pula, pelajar yang berada pada gred kepujian, baik, memuaskan dan lemah turut menampakkan peningkatan kepada gred cemerlang dan kepujian.

Sehubungan itu, hasil kajian ini membuktikan, penggunaan LK UMIBaKaP dapat meningkatkan tahap penulisan pelajar aras sederhana ke tahap yang cemerlang. Oleh itu, penulisan karangan khususnya

Jadual 21
Analisis data pascaujian

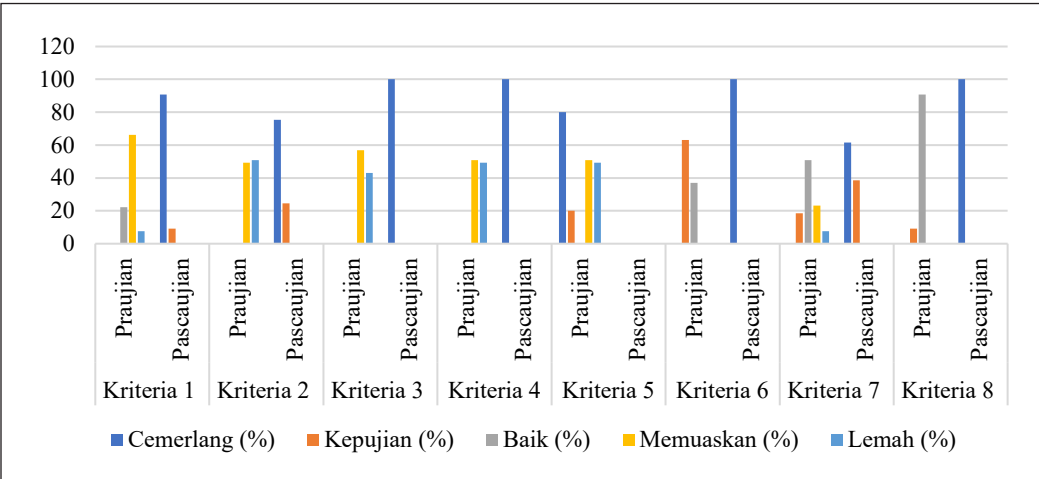
Kriteria	Kepujian (%)	Cemerlang (%)
Kriteria 1	9.2	90.8
Kriteria 2	24.6	75.4
Kriteria 3	-	100
Kriteria 4	-	100
Kriteria 5	20	80
Kriteria 6	-	100
Kriteria 7	38.5	61.5
Kriteria 8	-	100

karangan respons terbuka dalam kertas 1 Bahasa Melayu (Bahagian B) menjadi lebih mudah dan sistematik apabila pelajar dapat menggunakan jadual pembelajaran LK UMIBaKaP secara konsisten. Hasil panduan penulisan karangan berpandukan LK UMIBaKaP membolehkan murid mencapai keputusan yang cemerlang mahupun boleh berada pada gred kepujian.

Hasil kajian ini juga mendapati pelajar dapat menulis menggunakan penanda wacana atau tautan penghubung ayat mengikut kesesuaian dan relevan mengikut

Jadual 22
Analisis perbandingan data praujian dan pascaujian

	Praujian/ Pascaujian	Cemerlang (%)	Kepujian (%)	Baik (%)	Memuaskan (%)	Lemah (%)
Kriteria 1	Praujian			22.2	66.2	7.6
	Pascaujian	90.8	9.2			
Kriteria 2	Praujian				49.2	50.8
	Pascaujian	75.4	24.6			
Kriteria 3	Praujian				56.9	43.1
	Pascaujian	100	-			
Kriteria 4	Praujian				50.8	49.2
	Pascaujian	100	-			
Kriteria 5	Praujian				50.8	49.2
	Pascaujian	80	20			
Kriteria 6	Praujian		63.1	36.9		
	Pascaujian	100				
Kriteria 7	Praujian		18.5	50.8	23.1	7.7
	Pascaujian	61.5	38.5			
Kriteria 8	Praujian		9.2	90.8		
	Pascaujian	100				



Rajah 15. Perbandingan pencapaian keputusan praujian dan pascaujian

konteks perbincangan tajuk karangan. Hal ini sejajar dengan pandangan Choemue & Bram (2021) bahawa, penanda wacana atau tautan penghubung ayat berfungsi untuk memastikan pengolahan ayat yang menepati ciri-ciri koheren dan kohesi serta mempunyai kesinambungan yang baik antara perenggan dengan perenggan yang lain. Hakikatnya, pencapaian pelajar menggunakan LK UMIBaKaP merupakan

penemuan baharu yang tidak dibincangkan oleh pengkaji terdahulu.

Dari sudut koheren dan kohesi, penulisan karangan yang cemerlang dan matang hendaklah menepati kedua-dua elemen ini. Dalam linguistik, penyelarasan idea dalam karangan dianggap sebagai koheren manakala, pemakaian bahasa dan struktur ayat yang mempunyai kesinambungan yang baik dianggap sebagai kohesi (Md. Nasir, 2002). Hal ini penting selari dengan gagasan idea penulis dapat difahami secara afdal selain dapat menghayati isi kandungan dalam penulisan tersebut. Dalam konteks pendidikan, perkara ini dilihat sebagai keupayaan seseorang untuk menyampaikan idea dengan jelas dan jitu di samping menjadi pemacu perdana ke arah kejayaan dalam kurikulum (Yuneh et al, 2022).

Sekiranya dilihat dari aspek kohesi pula, pertautan antara ayat demi ayat memainkan peranan penting agar setiap unsur dalam karangan mempunyai perkaitan. Maka, penggunaan penanda wacana hendaklah menepati struktur ayat agar dapat memenuhi kriteria koheren dan kohesi dalam karangan (Ignacy & Subramaniam, 2022). Seajar dengan itu, dapatan kajian ini juga menunjukkan bahawa penulisan karangan yang memenuhi ciri-ciri koheren dan kohesi dapat meningkatkan mutu penulisan selain membentuk keyakinan pelajar untuk mengembangkan kemahiran menulis (Sakrim, 2021).

Dalam hal yang berbeza, Kanapathy (2011) bersetuju bahawa, latihan yang konsisten dan pendedahan teknik baharu secara berterusan dapat membentuk hasil

penulisan yang berimpak tinggi. Selari dengan pandangan Rahim & Othman (2016) bahawa, guru hendaklah memainkan peranan penting agar pelajar diberikan pendedahan terhadap kaedah baharu sebagai alternatif dengan cara mengaitkan idea dan memastikan pelajar menggunakan penanda wacana yang relevan mengikut tugas karangan. Hal ini dikatakan demikian kerana, pelajar dapat menghasilkan karangan melalui aturan idea yang jelas dan sistematik.

Kajian tentang keberkesanan LK UMIBaKaP menonjolkan penemuan yang signifikan yang menyumbang kepada kemahiran bahasa, terutamanya kemahiran menulis dalam bahasa Melayu. Penyelidikan ini menekankan peranan penanda wacana, kohesi ayat, dan struktur yang koheren dalam penulisan esei, mengukuhkan teori yang telah dibentangkan oleh para sarjana sebelum ini (Choemue & Bram, 2021; Md.Nasir, 2002). Kajian ini menunjukkan bahawa pengajaran menulis yang sistematik, panduan penulisan koheren dan kohesi secara berstruktur melalui LK UMIBaKaP dapat mengatasi kelemahan umum yang ditemukan dalam prestasi penulisan pelajar.

Tambahan pula, kajian ini selaras dengan argumen yang dikemukakan oleh penyelidikan terdahulu, yang berpendapat bahawa pengajaran penulisan yang berkesan perlu mengutamakan pemahaman struktur ayat dan penggunaan strategik penyambung ayat yang bervariasi (Marliana et al., 2023). Ia memberikan rangka kerja untuk menilai hasil tulisan berdasarkan pendekatan yang kohesif dan koheren, sekali gus

meningkatkan amalan pedagogi dalam pendidikan bahasa.

Kajian ini mencadangkan aplikasi yang lebih luas melalui pendekatan LK UMIBaKaP dalam konteks pendidikan yang berpotensi memberikan manfaat kepada pelajar dalam bidang kajian bahasa lain. Dengan meningkatkan kebolehan pelajar dalam menulis melalui aplikasi praktikal, LK UMIBaKaP berfungsi sebagai alat yang menghubungkan pengetahuan teori dengan hasil pembelajaran yang nyata.

LK UMIBaKaP dikatakan sesuai untuk digunakan dalam bahagian pendahuluan, isi dan penutup. Berbeza pula dengan pendekatan lama, terdapat teknik penulisan karangan yang lazim digunakan oleh pelajar iaitu teknik IMBaKuP Ibrahim, M.N (2015). Namun begitu, teknik ini pula hanya dapat digunakan dalam bahagian isi. Manakala untuk bahagian kesimpulan, teknik yang lain pula digunakan seperti teknik PCH (Pandangan, Cadangan Huraian) dan tiada teknik tertentu digunakan dalam bahagian pendahuluan.

Sementelahan, terdapat juga teknik penulisan karangan seperti teknik TIK dan THINK (untuk menulis pendahuluan), teknik TOHUCOKEP (untuk menulis bahagian isi) dan KeCaHa (untuk menulis kesimpulan). Tiga teknik yang berbeza diterapkan dalam kalangan pelajar untuk menghasilkan satu karangan secara holistik (Jabatan Pendidikan Negeri Selangor, 2019). Berbanding pula dengan kaedah UMIBaKaP, pelajar hanya perlu menguasai satu kaedah untuk digunakan dalam semua bahagian karangan. LK UMIBaKaP pula dihasilkan

sebagai panduan dan bimbingan kepada pelajar yang menawarkan pelbagai koleksi penanda wacana dan bahasa bervariasi untuk membina ayat secara koheren dan kohesi. Dalam hal ini, pelajar perlu diasah untuk menguasai ungkapan menarik seperti peribahasa, kata-kata mutiara, kata-kata tokoh untuk disesuaikan dalam karangan. Maka, guru boleh memberikan pendedahan awal kepada pelajar melalui kerangka LK UMIBaKaP yang disediakan.

Satu lagi pendekatan berbeza digunakan oleh Vayyapuri (2021) apabila memperkenalkan peta I-Think yang digunakan sebagai langkah awal untuk merangka karangan yang terdiri daripada beberapa elemen. Antaranya, ayat utama, ayat huraian, contoh yang sesuai, peribahasa dan penegasan. Kemahiran ini juga baik diterapkan dalam PdP kemahiran menulis agar pelajar dapat menghasilkan karangan dengan lebih sistematik dan terkawal. Namun begitu, penggunaan peta I-Think memerlukan pelajar memikirkan setiap elemen dalam karangan tanpa penanda wacana yang bersesuaian mengikut setiap ayat. Jika dibandingkan dengan LK UMIBaKaP, pelajar diberikan jadual LK UMIBaKaP mengikut susunan yang bertujuan untuk merangka karangan mengikut kaedah selain menggunakan pertautan ayat yang telah disediakan.

Secara praktikal, LK UMIBaKaP telah menunjukkan keberkesanannya sebagai alat pengajaran dalam meningkatkan kemahiran menulis dalam kalangan pelajar sekolah menengah atas khususnya tingkatan empat dan lima. Penyelidikan ini mendapati

bahawa pelajar yang menggunakan lembaran kerja ini menampilkan peningkatan hampir 100% dalam kemampuan menulis mereka, terutamanya dalam menggunakan penanda wacana yang sesuai dan mengekalkan kohesi ayat. Pelaksanaan LK UMIBaKaP di dalam bilik darjah menyediakan pendekatan berstruktur yang dapat diterima pakai oleh pendidik untuk memudahkan keupayaan menulis dalam kalangan murid.

Dalam konteks kajian ini, penggunaan LK UMIBaKaP yang mementingkan aspek koheren dan kohesi yang menawarkan pelbagai koleksi penanda wacana dan penggunaan bahasa bervariasi dapat membantu pelajar meningkatkan penguasaan menulis karangan dengan lebih berkesan. Oleh yang demikian, kaedah baharu yang diketengahkan adalah selari dengan panduan penulisan karangan secara terarah menjadi dasar kepada penulisan yang cemerlang, matang dan berkualiti tinggi. Malah, kaedah ini juga menjadi alternatif terbaik untuk diserapkan dalam kurikulum bahasa Melayu menengah atas sebagai pedagogi sokongan untuk melahirkan pelajar yang berkualiti dari aspek penulisan karangan.

KESIMPULAN

Secara keseluruhannya, penulisan yang koheren dan kohesif adalah tanda kematangan dalam penulisan akademik, dan mencadangkan agar program latihan penulisan yang berfokus kepada kedua-dua aspek ini diperkenalkan dalam kurikulum universiti untuk meningkatkan kemahiran penulisan pelajar. Sehubungan

itu, penggunaan panduan penulisan yang menekankan aspek koheren dan kohesi menggunakan contoh penulisan yang baik serta memberikan latihan yang berfokus kepada pengenalan penanda wacana dan struktur ayat yang berkesan.

Jelasnya, latihan yang berfokus kepada koheren dan kohesi dapat meningkatkan keyakinan pelajar dalam menulis, dengan penemuan menunjukkan bahawa pelajar yang terlibat dalam latihan ini menunjukkan peningkatan ketara dalam kemampuan mereka untuk menyusun idea dan menggunakan bahasa dengan tepat. Kesemua pandangan ini menunjukkan bahawa penekanan kepada koheren dan kohesi dalam pengajaran penulisan adalah penting untuk membangunkan penulis yang cemerlang dan berkualiti.

LK UMIBaKaP yang dibangunkan menjadi penting untuk meningkatkan kemahiran menulis karangan jenis perbincangan, menunjukkan keberkesanan yang signifikan dalam membantu murid memahami dan mengaplikasikan teknik penulisan yang betul. Melalui pendekatan yang terstruktur dan berfokus, LK UMIBaKaP menyediakan panduan yang jelas kepada murid dalam menghasilkan karangan yang berkualiti, termasuk penggunaan penanda wacana yang sesuai dan ungkapan menarik.

Dapatan kajian ini jelas menunjukkan bahawa, prestasi penulisan murid menunjukkan kenaikan graf yang ketara apabila lebih ramai murid mencapai tahap kepujian dan cemerlang dalam karangan mereka. Dengan panduan yang jelas, murid

dapat meningkatkan kualiti penulisan mereka. Hal tersebut menunjukkan bahawa LK UMIBaKaP bukan sahaja membantu murid mengatasi kesalahan bahasa yang sering dilakukan, tetapi juga membina keyakinan mereka dalam menulis.

Oleh yang demikian, penggunaan LK UMIBaKaP menjadi panduan kepada pelajar untuk menghasilkan sesebuah perenggan karangan sama ada pendahuluan, huraian isi atau kesimpulan dengan cemerlang dan matang. Hasil pascajian membuktikan, penggunaan LK UMIBaKaP sebagai alat bimbingan untuk pelajar menghasilkan sebuah perenggan yang menepati pemeriksaan SPM yang sebenar. Penerapan elemen KBAT, aktiviti berkumpulan yang menekankan PAK21 harus ditangani secara baik oleh guru di bilik darjah.

Pendedahan kepada pelajar terhadap penggunaan penanda wacana yang sesuai, koleksi frasa menarik seperti peribahasa dan pendapat tokoh, penggunaan bahasa yang bervariasi dan cara-cara menghasilkan tautan ayat telah membantu pelajar untuk menghasilkan sebuah perenggan karangan yang efektif, matang dan cemerlang. Penggunaan LK UMIBaKaP boleh diperluas dan melihat keupayaannya dalam konteks penulisan yang berbeza serta diuji terhadap pelajar yang berbeza demografinya.

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Religious Values and Local Wisdom in Rural Sanitation: A Model for Sustainable Development in Indonesia

Iskandar^{1*}, Abd. Wahidin², Muhammad Haramain³, and Afidatul Asmar⁴

¹*Islamic Communication and Broadcasting, Faculty of Ushuluddin, Adab and Da'wah, Parepare State Islamic Institute, Parepare, 91132 South Sulawesi, Indonesia*

²*Sociology of Religion, Faculty of Ushuluddin, Adab and Da'wah, Parepare State Islamic Institute, Parepare, 91132 South Sulawesi, Indonesia*

³*Islamic Guidance and Counselling, Faculty of Ushuluddin, Adab and Da'wah, Parepare State Islamic Institute, Parepare, 91132 South Sulawesi, Indonesia*

⁴*Islamic Community Development, Faculty of Ushuluddin, Adab and Da'wah, Parepare State Islamic Institute, Parepare, 91132 South Sulawesi, Indonesia*

ABSTRACT

This article investigates the recontextualisation of religious values in the development of community-based sanitation systems in rural areas, integrating local wisdom as a key component. Using a qualitative methodology with an in-depth case study approach, the research focusses on the interaction between religious values and local wisdom to develop sanitation practices and outcomes. Data were collected through in-depth interviews, participatory observation, and Focus Group Discussions (FGDs) involving religious leaders, traditional leaders, and community members. Findings showed that religious values, when aligned with local customs and values, significantly improved community shaping and engagement in sanitation initiatives. Synergies between religious teachings and traditional practices, such as gotong royong, were shown to encourage sustainable behaviour change. This research highlights the importance of integrating spiritual, social and cultural dimensions in promoting rural sanitation development, emphasising its potential as a replicable model for community-based sanitation programmes in similar rural contexts. This research contributes to the

discourse of sustainable sanitation development by offering practical insights in the application of faith-based and culturally-rooted approaches, providing a blueprint for policy makers and development practitioners in their efforts to promote sustainable sanitation systems.

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E-mail addresses:

iskandar@iainpare.ac.id (Iskandar)

abdwahidin@iainpare.ac.id (Abd. Wahidin)

haramain@iainpare.ac.id (Muhammad Haramain)

afidatulasmr@iainpare.ac.id (Afidatul Asmar)

* Corresponding author

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INTRODUCTION

Sanitation and environmental health, especially in rural and remote areas, is still a crucial issue in many countries (Bazaanah & Mothapo, 2023; Charles, 2016; Lourenço & Nunes, 2020; Moreira & Dias, 2020). Although various programmes have been implemented to improve sanitation, many communities still face challenges in terms of access to adequate sanitation facilities. In Indonesia, sanitation and environmental health, especially in rural and remote areas, remains a crucial issue (Ainy et al., 2021; Daniel et al., 2021; Haryanto, 2020; Haryanto & Sutomo, 2012; Komarulzaman et al., 2017).

Although various programmes have been implemented to improve sanitation, the reality is that many communities still face challenges in terms of access to adequate sanitation facilities. This problem is often caused not only by a lack of infrastructure, but also by a lack of understanding and awareness of the importance of sanitation (Ramos da Silva et al., 2010; Sriram & Maheswari, 2013). In this context, the reactualisation of religious values becomes very relevant as an approach that can integrate religious values and local wisdom in community sanitation development efforts (McLeod & Palmer, 2015).

Reactualisation of religious values is a concept that prioritises the role of religion in shaping people's behavior and mindset regarding environmental issues (Affandi et al., 2022). This is reinforced by the study of (Gifford & Nilsson, 2014) which states that social factors influence pro-environmental

behaviour. Da'wah is not only seen as a means to spread religious teachings, but also as a medium to invite people to actively participate in protecting and preserving their environment. Through this approach, religious values are expected to motivate people to improve the quality of sanitation, which in turn contributes to improving their health and well-being.

The term religious values in this study refers to a form of religious communication that contextually integrates spiritual and ethical teachings with ecological awareness. Taking from the Islamic tradition, da'wah is not just preaching, but a broader mission, namely Amar Ma'ruf Nahi Munkar, including environmental damage. Nasr (1968), in *The Encounter of Man and Nature*, states that the ecological crisis stems from a deeper spiritual crisis - human alienation from nature and the sacred. In this sense, religious values is an attempt to restore the spiritual connection between humans and their environment by fostering ecological virtues rooted in religious teachings. This approach positions environmental stewardship not as a secular obligation, but as a sacred mandate aligned with the Islamic principle of humans as caliphs on earth.

The concept of religious values in this research is also based on the Islamic ecological worldview developed through *fiqh al-bī'ah*, which views environmental maintenance as a religious obligation. Studies of the interpretation of Qur'anic verses by scholars in Lombok (Acim & Suharti, 2023) show that environmental damage is seen as a consequence of human

disobedience, while environmental balance is considered a divine blessing. In this context, da'wah is not only limited to the dissemination of doctrine, but also includes moral transformation, including ecological ethics. Ali Yafie, a pioneer of environmental Fiqh in Indonesia, also emphasises that preserving the environment is part of Amar Ma'ruf Nahi Munkar. Religious values is therefore a form of religious engagement that integrates spiritual awareness with sustainable action, making it particularly relevant for addressing sanitation issues in culturally rooted communities.

The religious values reactualisation approach in local wisdom-based community sanitation development is an effort that not only focusses on technical aspects, but also on social, cultural and spiritual aspects. Da'wah in this context functions as a spiritual-ecological engagement that combines the delivery of religious messages with efforts to cultivate environmental awareness, responsibility, and behavioural transformation rooted in faith and local wisdom and promote healthy and sustainable sanitation practices (Abdullah & Keshminder, 2020; Ahmad & Harrison, 2007; Mohidem & Hashim, 2023). Furthermore, Hidayat (2019) suggests that local wisdom-based sanitation development can be more easily accepted by communities because they feel that their local wisdom is valued and used as a basis for decision-making.

This is particularly important in the context of sanitation development, where there is often a gap between policies made by government or non-government organisations and the real conditions on

the ground (Maryati & Martina Azizah, 2022). A local wisdom-based approach also allows for a more open dialogue between communities and those involved in sanitation development. This dialogue allows for an exchange of ideas and experiences that can ultimately lead to more innovative solutions that meet the needs of the local community. Ultimately, by bridging spiritual values with local wisdom, religious values offer a culturally resonant and morally grounded model for sustainable sanitation development.

The study (Arsal et al., 2023; Moeis et al., 2022; Tohari, 2025) emphasizes that dialogue based on mutual respect and understanding of shared local values can strengthen social bonds within communities, which ultimately contributes to the sustainability of programmes, including community sanitation. Thus, the reactualisation of religious values in the context of local wisdom-based community sanitation development is a holistic and sustainable approach. This approach does not only focus on the end result of improving sanitation facilities, but also on the process of community empowerment through increasing environmental establishment, strengthening local wisdom values, and creating strong social cohesion. Therefore, this new paradigm is expected to be an effective model in efforts to improve the quality of community sanitation in various regions in Indonesia.

Lack of access to proper sanitation facilities is often exacerbated by a lack of understanding and awareness of the importance of sanitation. (Mariwah et al.,

2017; Montgomery, Elimelech, 2007). This leads to various diseases that have a direct impact on people's quality of life and health. Studies by (Jati et al., 2023; Prihanto et al., 2021) show that interventions based on religion and culture are more effective in influencing people's behaviour related to sanitation. Therefore, an approach that integrates religious values and local wisdom is academically and practically important to create sustainable solutions to address current sanitation issues, especially in rural communities.

Previous research has extensively discussed the relationship between religion and pro-environmental behaviour, as stated by (Greeley, 1993; Kanagy & Nelsen, 1995; Zemo & Nigus, 2021) However, most of these studies tend to focus on normative perspectives without delving deeper into the potential integration of local wisdom in the sanitation context. Studies (Kula, 2001; Preston & Baimel, 2021) also underline the importance of a religious value-based approach, but do not highlight how these values can be actualised in specific social contexts. These weaknesses indicate the need for more comprehensive research in combining religious values with local wisdom as a strategy for community sanitation empowerment.

This research aims to fill a gap in the literature by exploring the reactualisation of religious values as a strategy in local wisdom-based sanitation development. This research specifically examines how religious values and local cultural practices can be integrated to increase community awareness

and participation in sanitation programmes. With a holistic approach involving spiritual, social, and cultural aspects, this research is expected to develop a new paradigm that is more relevant and effective in addressing sanitation challenges in Indonesia.

The argument of this research is that the integration of religious values with local wisdom will increase the effectiveness of sanitation programmes in the community. In this context, religious values that touches on spiritual aspects and local culture can encourage active community participation in maintaining environmental cleanliness. This is based on the premise that religious values associated with local wisdom will be more easily accepted and implemented, thus creating sustainable behaviour change in maintaining sanitation and environmental health.

LITERATURE REVIEW

Research on the relationship between religious values, local wisdom, and sanitation development has shown several trends. First, early research highlighted the importance of religion in shaping people's environmental behaviour. Studies by (Arbuckle & Konisky, 2015; Greeley, 1993; Jia et al., 2017; Krettenauer, 2017; Tsai & Tan, 2022) found that religious values can influence pro-environmental attitudes. Secondly, local wisdom is recognised as an important aspect of environmental management, demonstrating how local cultural practices can support environmental sustainability (Kula, 2001; Negi, 2005; Sumarmi et al., 2024)

Thirdly, community participation-based sanitation approaches have been discussed in the context of sustainable development (Lüthi & Kraemer, 2012). However, this study focuses on urban sanitation, while this study focuses on rural sanitation. In addition, this study focuses more on the integration of *dakwah*, religion and local wisdom, so this literature discusses the relationship between these variables. Comprehensively, this study integrates the three elements of environmental *da'wah*, local wisdom, and sanitation in a complementary framework.

The first trend in the literature is a normative approach that focuses on religious values in promoting pro-environmental behaviour. Previous research discussing the relationship between religion and pro-environmental behaviour, as stated by (Greeley, 1993; Hunter & Toney, 2005; Kanagy & Nelsen, 1995; Zemo & Nigus, 2021) highlight how religious teachings can be used as a basis for raising environmental awareness. These studies tend to use quantitative methods to analyse the relationship between religious commitment and pro-environmental behaviour. While this approach successfully demonstrates a positive correlation between religion and the environment, its limitation lies in the lack of exploration of how these values can be applied in specific social contexts, such as local wisdom and sanitation practices. This tendency generally ignores cultural dimensions that may reinforce or hinder the implementation of religious values in daily sanitation-related behaviours.

The second trend emphasises the importance of local wisdom in environmental and sanitation management. Research by Negi (2005) and Clarke (1990) shows that traditional practices often have sustainability values that can be integrated into modern environmental programmes. These approaches are typically qualitative and descriptive, focusing on exploring locally relevant practices, such as traditional irrigation systems or environmentally friendly waste disposal methods. However, these studies tend to focus on one dimension, namely local wisdom, without regard to potential collaboration with religious values or proselytisation strategies. As a result, while this approach is contextual, its effectiveness in promoting sustainable behaviour change is limited if not supported by a more systematic religious approach.

A third trend in the literature is the participatory approach to community-based sanitation development. This research generally uses a case study methodology to evaluate sanitation programmes that involve active community participation (Abalo et al., 2017; Lüthi et al., 2009; Roma & Jeffrey, 2010). This approach often emphasises the importance of community involvement in the planning and implementation of sanitation programmes to ensure sustainability. These studies show positive results in improving sanitation quality, but tend to ignore the spiritual and cultural dimensions that can strengthen community participation. Thus, while these participatory approaches emphasise the importance of sustainability, the absence

of integration between environmental proselytisation and local wisdom makes these approaches less comprehensive and less effective in certain social contexts.

Although the three trends in previous research have significantly contributed to addressing sanitation issues, there are some shortcomings that need to be noted. Firstly, approaches that focus on religious values tend to lack contextualisation in their application. Secondly, studies that highlight local wisdom are often fragmented and not integrated with religious approaches that could strengthen environmental preaching messages. Thirdly, community participation-based research usually ignores spiritual and cultural aspects that can be key in motivating behaviour change. These weaknesses point to the need for a model that combines religious values, local wisdom and sanitation strategies in a holistic and contextualised framework.

This research formulates a new direction by integrating religious values approaches, local wisdom, and sanitation development strategies within a holistic framework. The main focus is how these three elements can complement each other in creating sustainable social change related to sanitation. By combining spiritual, cultural, and participatory approaches, this research is expected to provide practical and theoretical contributions in the development of a relevant and contextualised community sanitation empowerment model. This approach also opens up space to explore how synergies between religious values and cultural practices can improve the

effectiveness of sanitation programmes in various regions in Indonesia.

METHODS

This research uses a qualitative approach with a case study design to explore the integration of environmental *dakwah* and local wisdom in rural sanitation programmes. The qualitative approach was chosen because it can explore social phenomena in depth in a specific context, especially those involving key factors such as religious leaders, traditional leaders, and local communities. The case study design allows for a more detailed analysis of the experiences, views and practices that develop in the community regarding the application of local wisdom in sanitation programmes.

This research was conducted in two regions in South Sulawesi, Indonesia: Pinrang and Parepare. These two locations were purposively selected to represent different socio-cultural environments, yet share common values rooted in Islam and local wisdom. Pinrang, a rural area, reflects a society where traditional knowledge and social norms still shape daily practices, including environmental management. However, many villages in this area still face limitations in access to proper sanitation facilities and consistent hygiene practices. Parepare, in contrast, is a coastal urban area with more advanced sanitation infrastructure, but still faces challenges related to population density and behavioral aspects of environmental hygiene. The city also serves as a center for Islamic education and cultural interaction. In Parepare,

religious initiatives such as Friday sermons and recitations have incorporated elements of social responsibility, thus creating a strategic space to integrate religious values with sustainable sanitation messages.

Unit of Analysis

The units of analysis in this study consisted of local communities who participated in sanitation initiatives rooted in local wisdom, as well as religious and customary leaders who actively contributed to the dissemination of environmental and moral messages. The research involved 7 key informants who were purposively selected based on their involvement and knowledge of local cultural values and religious practices.

The composition of the informants included four main categories. Firstly, traditional leaders (2 people) who are actively involved in preserving and practising local traditions related to environmental concerns and communal rituals. Second, religious leaders (2 people), including mosque administrators and ustadz, who regularly deliver religious teachings and sermons with moral guidance relevant to environmental responsibility. Third, the women's community (2 people) was selected because of their important role as cultural custodians in the family and neighbourhood, especially in maintaining household sanitation and transmitting traditional norms. Fourth, youth representatives (1 person) were engaged to assess the extent to which cultural and religious values related to sanitation are understood, lived and adapted by the younger generation.

Informants were selected to reflect intergenerational and social diversity, with particular attention to their social roles, position in the community, and active engagement in cultural and religious life. This composition allowed the study to capture a more comprehensive understanding of how environmental *dakwah* and local wisdom are perceived and practised across different segments of society, ultimately supporting the goal of sustainable community-based sanitation development.

Data Source

The data collection techniques used include in-depth interviews, participatory observation, and Focus Group Discussion (FGD). Semi-structured interviews were used to explore informants' perspectives and experiences related to environmental *dakwah* and local wisdom. Participatory observation was conducted in the field to directly observe local wisdom-based sanitation practices and social interactions in the community. FGDs involved collective discussions to explore broader community views on the implementation and success of the sanitation programme. The use of these various methods ensured a deep and thorough understanding of the issues researched.

Data Analysis

Data analysis was conducted in stages using thematic analysis techniques. Data obtained from interviews, observations, and FGDs were transcribed, organised, and analysed based on themes relevant to the research

objectives. A coding process was conducted to identify main themes, subthemes, and relationships between variables. Descriptive analysis was used to understand the social and cultural dynamics that influence the implementation of sanitation programmes. Data triangulation was conducted by comparing data from different sources and data collection methods to increase the validity and reliability of the findings. With this holistic approach, this research was able to provide in-depth insights into how environmental *dakwah* and local wisdom play a role in supporting sustainable sanitation programmes.

RESULT

Implementation of Religious Values in Shaping Sanitation Awareness

The findings of this study indicate that religious values plays a meaningful role in shaping community understanding and

attitudes toward sanitation. Interviews with religious and community leaders revealed that religious messages linking cleanliness to spiritual values such as “cleanliness is part of faith” became the main motivation for communities to implement good sanitation practices. Table 1 shows the interview results with the coding that has been arranged:

For example, in an interview, a religious figure stated, “People are more receptive to calls to maintain cleanliness if it is linked to the teachings of the religion they believe in” (Informant 1, 2023). Based on field observations, it appears that regular lectures on the importance of environmental hygiene and health from a religious perspective have increased the number of households using healthy latrines. This shows the pattern that the religious approach is more effective in changing people’s behaviour than the technical approach alone. Overall, the

Table 1
Interviews with key informants

Informant	Statements	Coding
Informant 1	People are more receptive to calls to maintain cleanliness if it is linked to the teachings of the religion they believe in.	Faith-based messaging as behavioural reinforcement
Informant 2	We are used to practising environmentally friendly waste management the way our ancestors taught us.	Local wisdom in waste management
Informant 3	When we were involved from the beginning, we felt we had a responsibility to maintain and care for this facility.	Community participation in sanitation programmes
Informant 4	It's hard to change old habits because they've become part of our culture, even though we know they're not good.	Cultural resistance to change
Informant 5	Messages about the importance of maintaining environmental cleanliness are more quickly received if delivered through social media that is often accessed by the public.	The role of digital media in the spread of da'wah

Source: Tabulation of interviews by researchers (2023)

integration of *dakwah* and environmental awareness resulted in a positive response in the context of community sanitation.

Local Wisdom Values as a Key Pillar in Sustainable Sanitation Development

The study also found that the local wisdom values of Bugis culture, such as Sipakatau, Sipakainge' and Siri, play an important role in the success of sanitation programmes in rural communities. During the FGDs, one of the traditional leaders explained that people in the village have always been taught to Sipakatau or humanise and remind each other. 'In this village, people have always been taught to Sipakatau, to remind and humanize each other. This means that if we litter or pollute the water, it is the same as disrespecting others. Because other people also need a clean environment. If we have a sense of Sipakatau, we will be ashamed if we disturb others' (Informant 6, 2023).

In an FGD, one participant mentioned, "We are used to practising environmentally friendly waste management the way our ancestors taught us" (Informant 2, 2023). Observation data also showed that communities were more likely to follow sanitation practices that were in line with their customs, such as gotong royong in cleaning the neighborhood. These results indicate a pattern of linkages between the success of sanitation programmes and respect for local values. Local wisdom has been shown to provide a strong social foundation, so that sanitation programmes supported by adat are more accepted and sustainably implemented by the community.

The data shows that the synergy between environmental propaganda and local wisdom is a key factor in improving the success of sanitation programmes. The integration of these two elements has created a holistic and sustainable approach. For example, in one village, a sanitation programme that combined religious teachings with local traditions, such as 'Sibali Parri' (the spirit of gotong royong), successfully stimulated the community's enthusiasm in actively participating in a sustainable sanitation programme. The programme also strengthened social cohesion within the community. In conclusion, this synergistic pattern shows that the success of sanitation programmes depends not only on technical aspects, but also on the harmonisation of mutually reinforcing local religious and cultural values. Sanitation approaches that ignore local wisdom tend to be less effective because they do not consider the cultural and social context of the local community. In contrast, sanitation programmes based on local wisdom tend to be more easily accepted and adopted by communities because they are considered more relevant and in accordance with their values.

Sanitation approaches that ignore local wisdom tend to be less effective because they do not consider the cultural and social context of local communities. In contrast, sanitation programmes that are based on local wisdom are more likely to be accepted and adopted by the community as they find them more relevant and in line with their values.

Based on the *Key Performance Indicator* (KPI) in the technical manual (Ministry of

Public Works and Housing, 2020), all stages have been carried out well. The quantity and quality of 50 units of SANIMAS SPALD-S buildings have been completed and have been utilized by community members to date. The picture above obtained from *Focus Group Discussion (FGD)* activities by beneficiaries shows that stakeholders interact together and cooperate by integrating and practicing the local wisdom value of “sibali perri”. All institutions intersect with each other and are not outside the circle, meaning that the interaction relationship is strong and positive.

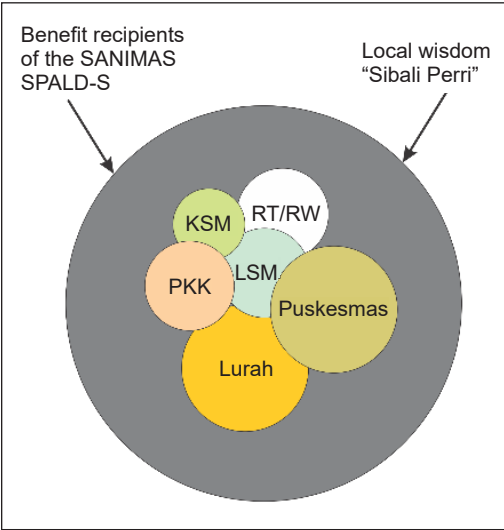


Figure 1. Venn Digram of Bittoeng Village Community

Meaningful Contribution of Community Participation in Sanitation Programme Implementation

The results of the study show that active community participation is key to the success of environmental *dakwah* and local wisdom-based sanitation programmes. Based on interviews and observations, it was found that communities who were directly involved in the planning and implementation of the programme had a higher level of ownership of the sanitation facilities built. One informant stated, “When we are involved from the beginning, we feel we have a responsibility to maintain and care for these facilities” (Informant 3, 2023). This suggests that community participation is not only instrumental but also constitutes a relational and moral process, where shared responsibility becomes a medium for internalising environmental values within collective identity.

Barriers to the Implementation of Environmental Da’wah and Local Wisdom

Despite many successes, the study also found some significant barriers in the implementation of environmental *dakwah* and local wisdom in sanitation programmes. One of the main challenges is cultural

Table 2
Comparison of local wisdom-based sanitation programme vs conventional approach

Aspects	Local Wisdom	Conventional Approach
Planning	Participatory, involving the community	Top-down, often without community participation
Implementation	Using local methods and materials	Relying on imported technology
Sustainability	High, as it is in line with local culture	Low, often abandoned after the project ends

resistance to change. Some communities still hold on to traditions that do not support good sanitation practices, such as dumping waste in the river. In an interview, a community leader stated, “It is difficult to change old habits, even though we know it is not good, because it is part of our culture” (Informant 4, 2023). This illustrates that cultural resistance is less about opposition and more about deeply embedded social memory, which requires da’wah to function as a mediator of values rather than a vehicle of change imposed from outside.

Field observations also showed that these tradition-bound communities were less responsive to sanitation programmes despite being supported by religious leaders. This suggests that da’wah strategies and sanitation programmes need to be adapted with a more persuasive and inclusive approach to overcome these cultural barriers. The research also found that integrated environmental education and da’wah can effectively increase sanitation awareness. Faith-based education programmes conducted in schools and Quran recitals perceived role in instilling the importance of sanitation from an early age. One informant who is a school teacher stated, “The children here started to apply the habit of maintaining cleanliness after getting material about the importance of cleanliness in their religion” (Informant 5, 2023). These findings highlight the role of faith-based education as a form of eco-religious socialisation, in which environmental ethics are transferred across generations through moral narratives and daily religious practices.

The research also shows that the use of digital media in religious values has an important role in spreading sanitation messages. In the digital era, da’wah through social media such as Facebook and WhatsApp is an effective tool to reach a wider audience. Some religious and community leaders have utilised these platforms to spread messages about the importance of sanitation and environmental hygiene. One informant stated, “Messages about the importance of maintaining environmental cleanliness are more quickly received if delivered through social media that are frequently accessed by the community” (Informant 6, 2023). In this context, digital media does not merely serve as a dissemination channel, but as a technological extension of religious space, reshaping the way da’wah is practiced and received in modern community life.

The Role of Religious Leaders in Motivating Behaviour Change

The role of religious leaders in motivating sanitation behaviour change is also very significant. Religious leaders who were actively involved in the sanitation programme succeeded in building community trust in the importance of behaviour change. Interviews with several religious leaders showed that the approach they used was not only based on religious teachings, but also with real examples in everyday life. One religious leader stated, “People will follow if they see direct examples from us, not just hear lectures” (Informant 7, 2023). This suggests that religious influence is most effective when it is embodied, where

authority stems from lived example rather than doctrinal speech, highlighting the performative dimension of da’wah.

The study also found that the sustainability of sanitation programmes can be maintained through integration with local wisdom. In some communities, customary values such as “sibali perri” have been the basis of various environmental hygiene initiatives. Observational data shows that sanitation initiatives based on local values are more easily accepted and adopted by the community compared to top-down approaches. One example found was the practice of gotong royong, which is routinely conducted to clean waterways and the village environment. This shows that sanitation programmes supported by local wisdom have longer durability and are more sustainable because they are based on values that have been rooted in people’s lives. This demonstrates that local wisdom serves as a cultural infrastructure, enabling environmental messages to be perceived as familiar, legitimate, and sustainable in the long term. In conclusion, combining religious values and local wisdom proved to be an effective and sustainable approach in improving the quality of community sanitation. Table 3. shows how religious

values influence sanitation practices in the community. This diagram emphasises the direct relationship between religious understanding, personal motivation, and good sanitation actions.

Taken together, these findings contribute to the development of a conceptual model of contextual religious values, in which religious values, cultural memory, and community engagement operate in synergy to shape sanitation awareness and behaviour within local ecosystems.

DISCUSSION

This study explores the contributions and social meanings of religious values reactualisation integrated with local wisdom in community sanitation development programs. The main findings show that religious values delivered through religious teachings and local wisdom practices encouraged deeper community resonance with and engagement in sanitation-related awareness and participation. Emerging improvements in household sanitation practices, as observed in the field, indicates that the integration of spiritual values and cultural norms has shaped gradual, yet meaningful, behavioural adaptation among community members. Programmes

Table 3
Religious values that support sanitation practices

No.	Religious Value	Implications for Sanitation Practices
1	Cleanliness is part of the faith	Motivation to keep the environment clean
2	Not littering	Encourage good waste management behaviour
3	Keeping water clean	Water usage Clean in daily life

Source: Researcher’s data, 2023

that combine religious values with local traditions, such as gotong royong, tend to be more socially embedded and culturally reinforced, as they are supported by deep-rooted values in community life. Barriers such as cultural resistance and limited resources remain, but were often navigated through inclusive, persuasive, and participatory approaches. These findings suggest that a culturally rooted sanitation model—grounded in religious values and local wisdom—offers a socially accepted and locally resonant pathway for promoting sustainable sanitation practices, especially in rural and remote communities.

The results of this study show that the relationship between religious values and local wisdom plays an important role in changing community behaviour related to sanitation. In theory, religious values puts forward religious values that emphasise the importance of cleanliness as part of faith (Nawawi, 1970; Nurhayati, 2019). When these values are integrated with local wisdom practices such as gotong royong and traditional irrigation systems, communities are more receptive to and implement changes in their sanitation behaviour. This explanation can be linked to the concept that contextualised and community-based approaches are more effective in addressing socio-cultural challenges than top-down approaches (Kula, 2001). This aligns with ongoing debates in the field of religion and ecology, where some scholars argue that religious environmentalism, when grounded in local traditions, offers an alternative to the mainstream environmentalism model,

which is often shaped by affluent, white Western frameworks (Baugh, 2019). Others contend that religion's role in environmental action is more complex, with some religious communities incorporating eco-friendly practices while maintaining traditional beliefs that might not overtly advocate for sustainability (Witt, 2015). Thus, the integration of da'wah and local wisdom in sanitation programmes is successful because these approaches adapt to and resonate with the values held by local communities, creating a more holistic and culturally grounded framework for behavioural change.

This research study is in line with previous studies that show the important role of religion in pro-environmental behaviour (Abd Rahman et al., 2020; Arbuckle & Konisky, 2015; Greeley, 1993; Kar & Tripathy, 2022). However, in our study we went a step further by integrating local wisdom as a key component in the sanitation strategy, an approach that has not been widely discussed in previous literature. Studies by (Negi, 2005; Sartini et al., 2023) also emphasise the importance of local wisdom in environmental sustainability, but have not linked it directly to religious values. Therefore, this study presents novelty in combining two elements that are often separated in previous studies. In the context of sanitation, this research shows that the synergy between da'wah and local wisdom can create a more holistic and effective solution compared to a single approach that only focuses on one aspect.

The meaning of the results of this study is that sanitation programmes based

on the integration of religious values and local wisdom are able to provide more contextual and sustainable solutions. In the social context, the findings show that communities are more responsive to programmes that respect and strengthen the values they already believe in. Historically, local wisdom and religion have long been the main foundation in regulating social behaviour in rural communities. This integration provides strong social legitimacy and ensures that behaviour change in sanitation can be sustained in the long term. From an ideological perspective, this approach indicates that sanitation development should not always rely on modern technology alone, but can also be rooted in local traditions and beliefs that have proven effective.

This study contributes theoretically to the development of studies on the interaction between religious values, local wisdom, and social behaviour in the context of sustainable sanitation development. By integrating religious value-based concepts with local wisdom practices such as mutual assistance and traditional irrigation systems, this research expands our understanding of how contextual and community-based approaches can be more effective in promoting behavioural change than formal, top-down bureaucratic approaches. This highlights the relevance of new institutionalism theory (Hwang, 2023; Lecours, 2005; Wijaya, 2019), which emphasises how social norms and practices interact with institutional structures in creating social change.

These findings add to our understanding of how religious values and local traditions can be a powerful source of social legitimacy in promoting desired behavioural change. This complements the views of several previous studies that have identified religion and culture as important factors in pro-environmental behaviour, but rarely explicitly link them to sanitation development programmes. This finding suggests that sanitation development models rooted in religious values and local wisdom not only provide practical contributions but also reinforce the theory of the importance of approaches grounded in social and cultural contexts for the success of sustainable development programmes. Thus, this research reaffirms the importance of incorporating local and spiritual values into the formulation of policies and development programmes to make them more effective and sustainable.

The implications of this study suggest that the religious values and local wisdom approach can be an effective model for sanitation development in rural areas. In terms of function, this approach strengthens social cohesion and increases community participation in sanitation programmes. However, there is potential for dysfunction when cultural resistance is not managed properly, as in the case of communities that continue to maintain practices that are contrary to good sanitation. Nonetheless, these results also show that with a persuasive and inclusive approach, resistance can be overcome, and communities can be encouraged to actively participate. In the

long term, this model not only improves sanitation quality but also strengthens social values that support sustainability.

The results of this study can be used as a basis for formulating more effective policies in sanitation development at the local level. The government and religious institutions should consider adopting this model as part of the national sanitation strategy. The first step is to involve religious and traditional leaders in the planning and implementation of sanitation programmes, by providing the necessary training and resources. In addition, it is important to develop preaching materials that emphasise the link between hygiene, health and religious teachings. At the community level, community involvement in programme planning and monitoring should be strengthened through dialogue forums that respect local wisdom. Thus, this approach can become a sustainable model in addressing the sanitation problems that many communities in Indonesia still face.

CONCLUSION

This study addresses the key issue of how the integration of religious values and local wisdom can provide more relevant and sustainable solutions in sanitation programs in rural areas. This issue arises as existing sanitation programs only focus on technical approaches in environment communities with strong social, cultural, and spiritual values. Therefore, this research fills the gap with an approach that incorporates spiritual aspects, and local culture can help overcome these challenges. The results showed that the integration of religious values with

local wisdom proved succeeded in shaping community awareness sanitation quality. Firstly, religious values that links cleanliness with religious teachings has succeeded in shaping community awareness, especially in terms of the importance of maintaining cleanliness as part of religious values. Second, local wisdom values such as gotong royong, sipakatau, sipakainge' and siri creates stronger community participation in sanitation programs, encouraging a sense of belonging and shared responsibility. Third, the synergy between these two elements strengthens the sustainability of the sanitation programs, which is evident in the improvement of proper sanitation facilities and changes in community behavior towards hygiene. Significantly, this research provides new insights into how community-based approaches that consider spiritual and socio-cultural aspects can provide more adaptive and sustainable solutions. This approach is able to overcome cultural resistance that is often an obstacle in conventional sanitation programs, as well as build stronger social cohesion through the involvement of religious, traditional, and community leaders. The results of this study can serve as a reference for the development of community-based sanitation models in other areas with similar social and cultural characteristics.

Implications of the Study

Significantly, this research provides new insights into how a community-based approach that considers spiritual and socio-cultural aspects can provide more adaptive and sustainable solutions. This approach is

able to overcome cultural resistance that is often an obstacle in conventional sanitation programmes, as well as build stronger social cohesion through the involvement of religious leaders, traditional leaders, and the community. The results of this research can serve as a reference for the development of rural community-based sanitation models in other areas with similar social and cultural characteristics.

Limitations and Recommendations for Future Research

There are several limitations in this study. Firstly, this study was conducted in a particular rural area with specific socio-cultural characteristics, so the results may not be generalisable to other areas with different contexts. Secondly, the data collection was conducted over a limited period of time, so long-term behavioural changes cannot be thoroughly analysed. Thirdly, the dominant role of religious and traditional leaders in the programmes has the potential to bias community perceptions of the programme's success.

Based on these limitations, recommendations for future research include several things. Firstly, further research needs to be conducted in various regions with different socio-cultural characteristics to explore whether this model of integrating religious values and local wisdom can be widely applied. Secondly, longitudinal research should be conducted to evaluate the long-term impact of this approach on sanitation behaviour change. Third, more in-depth research on the role of other actors

in the community, such as women and the younger generation, could provide a more comprehensive understanding of the social dynamics in the implementation of community-based sanitation programs.

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Leadership Structures and Financial Sector Performance: Evidence on Corporate Leadership and Supervisory Committees in the Gulf Region

Durga Prasad Samontaray* and Mohamed Abdel Mawla Osman

Department of Finance, College of Business Administration, King Saud University, Riyadh 11587, Saudi Arabia

ABSTRACT

The expansion of the Saudi economy depends on the financial markets. This study examines the relationship between corporate governance and the performance of financial institutions listed on the Saudi Stock Exchange from 2013 to 2022 using Tobin's Q framework and a social science lens. The approach used in the study incorporates aggregated data from ten financial institutions and eleven insurance companies. Structural Equation Modelling (SEM) is advised for evaluating how corporate governance attributes influence the performance of Saudi financial institutions. Financial institution performance, the dependent variable, is assessed using the return on assets (ROA) and Tobin's Q. Meanwhile, corporate governance factors serve as independent variables, encompassing various board and audit committee characteristics, as well as the financial institution's size (Bank-Insurer). The results, derived through structural equation modelling (SEM), show that governance attributes significantly shape outcomes. Notably, board size, director independence, and audit committee structure are associated with adverse effects, whereas institutional size acts as a positive driver of performance in the Saudi financial sector.

Keywords: Corporate governance, ROA, Saudi financial markets, structural equation modelling (SEM), Tobin's Q

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E-mail addresses:

dsamontaray@ksu.edu.sa (Durga Prasad Samontaray)

maosman@ksu.edu.sa (Mohamed Abdel Mawla Osman)

* Corresponding author

INTRODUCTION

History has experienced banking and financial misgovernance for many centuries ("List of corporate collapses and scandals," 2024). Few of the central global banking and financial scandals gave rise to the insolvency or bankruptcy of large banking firms (on the year of occurrence, latest first) First Republic Bank, Signature Bank,

SVB, Banco Espírito Santo (BES), Anglo Irish Bank, Bank-west, ABN-Amro, RBS, Washington Mutual, AIG, Lehman Brothers, IndyMac, Northern Rock, Bear Stearns, Barings Bank, Nordbanken, Herstatt Bank, Danatbank, Medici Bank (“List of corporate collapses and scandals,” 2024). The case of mis-governance, corporate failure, and insolvency is also extreme in the insurance and financial services industry (FTX, Wirecard, Bernard L. Madoff Investment Securities, Refco, Bayou Hedge Fund Group, HIH Insurance, Equitable Life Assurance Society, and Long-Term Capital Management are a few notable examples). Studying how governance affects financial institutions’ performance in the dynamic and developing global economy was spurred by the aforementioned significant financial sector crises.

Scholars have regularly demonstrated that an organisation’s financial success is positively impacted by competent governance (Afriyie et al., 2019; Al-Matari, 2020; Choi et al., 2021; Kapil & Mishra, 2019; Kiel & Nicholson, 2003; Pucheta & Gallego, 2020; Reguera & Bravo, 2017). Most of the previous literature excluded the banking and insurance industries due to their complex structure and governance mechanisms (Agyemang-Mintah & Schadewitz, 2018; Al-Okaily & Naueihed, 2020; Palaniappan, 2017). This study aims to close this gap by concentrating on Saudi Arabia’s financial services sector.

From the standpoint of investors, who anticipate that firms would employ robust governance procedures to safeguard their

holdings, corporate governance is similarly important (Al-Sager & Samontaray, 2018). The financial services sector has been left out of most Saudi Arabian research that focus on the connection between board makeup and business success. Only a small number of research have explicitly examined the link in the banking or insurance industries. Experiencing repeated failures in the governance of financial institutions underscore the critical importance of effective oversight structures, especially in banking (Al-Sagr et al., 2018). Empirical research in Saudi Arabia shows that board characteristics, such as size, meeting frequency, and committee independence significantly influence bank performance (Almoneef & Samontaray, 2019). For example, audit committee independence is positively associated with return on assets (ROA), return on equity (ROE), and Tobin’s Q in Saudi banks (Habtoor, 2022). Therefore, this study examines how board-level and committee-level leadership features in Saudi financial institutions affect performance, addressing a gap in prior governance research.

This study is based on the previous popular corporate governance theories explaining how the board and audit committees attributes impact the firm performance (Hermalin & Weisbach, 2003; Shleifer & Vishny, 1997), where the operations are complex and industries are highly regulated. Focusing on board characteristics (size and independence), along with the functions of audit committees, this study examines how these governance

mechanisms shape performances of Saudi financial institutions (both banking and insurance industry taken together). Understanding these relationships provides clearer insight into how leadership structures influence performance within the Gulf's financial sector.

Therefore, the purpose of this study is to investigate the effects of board composition on company performance in Saudi Arabia's different industries, using data from 2013 to 2022. The purpose of this study is to ascertain whether corporate governance characteristics, such as board size and independence, and committee-level oversight features, such as committee size and independence, have an impact on the performance of financial institutions by taking into account the banking and insurance sectors of the economy as a whole (Saudi Financial Market). We employed a simultaneous equation model (SEM) to avoid the endogeneity issues reported in the OLS equation (Gregory, 2021; Hermalin & Weisbach, 2003; Rashid, 2018). This research aims to enhance the current understanding by linking board and committee attributes of Saudi financial institutions (encompassing both banking and insurance industries) to their financial performance. In the banking or insurance sectors of the Saudi financial services sector, researchers have found links between corporate governance mechanisms (board and committee-level attributes) and firm performance (explained in the section on the review of literature below). In order to examine how board and committee characteristics affect the

financial performance of the Saudi banking and insurance industry, this study is unusual in that it combines aspects from both the banking and insurance sectors. The second section of this paper presents a comprehensive literature review and hypothesis development. The third section outlines the research methodology and variable explanation, and the subsequent sections provide discussions, analysis, conclusions, and scope for further research.

The leadership structures and supervisory committees of the corporations situated in Gulf regions, draw a special attention because of the differences in the ownership structure, governance parameters, regulatory roles and frameworks and cultural norms. In GCC banks, board independence can moderate performance but is also influenced by bank size (Almubarak & Aljughaiman, 2024; Habtoor, 2022). These Gulf Cooperation Council (GCC) regional dynamics suggest that a study of the impact of committee design and board composition on the firm performance in ways distinct from Western systems.

Research Questions

This study addresses four main research questions, as follows:

- Q1. Does Saudi Arabian Financial Institutions' Performance get affected by corporate governance?
- Q2. How do board size and the proportion of independent directors impact Saudi financial institutions' performance?

- Q3. How does committee size and the proportion of independent members within the oversight committee impact Saudi financial institutions' performance?
- Q4. How does the size of Saudi financial institutions impact their performance?

Review of Literature

Board Size and Independence

The authors, Pucheta and Gallego (2020) discovered that the company's performance was impacted by the number of female directors on the board, CEO duality, board independence, and board size. However, they were unable to identify any relationship between performance and compensation on a worldwide sample that included 34 countries. Performance is measured using Tobin's Q and return on equity (ROE). The authors have eliminated financial institutions from this analysis. In another study in Australia a positive association of compensation and performance had been noticed (Kiel and Nicholson, 2003). Osman and Samontaray (2022) emphasise that corporate governance elements significantly shape the performance of insurance firms in Saudi Arabia. They found that the performance of the enterprises was positively impacted by independent boards and larger boards. Similar studies were carried out in Saudi Arabia by Al-Sahafi et al. (2015), who found a substantial positive correlation between board size and independence and performance. Performance has been evaluated using TQ, return on

equity, and return on assets. Size has a favorable and considerable impact on the company's profitability as measured by return on assets, but it has an unexpectedly negative and strong link with stock returns, according to related research (Fariha et al., 2022).

Kapil and Mishra (2019) further reported that board size and independence contribute positively to firm success, while Al-Matari (2020), examining Omani financial institutions, confirmed that diverse experiences and independence among board members strengthened performance, though excessive board meetings had an adverse effect. Extending this line of work, Tanwer and Garg (2023) found governance variables such as attendance, independence, and female participation to be particularly relevant in non-state-owned enterprises, while largely insignificant in state-owned firms. Evidence from Saudi banks also aligns with these results: Almoneef and Samontaray (2019) showed that larger boards tend to improve both ROA and ROE, whereas Al-Faryan (2021) emphasized the value-adding effect of independence.

Despite this general support, a number of studies present contrasting outcomes. For instance, according to Rahman (2024) and Al-Absy and Hasan (2023), board composition has little to no impact on performance in the financial sectors of Bangladesh and Saudi Arabia, respectively. Boshnak et al. (2023) went further, suggesting that overly large boards and too much independence may reduce firm value, while stressing the importance of directors' experience,

education, and diversity. Similar evidence is found in India, where Mishra (2020) identified a negative relationship between independence and firm performance, and in Kuwait, where Al-Matari et al. (2012) noted that governance attributes mattered little outside the banking sector. Cheng (2008) also associated larger boards with greater variability in stock returns and weaker financial performance. Following prior worries expressed by Palaniappan (2017) and Shao (2010), Al-Matari (2022) more recently found a substantial negative correlation between board size and business results in Saudi finance.

Taken together, these findings reveal a lack of consensus: while some scholars support the positive role of board independence and size, others caution against excessive board expansion or overreliance on independence. This conflicting evidence motivates the following hypotheses:

- H1. Board size has no significant impact on the financial performance of Saudi financial institutions.
- H2. The proportion of independent directors on the board has no significant impact on the financial performance of Saudi financial institutions.

Audit Committee Size, AC Independence, and Firm Performance

In a positive study, Agyemang-Mintah and Schadewitz (2018) examined if the creation of an audit committee by financial institutions has a statistically meaningful impact on company performance. According

to a recent study by Altin (2024), the firm's performance is significantly improved by the audit committee's size, independence, experience, and affiliation with the Big 4. A comparable research by Al-Okaily and Naueihed (2020) found that audit committee characteristics (size, meeting frequency, and competence) were not significantly correlated with family firm performance, but they did have a positive, significant correlation with non-family firm performance. According to Al-Matari et al. (2012), there is a substantial positive correlation between the size of the audit committee and corporate performance. The performance of Saudi Arabian banks and the independence of their audit committees were shown to be strongly positively correlated in a recent study by Al-Matari (2022). Al-Sahafi et al. (2015) conducted another intriguing study that shows no correlation between the financial performance of the Saudi banking industry and the size or independence of the audit committee.

However, Fariha et al. (2022) found a substantial negative correlation between the size of the audit committee and business performance (Tobin's Q). They also looked at the audit committee chairman's independence, which is highly inversely correlated with the firm's success as shown by Tobin's Q and stock returns. According to a recent study by Osman and Samontaray (2022), firm performance suffered when audit committee independence was present. The researchers also expected a statistically significant negative correlation between business performance and the audit committee chairperson's independence

(Tobin's Q) (Fariha et al. 2022). Reviewing the relevant literature, the following hypotheses are proposed:

- H3. The impact of the audit has no discernible effect on Saudi financial organisations' financial performance.
- H4. There is no significant impact of the percentage of the number of independent members in the Audit Committee on the financial performance of Saudi Financial institutions.

Firm Size and Firm Performance

Many researchers have established a positive and significant relationship between firm size and firm performance in their studies (Pucheta & Gallego, 2020; Palaniappan, 2017; Fariha et al., 2022). In a few other studies conducted (Rashid, 2018; Shao, 2010), a mixed response was observed, albeit with a statistically insignificant effect on performance.

- H5. The scale of Saudi financial institutions has a major beneficial effect on how well such institutions perform.

Firm Performance through ROA and Tobin's Q

In effect, ROA and Tobin's Q have a crucial importance in firm performance, because they result in a more comprehensive view by combining an accounting-based measure (ROA) with a market-based measure (Tobin's Q). ROA is considered a backward-

looking measure and an indicator for efficient financial institutions for using their assets to generate earnings, while Tobin's Q is considered a forward-looking metric that indicates the market's valuation of the firm's growth opportunities. So, altogether they depict a fuller picture to success of the financial institutions. Consequently, many authors have employed both ROA and Tobin's Q for measuring firm performance using the structural-equation modelling (SEM) method (Ajibola, 2025; Issa & Abbaszadeh, 2023; Valencia, 2025). As well, other authors used ROA and Tobin's Q to measure the firm size and firm performance using regression analysis (Almoneef & Samontaray, 2019; Bhagata & Boltonb, 2019; Osman & Samontaray, 2022).

METHODOLOGY

Financial Institutions and the Study Sample

Saudi Financial institutions consists of twelve Saudi banks and twenty-four insurance companies after mergers and acquisitions (except the reinsurer and Health insurance companies). The study sample consists of 11 insurance companies (random sampling representing 45.8 % of Saudi insurance companies) and 10 Banks (representing 83% of Saudi banks).

The Saudi Stock Exchange database (TADAWUL) provided the data for the aforementioned sample banks and insurance providers between 2013 and 2022. Throughout the research time frame, none of the sampled insurers or banks ceased operations or underwent mergers with other

entities. Our dataset incorporates pooled data combined with both time series and cross-sectional aspects. It comprises 210 observations spanning 21 firms over 10 years’ timeframe, calculated based on firm-years.

Measurement of Variables

Financial Performance of Financial Institutions (Insurer or Bank)

The three main metrics used by Yip & Pang (2023) to evaluate a company’s success are Tobin’s Q, return on equity (ROE), and return on assets (ROA). Additionally, Tobin’s Q ratio was computed by Almoneef & Samontaray (2019) and Purushottam (2019) by dividing the total market capitalization by the whole asset value. Additionally, return on assets, or ROA, is the ratio of net income (before taxes and zakat) to total assets.

Corporate Governance

Corporate governance is the study’s independent variable, and it is assessed using a number of variables that the researchers have identified. Board size (Bsize), board independence (NindBsiz), and board meeting frequency (NmeetBsiz), which indicates the number of board meetings held annually, are three important board-related parameters. But the next three for the audit committee are audit size (AuditSiz), audit committee independence (Pind Audit), and audit committee meeting count (NmeetAudit). Additionally, three control variables were included by the researchers. They are firm age (Fage), foreign board membership (FB), and company size (Sizcomp). An overview of these variables is provided in Table 1.

Table 1
Explanation of the variables taken for the study

Labels	Variables	Predicted sign	Definition	Measurements
Dependent variables				
ROA			Return on Assets	The ratio of net income before tax and zakat divided by total assets
Tobin's Q			A measure of the market value of a company	Total market capitalization divided by the total asset value of the firm
Independent variables				
Bsize	Board size	Confirm the Question Mark	The board of directors	Number of directors on the board
NindepBoad	Board independence	?	Independent directors on the board	Number of independent directors on the board
Audit size	Audit Committee	?	Audit Committee	The number of audit committee members
Pind Audit	Audit committeemen	?	Independent members	The percentage of independent directors in the audit committee
SizeofComp	Company size	?	Size of Firm	Total assets of a financial institution

Source: Generated by the authors

The researchers employed Structural Equation Modeling (SEM) to analyze the interplay between the selected variables and control factors, conducting nine iterative trials. Their analysis revealed that two board-related indicators and two audit committee variables showed statistically significant relationships, collectively influencing the financial performance of financial institutions operating in Saudi Arabia. The single control variable that significantly improves the performance of Saudi financial institutions is the size of the firm (Sizcomp).

The researchers came to the conclusion that the dependent and independent variables shown in Figure 1 were the result of nine experiments. These variables present a conceptual framework for the relationships between the significant variables that test the research hypotheses.

Model Specification and Its Estimation

Before using Structural Equation Modeling (SEM), the researchers conducted an extensive literature review and then tried

to specify the model determining every relationship among variables relevant to the researchers’ interest. Figure 2 presents the Model Specification and its estimation.

The Structural Equation Model (SEM)

Many authors have exercised the structural-equation modeling (SEM) method in corporate governance and financial performance of the firms. For example, Valencia (2025), Issa and Abbaszadeh (2023) and Aoudane et al. (2025). As well, Structural equation modeling (SEM) has been used in multiple studies published in top referred (WoS & Scopus) journals to analyze complex relationships between variables in fields like social sciences, management, and marketing. For example: Eluwa and Siong (2015); Shaidan et al. (2025); Setiowati & Liem (2018); and Yudiana et al. (2021). Hence, SEM was used because it may successfully mitigate endogeneity issues that commonly occur in conventional least squares regression by establishing causal relationships between latent and observed variables (Gregory,

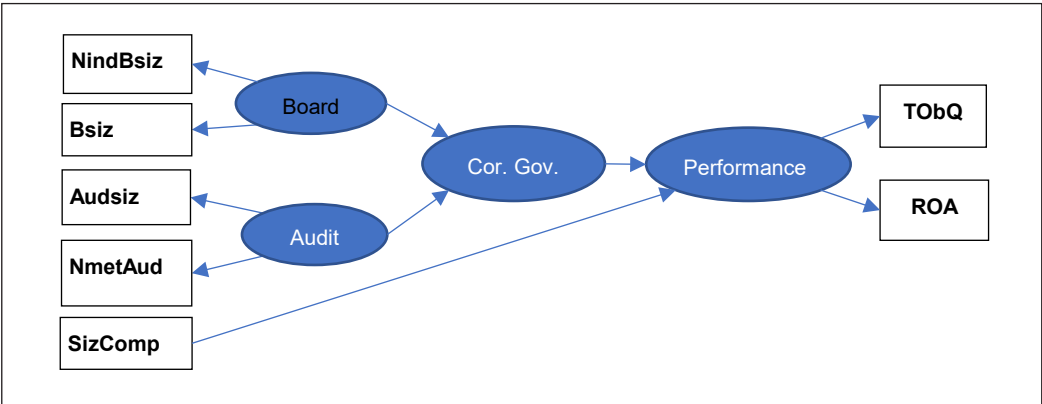


Figure 1. Conceptual framework for the relationships between the variables

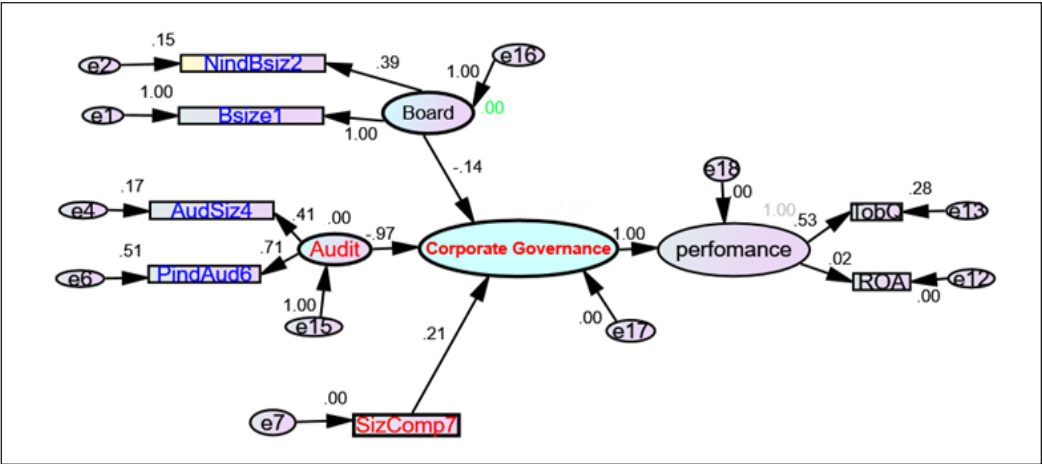


Figure 2. Measurement and structural model
Source: The significant results that were conducted by the authors using SEM

2021; Hermalin & Weisbach, 2003; Rashid, 2018). SEM has been the primary tool used to analyze the study hypotheses, which focus on assessing how corporate governance affects the performance of financial institutions in Saudi Arabia (Ramlall, 2017).

The exogenous variables (Latent variables). The connection between endogenous variables and latent variables is commonly referred to as an unobserved, intangible variable, or simply a construct. Conversely, observed variables are categorised as tangible or known variables. The variances and covariances of endogenous variables, or

observed variables, are characterized in this paradigm as functions of exogenous variables, which have the mathematical representations in [1].

The causal parameters in the matrix are denoted by α 's and β 's, each accompanied by their respective subscripts. The β coefficients correspond to the parameter estimates for exogenous variables, whereas α coefficients represent the measurements associated with endogenous variables. Additionally, the δ matrix, structured as n by m , contains the coefficients of β 's applied to x 's, while the error vector, γ , is defined as an n by 1 matrix.

In our study, the corporate governance of the Saudi financial institutions has

$$\begin{bmatrix} y_1 \\ y_2 \\ \vdots \\ y_n \end{bmatrix} = \begin{bmatrix} 0 & \alpha_{12} & \cdots & \alpha_{1n} \\ \alpha_{21} & 0 & \cdots & \alpha_{2n} \\ \cdots & \cdots & \cdots & \cdots \\ \alpha_{n1} & \alpha_{n2} & \cdots & 0 \end{bmatrix} + \begin{bmatrix} \beta_{11} & \beta_{12} & \cdots & \beta_{1m} \\ \beta_{21} & \beta_{22} & \cdots & \beta_{2m} \\ \cdots & \cdots & \cdots & \cdots \\ \beta_{n1} & \beta_{n2} & \cdots & \beta_{nm} \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ \vdots \\ x_m \end{bmatrix} + \begin{bmatrix} \gamma_1 \\ \gamma_2 \\ \vdots \\ \gamma_n \end{bmatrix}$$

[1]

been measured firstly by nine variables: three variables, for the board (i.e. BSIZE), (NinBsiz), and NmeetBsiz), three variables for the Audit committee (i.eAuditsize), PindAud, and NmeetAudit), and three control variables (i.e., Sizcomp, FB, and Fage). However, the significant results concluded for only two variables for the board, two variables for the Audit Committee, and one control variable, as indicated in Figure 2.

RESULTS AND DISCUSSION

Descriptive Statistics of Variables

As shown in Table 2 below, we provide the summary statistics of the important variables used in the study including both the dependent and independent variables prior to the analysis and interpretation of the results.

Table 2, which covers financial performance measurements like Return on Assets (ROA) and Tobin’s Q as well as corporate governance metrics, provides a descriptive summary of the key factors the research looked at. The average board size is five members, which is consistent with

earlier research by Diacon and O’Sullivan (1995) and O’Sullivan and Diacon (2003), who observed that boards frequently include less than ten directors. On average, independent directors represent 44.43% of board composition, a figure lower than the 52–56% external representation reported by Yermack (1996) and Vafeas (1999) for non-financial firms. The audit committee typically includes about 4.37 members, with 55.45% being independent directors—a relatively high proportion. Nevertheless, the predominance of executive members in these committees signals suboptimal governance practices in Saudi financial institutions. The mean institutional size is approximately 968.82 million, although this figure is skewed by several smaller entities, especially newer insurance firms under seven years old, that have incurred early-stage losses due to operational inexperience.

Data Analysis, Discussion, and Interpretation

Before conducting the Structural Equation Modelling (SEM) analysis, the researchers assessed the potential relationships between

Table 2
Descriptive statistics of variables

Variables	Minimum	Maximum	Mean	Std. Deviation
ROA	-0.09924	0.27057	0.01942	0.03064
Tobin's Q	0.04726	1.65283	0.49867	0.41040
Bsize	5.0	16.0	9.429	1.9187
NindepBoad	2.0	8.0	4.190	1.4516
Auditsize	3.0	8.0	4.371	1.2509
PindAudit	1.0	5.0	2.424	1.0965
SizofComp	45.22991	9967.96300	968.81674	1319.66159

Source: Generated by SPSS

these variables (i.e., multicollinearity) within the sample as indicated in Table 3.

Table 3 elucidates a positive relationship between board size (Bsize) and both board independence (indepBsize) and audit committee size (AudSiz). This suggests that Saudi financial institutions, including insurers and banks, with larger boards tend to exhibit greater independence and larger audit committees. As a result, larger financial institutions are expected to maintain more sizable boards.

Additionally, there is a positive link with the proportion of independent audit committee members (PinAud) but a negative correlation with audit committee size (AudSiz) and business size (Sizcomp). This implies that larger financial institutions have a higher proportion of independent members on their audit committees, whereas smaller banks often have fewer members.

Furthermore, the percentage of independent audit committee members (PindAudit) is negatively correlated with company size (SizofComp). This suggests that smaller Saudi financial institutions, such

as insurers with limited assets, often have a lower percentage of independent directors on their audit committees. As a result, financial statement audits may lack accuracy, which can potentially lead to financial losses. Conversely, larger institutions, such as banks with substantial assets, tend to have a higher proportion of independent directors on their audit committees, which ensures more precise audits and contributes to increased profitability.

Table 4 shows the measures of the fitness of the SEM model and analyses of data for testing the research hypotheses (Afriyie et al., 2019; Azim, 2012). Many generations of SEM are covariance-based methods that are conducted using the Amos software for data analysis. Using the Maximum Likelihood Estimation method in Amos (Steven & Duan, 2003), we can estimate the parameters of the Model in Equation (1). In light of the assumption of convergence of the covariance matrix of observed variables with the assumed matrix produced by the Model, various fit statistics are generated, as indicated in Table

Table 3
Correlation coefficient matrix

Variables		Bsize1	NindBsz2	AudSiz4	PindAud6	SizComp7
Bsize1	Pearson Correlation	1	0.194**	0.164*	-0.037	-0.100
			0.005	0.018	0.594	0.148
NindBsz2	Pearson Correlation		1	0.119	0.048	0.020
				0.085	0.487	0.774
AudSiz4	Pearson Correlation			1	0.289**	-0.198**
					0.000	0.004
PindAud6	Pearson Correlation				1	-0.249**
						0.000
SizComp7	Pearson Correlation					1

Table 4
Measures of the fitness of SEM model

Fit Statistics	Recommended Range (*)	Structural Model
Chi-square, χ^2 (CMIN)	--	25.763
Degrees of Freedom (DF)	--	13
χ^2 significance	Significant ($P \leq .05$)	.018
χ^2 /DF	<5.0	1.982
Goodness of fit index (GFI)	>0.90	0.968
Adjusted goodness of fit index (AGFI)	>0.90	0.930
Incremental fit index (IFI)	>0.85	.880
Comparative fit index (CFI)	>0.85	0.870
Root mean square error of approximation (RMSEA)	≤ 0.10	.069

4, to measure the fitness of the SEM model. Then the hypotheses are tested and their significance is discussed.

Table 4 presents the evaluation of the fitness of the SEM model and elucidates the extent to which the specified model successfully reproduce the observed covariance matrix among the indicator variables. The evaluation of various fit indices, as illustrated in table 4, indicates that the model’s overall fitness is satisfactory. While the model demonstrates good fit, it is prudent to assess the (χ^2) given its sensitivity to sample size. The computed χ^2 /DF value of 1.982 remains below the threshold of 5.0, further supporting model adequacy. Additionally, the model exhibits a high significance level ($p = .018$). With the recommended cut-off for indices set at 0.90, the study reports values of 0.968 and 0.930 for GFI and AGFI, respectively. Meanwhile, IFI and CFI indices are recorded at 0.880 and 0.870, with a CFI of 0.85. Although some indices fall slightly below the ideal threshold, they remain within an acceptable range, reinforcing the model’s overall suitability.

Hypothesis Testing

Table 4 demonstrates the goodness-of-fit indices using the SEM model for the variables, and Figure 2 displays its results. The standardized point estimates of the Latent variables are shown in the figures with significance at a 98.2% confidence level. As presented in Figure 2, the point estimate of -0.14 indicates a statistically significant negative association between board size and the performance of Saudi financial institutions. This finding aligns with previous research (Bhagat & Bolton, 2019; Pathan et al., 2007; Wang et al., 2007). Furthermore, larger boards are often cited as being less cohesive and more challenging to manage, which can potentially lead to a decline in performance. At the same time, studies (Boshnak et al., 2023; Cheng, 2008) demonstrated a negative relationship between board size and corporate performance variables. A similar study by Al-Matari (2022) demonstrated a significant negative relationship between board size and the corporate performance of the financial sector in Saudi Arabia.

Thus, the first null hypothesis (H1) is rejected, confirming an adverse performance relationship between board size and the Saudi financial institutions. Hence, the institutions with larger boards may experience reduced cohesion and coordination challenges, potentially leading to diminished performance.

Additionally, we observe an adverse a relationship between (Board Independence) and the Financial Performance of Saudi Financial institutions, as shown in Figure 2. This finding aligns with Hardwick et al. (2004), who observed an adverse relationship between board independence and organisational efficiency. His study suggests that greater independence may sometimes lead to less streamlined decision-making, which could potentially impact operational effectiveness.

Using data from 2003 to 2019, Mishra (2020) discovered a negative correlation between board independence and the overall performance of all listed Indian companies. According to Fariha et al. (2022), board independence and firm performance (ROA & Tobin's Q) are negatively correlated. Consequently, H2, the second null hypothesis, is disproved.

Similarly, Figure 2's point estimate of $-.97$ significant at a 98.2% confidence level indicates a statistically negative relationship between the performance of Saudi financial institutions and the audit committee's size and independent members, which is in line with previous research findings (Almoneef & Samontaray, 2019; Kajola, 2008). This result is consistent

with previous research that demonstrated a substantial negative correlation between the size of the audit committee and the success of the company as determined by Tobin's Q (Al-Sahafi et al., 2015; Fariha et al., 2022). The null hypothesis H3, according to which the performance of Saudi financial institutions will be enhanced by the audit committee's reduction in size, is therefore disproved.

In addition, the independence of the audit committee has a negative link with Saudi financial institutions, hence the null hypothesis H4 is rejected. Researchers (Fariha, Hossain, and Ghosh, 2022) have demonstrated this finding by examining a strong inverse association between audit committee independence and business performance as determined by Tobin's Q.

In Figure 2, the $-.21$ point estimate at 98.2% confidence level indicates upholding of a statistically significant positive relationship between the size of Saudi financial institution with its performance and that is similar to earlier research findings (Alqirem, et al., 2020), suggesting that the larger the size of the organization, the better the performance. Additionally, a high positive and significant relationship between firm size and firm performance has been established by Pucheta and Gallego (2020), Palaniappan (2017), and Fariha et al. (2022). Thus, we accept the fifth hypothesis, H5, which implies that the size of financial institutions has an impact on performance. Consequently, large financial institutions often tend to have higher performance compared to smaller financial institutions.

Implications of the Study and Scope for Further Research

From a research standpoint, these empirical results might provide a starting point for upcoming investigations into other facets of corporate governance and how they affect Saudi financial institutions' performance. Additionally, authorities, especially the Saudi Arabian Monetary Agency (SAMA), may find the results useful in improving corporate governance laws.

The study highlights the statistically significant impact of independent directors and audit committee characteristics on financial performance, reinforcing the importance of governance structures in shaping institutional success. Given these findings, this research contributes to the broader discussion on governance effectiveness and its practical implications.

In summary, the results provide new insights into the relationship between governance frameworks and financial performance in Saudi Arabia's financial sector. Researchers are encouraged to extend this analysis by examining additional governance-related variables, such as Director Tenure (years served on the board), average board age, and audit committee meeting frequency, to gain deeper insights into the governance mechanisms that affect institutional performance.

CONCLUSION AND IMPLICATION OF THE STUDY

Effective corporate governance plays a crucial role in ensuring that financial institutions are efficiently managed and

aligned with their mission, vision, and strategic objectives. By adopting robust governance frameworks, these institutions can enhance their overall performance and stability.

As far as the researchers are aware, this is the first thorough examination of the relationship between corporate governance factors and the performance of Saudi financial institutions, including banks and insurers. The analysis uses a sample of 10 banks and 11 insurance companies from 2013 to 2022. Key governance and performance factors were monitored in order to test the presented hypotheses, and the main analytical tool used was structural equation modeling, or SEM.

This research makes a significant contribution to the existing literature in two key ways. First of all, it is one of the first studies to examine the connection between institutional performance and corporate governance in the financial industry of Saudi Arabia. Second, it introduces SEM-based analysis, offering more profound insights into governance structures and their influence on financial outcomes.

Second, the size of the boards and audit committees of financial institutions has an impact on their performance. The empirical results demonstrate a negative relationship between the size of the board, the proportion of independent members in the audit committee, the number of independent directors on the board, and the performance of Saudi financial institutions. However, for the size of Saudi financial institutions, the results indicated a statistically significant

positive relationship between the size of these institutions and their performance, which is consistent with existing literature findings (Alqirem et al., 2020; Asadi & Ramezankhani, 2022; Schumacher & Lomax, 2010).

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APPENDIX

Results of Structural Equation Modelling (SEM)

Model Fit Summary

Supplementary Table 1
Chi-Square Value (CMIN)

Model	Number of Parameters (NPAR)	Chi-Square Value (CMIN)	Degrees of Freedom (DF)	Significance Level (P)	CMIN/ DF Ratio
Default Model	16	25.763	13	0.018	1.982
Saturated Model	28	0.000	0	—	—
Independence Model	7	119.035	21	0.000	5.668

Supplementary Table 2
Root Mean Square Residual (RMR), Goodness-of-Fit Index (GFI)

Model	Root Mean Square Residual (RMR)	Goodness-of-Fit Index (GFI)	Adjusted Goodness-of-Fit Index (AGFI)	Parsimony Goodness-of-Fit Index (PGFI)
Default Model	143.442	0.968	0.930	0.449
Saturated Model	0.000	1.000	—	—
Independence Model	146.585	0.854	0.806	0.641

Supplementary Table 3
Baseline comparisons

Model	Normed Fit Index (NFI)	Relative Fit Index (RFI)	Incremental Fit Index (IFI)	Tucker-Lewis Index (TLI)	Comparative Fit Index (CFI)
Default Model	0.784	0.650	0.880	0.790	0.870
Saturated Model	1.000	—	1.000	—	1.000
Independence Model	0.000	0.000	0.000	0.000	0.000

Supplementary Table 4
Parsimony-adjusted measures

Model	Parsimony Ratio (PRATIO)	Parsimony Normed Fit Index (PNFI)	Parsimony Comparative Fit Index (PCFI)
Default model	.619	.485	.538
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Supplementary Table 5
Non-centrality parameter (NCP)

Model	Non-Centrality Parameter (NCP)	Lower Bound (LO 90)	Upper Bound (HI 90)
Default model	12.763	2.046	31.237

Supplementary Table 5 (continue)

Model	Non-Centrality Parameter (NCP)	Lower Bound (LO 90)	Upper Bound (HI 90)
Saturated model	.000	.000	.000
Independence model	98.035	67.445	136.140

Supplementary Table 6
Minimum Fit Function (FMIN)

Model	Minimum Fit Function (FMIN)	Estimated Population Discrepancy (F0)	Lower Bound (LO 90)	Upper Bound (HI 90)
Default model	.123	.061	.010	.149
Saturated model	.000	.000	.000	.000
Independence model	.570	.469	.323	.651

Supplementary Table 7
Root Mean Square Error of Approximation (RMSEA)

Model	Root Mean Square Error of Approximation (RMSEA)	Lower Bound (LO 90)	Upper Bound (HI 90)	Probability of Close Fit (PCLOSE)
Default model	.069	.027	.107	.194
Independence model	.149	.124	.176	.000

Supplementary Table 8
Akaike Information Criterion (AIC)

Model	Akaike Information Criterion (AIC)	Browne-Cudeck Criterion (BCC)	Bayesian Information Criterion (BIC)	Consistent AIC (CAIC)
Default model	57.763	59.037	111.317	127.317
Saturated model	56.000	58.229	149.719	177.719
Independence model	133.035	133.593	156.465	163.465

Supplementary Table 9
Expected Cross-validation Index (ECVI)

Model	Expected Cross-Validation Index (ECVI)	Lower Bound (LO 90)	Upper Bound (HI 90)	Modified ECVI (MECVI)
Default Model	0.276	0.225	0.365	0.282
Saturated Model	0.268	0.268	0.268	0.279
Independence Model	0.637	0.490	0.819	0.639

Supplementary Table 10
HOELTER

Model	Hoelter's Critical N (0.05)	Hoelter's Critical N (0.01)
Default Model	182	225
Independence Model	58	69

Assessing Climate Change Sensitivity and Technology Adoption in Muda River Basin Farming Communities

Nurul Amiera Khalid¹, Nik Ahmad Sufian Burhan^{2,3*}, Jasmin Arif Shah^{1,3}, Hayrol Azril Mohamed Shaffril^{3,4}, Asnarulkhadi Abu Samah^{3,5}, Haliza Abdul Rahman³, Nobaya Ahmad^{2,3}, Shaufique Fahmi Ahmad Sidique⁶, Samsul Farid Samsudin⁷, Fredolin Tangang^{8,9}, and Liew Juneng⁸

¹*Department of Agriculture Technology, Faculty of Agriculture, Universiti Putra Malaysia, Selangor, Malaysia*

²*Department of Social and Development Sciences, Faculty of Human Ecology, Universiti Putra Malaysia, Selangor, Malaysia*

³*Institute for Social Science Studies, Universiti Putra Malaysia, Selangor, Malaysia*

⁴*Department of Social Science Education, Faculty of Social Sciences, Universitas Negeri Malang, Malang City, Indonesia*

⁵*Malaysian Research Institute on Ageing, Universiti Putra Malaysia, Selangor, Malaysia*

⁶*School of Business and Economics, Universiti Putra Malaysia, Selangor, Malaysia*

⁷*Department of Library and Information Science, Faculty of Art and Social Science, Universiti Malaya, Kuala Lumpur, Malaysia*

⁸*Department of Earth Sciences and Environment, Faculty of Science and Technology, Universiti Kebangsaan Malaysia, Selangor, Malaysia*

⁹*Faculty of Arts and Social Sciences, Universiti Brunei Darussalam, Brunei*

ABSTRACT

The Muda River Basin (MRB), Malaysia's main rice region, is increasingly vulnerable to climate change. This study examines how economic, political, cultural, and institutional sensitivities

influence farmers' adoption of climate adaptation technologies. Despite MRB's agricultural importance, empirical research on these social dimensions remains limited. A quantitative survey involving 382 farmers across five districts in Kedah was conducted using homogeneous convenience sampling. Data were collected through validated questionnaires and analysed using descriptive, correlation, and regression techniques. On a five-point Likert scale (1 to 5), the results showed that farmers had moderately high levels of technology adoption (3.68), economic (3.46), and political (3.10) sensitivity, and moderately low levels of cultural (2.04)

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E-mail addresses:

amierakhalid@gmail.com (Nurul Amiera Khalid)
nikahmadsufian@upm.edu.my (Nik Ahmad Sufian Burhan)
jasmin.arifshah@upm.edu.my (Jasmin Arif Shah)
hayrol82@gmail.com (Hayrol Azril Mohamed Shaffril)
asnarulkhadi@gmail.com (Asnarulkhadi Abu Samah)
dr.haliza@upm.edu.my (Haliza Abdul Rahman)
nobaya@upm.edu.my (Nobaya Ahmad)
shaufique@upm.edu.my (Shaufique Fahmi Ahmad Sidique)
samsulfarid@um.edu.my (Samsul Farid Samsudin)
tangang@pkriscc.ukm.my (Fredolin Tangang)
juneng@ukm.my (Liew Juneng)

*Corresponding author

and institutional (2.52) sensitivity. Correlation analysis indicates that technology adoption was positively related to economic, political, and institutional sensitivity, but negatively related to cultural sensitivity. Regression results indicated that economic and institutional factors encouraged technology adoption, while cultural factors hindered it, and political influences were minimal. Among the sensitivity dimensions, cultural sensitivity exerted the strongest influence on technology adoption, followed by institutional and economic sensitivity. Although the model's explanatory power was modest ($R^2 = 0.295$), findings underscore the need for stronger institutional support, culturally sensitive extension services, and financial incentives to build farmers' adaptive capacity and resilience. Findings suggest that policymakers should promote technology adoption by fostering cultural integration, strengthening institutions, offering economic incentives, diversifying communication, and prioritising institutional over political support for climate adaptation.

Keywords: Adaptative measures, agricultural innovation, climate resilience, institutional support, social sensitivity

INTRODUCTION

The Muda River Basin is one of the river basins in Peninsular Malaysia. It is critical in providing freshwater resources to states for domestic, industrial, and agricultural use for the states of Kedah and Penang (Ibrahim & Chan, 1996; Shamsiah Omar et al., 2023). The Muda River Basin's climate is characterised by the Northeast Monsoon from November to March, the Southwest Monsoon from May to August, and two inter-monsoons in April and October. The Muda River Basin typically receives more rainfall during the inter-monsoons because the Titiwangsa and Sumatra Mountain ranges reduce heavy rainfall brought by the northeast and southwest monsoons (Suhaila et al., 2010; Zulkafli et al., 2021).

In recent decades, the area has experienced intense weather patterns and climatic events, such as the devastating droughts caused by El Nino in 1997 and the floods caused by La Nina in 2011 and 2012. Monsoon floods have also caused

significant losses, including fatalities, in various parts of the country hit by monsoon winds. The 2010 monsoon floods in Kedah and Perlis were among Malaysia's most severe. Climate variability causes annual floods in the Muda River Basin, which are a significant source of concern. According to Ghani et al. (2010), the basin floods almost every year during the rainy season. One of the severe floods in October 2003 affected approximately 45,000 people. Furthermore, in 2011, Muda Agricultural Development Authority (MADA) reported that rice production in Kedah was hampered by a natural disaster. Floods between 2005 and 2010 damaged 48,693 hectares of fields, affecting 32,794 paddy farmers (Firdaus et al., 2017). These disruptions highlight the significant impact that climate change has on agricultural productivity.

In recent years, the Muda River Basin's climate has changed dramatically, and extreme weather events have had an impact. Climate change poses significant risks to the

basin, as evidenced by rising temperatures, shifting precipitation patterns, and increased frequency of extreme weather events (Luhaim et al., 2021). Droughts have become more frequent and severe, owing to decreased rainfall during the southwest monsoon and increased evapotranspiration rates caused by rising temperatures. Droughts have a significant economic impact, particularly on agriculture. For example, a prolonged drought in 2018 caused supply disruptions in palm oil production, affecting Malaysian economic growth, particularly in the fourth quarter of 2019. Furthermore, it was discovered that even slight temperature increases have a significant negative impact on paddy yield. According to Siwar et al. (2013), climate inconsistency has reduced rice production by 13-80% and other crops by 10-30%.

The agriculture sector in the Muda River Basin is facing significant challenges as a result of climate change, particularly in dealing with droughts and floods. Extreme weather events cause significant crop damage, financial difficulties, and reduced farmer incomes. Many efforts have been launched in Muda River Basins to mitigate climate change and assist farmers in adapting to changing climatic conditions in response to droughts and floods. Using technology is a common strategy for adapting to climate change. The use of new technology tools will help farmers improve their farming techniques (Lakhan et al., 2020). Local farmers face significant barriers to adopting agricultural technologies, resulting in a persistent lack of uptake despite the

potential benefits. According to research, extreme weather conditions force farmers to implement strategies to improve their ability to withstand challenges and maintain their means of subsistence, prompting government intervention. According to Akhtar et al. (2019), farmers in Kedah who are more adaptable to climate change have higher agricultural outputs, while those with a moderate level of adaptability also have minimal positive outcomes. There are opportunities to improve extension services and government support by providing grants and training to increase adaptability and output levels. According to Afroz et al. (2017), Malaysian rice farmers' willingness to invest in crop insurance as a disaster coping strategy has increased as extreme weather conditions have become more common. Furthermore, Chan (2014) emphasised the significance of political factors in determining the effectiveness of disaster response, highlighting that the speed and efficiency of institutional actions play a crucial role in supporting farmers' resilience. Despite these insights, limited attention has been given to how farmers' social sensitivity such as their economic, political, cultural, and institutional experiences shapes their ability and willingness to adopt agricultural technologies for climate change adaptation.

While previous studies have explored farmers' perceptions and economic responses to climate change, few have examined how multiple dimensions of social sensitivity influence farmers' ability to adopt adaptive technologies. This study is innovative in integrating social sensitivity theory with

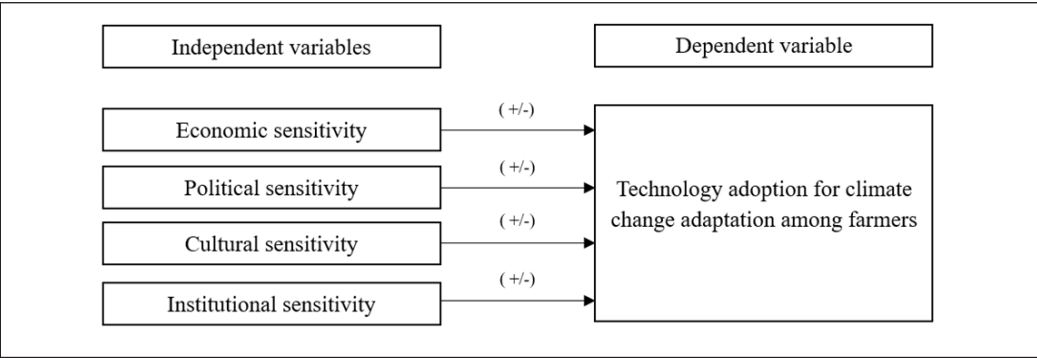


Figure 1. A conceptual framework for the relationship between sensitivity factors and farmer adoption of technology for climate change adaptation

the technology adoption framework to explain how farmers respond to climate change in the Muda River Basin. By analysing four domains of social sensitivity namely economic, political, cultural, and institutional. This research provides a more comprehensive understanding of the social factors that shape technology adoption behaviour.

The purpose of this study is to examine how these four sensitivity dimensions influence farmers’ adoption of agricultural technologies for climate change adaptation in the Muda River Basin, Kedah. Specifically, it seeks to identify which sensitivity domains most strongly affect technology adoption and to generate policy insights that strengthen farmers’ adaptive capacity through targeted economic and institutional support.

Figure 1 depicts the study’s research framework, which conceptualises four sensitivity factors as independent variables and technology adoption for climate change adaptation as a dependent variable that is hypothetically influenced by climate change sensitivity.

Definition of Terms

This section provides a precise definition of the terms used in this study.

a. Technology adoption

In this study, technological adoption refers to people's willingness and ability to integrate and implement agricultural technologies that can mitigate the negative effects of extreme climate conditions. Assessing the relative advantages, compatibility, complexity, trialability, and observability of these technologies improve farmers' efficiency and adaptability, resulting in increased productivity and adaptive capacity to climate change impacts (Amadu et al., 2020; Davis, 1989; Li et al., 2024; Rogers, 2003).

b. Climate change sensitivity

The International Union for Conservation of Nature (IUCN) defines sensitivity as a system's responsiveness or susceptibility to climate change. The interdependence of social systems is shaped by a variety of factors, including

the economy, politics, culture, and institutions, as examined by Fenton et al. (2007) and Marshall et al. (2010). These four factors have the potential to exacerbate or alleviate the effects of climate exposure.

i. Economic sensitivity

Economic sensitivity to climate change refers to how people perceive its effects on their financial well-being. This includes income, financial stability, livelihoods, living expenses, job security, employment, business operations, and economic stability. It includes concerns about adaptation costs, income loss, and productivity gains from adaptation (Abbass et al., 2022; IPCC, 2007; Nath & Behera, 2010; World Bank, 2010).

ii. Political sensitivity

Political sensitivity to climate change refers to farmers' perception of the political system's ability to address climate change as a significant factor in adaptation. Political will, the influence of political institutions on mitigation and adaptation measures, political stability, decision-making, and policy advocacy are all important factors (Adger et al., 2013b; Barnett & Adger, 2007; Gemenne et al., 2014; Silchenko & Murray, 2023).

iii. Cultural sensitivity

Cultural sensitivity to climate change refers to farmers' perceptions that climate change has impacted on

their cultural values, identities, and social practices, thereby affecting traditional lifestyles and community cohesion. Cultural sensitivity involves incorporating cultural heritage, traditional ecological knowledge, and community identities into climate change adaptation strategies (Adger et al., 2013a; Crate & Nuttall, 2016; Fatorić & Egberts, 2020; Kostis & Kafka, 2023).

iv. Institutional sensitivity

Institutional sensitivity to climate change refers to farmers' perceptions of relevant institutions and organizations' ability to deal with climate change and its consequences. These institutions can implement and enforce climate policies, support adaptation and mitigation efforts, and manage resources (Adom et al., 2023; Ampaire et al., 2017; Azhoni et al., 2017; Jaaffar et al., 2018; World Bank, 2010).

LITERATURE REVIEW

Farmers are being forced to modify their agricultural operations in order to ensure the sector's long-term viability as the effects of climate change worsen. The adoption of agricultural technology is a critical factor in determining an agricultural community's ability to successfully deal with climate variability. Adoption of technologies refers to the integration of new innovations, such as tools, strategies, and practices. It

is critical to understand the relationship between economic, political, cultural, and institutional sensitivity to encourage farmers to use new technology during climate extremes.

Economic Sensitivity of Farmers towards Technology Adoption for Climate Change Adaptation

Economic sensitivity to climate change refers to how extreme weather affects farmers' financial stability, income, and overall economic situation. Financial capacity and sound financial behaviour play an important role in supporting Malaysian household economic well-being (Sabri et al., 2021, 2022, 2023). When farmers experience significant economic losses because of disasters such as droughts, floods, or heatwaves, their financial constraints increase, forcing them to seek adaptive solutions, including new technologies. For starters, economic losses resulting from climate extremes may encourage farmers to use technology to reduce future risks and boost productivity. Many agricultural technologies aim to reduce climate risk, either by reducing sensitivity or exposure to climate impacts (Biagini et al., 2014). Farmers who have suffered significant financial losses due to poor weather conditions are more likely to invest in technology that promises higher yields or better risk management (Harvey et al., 2018). According to Alvi and Jamil (2018), the use of technology in South Asia increases maize, rice, and wheat yields. Furthermore, drought tolerance varieties

assist farmers in dealing with extreme weather conditions because they are more resilient and provide farmers with higher productivity (Simtowe et al., 2019).

Furthermore, economic sensitivity can influence farmers' decisions regarding technology adoption. In times of economic difficulty, farmers are more likely to adopt technologies that provide immediate cash benefits or cost savings, even if they require an initial investment (Hassan et al., 2008). Financial incentives, such as subsidies or grants, can also increase their willingness to try new approaches (Wu et al., 2022). Tanti et al. (2022) discovered that smallholder farming groups will only take active and ongoing climate adaptation measures if they receive financial assistance from government-funded initiatives. Furthermore, one of the primary reasons for Pakistani farmers stated unwillingness to pay more for green energy adoption was a lack of financial resources (Elahi et al., 2022). According to Nguyen et al. (2021), the availability of financial resources increases farmers' ability to invest, particularly in high-cost technologies. When faced with financial hardship, their priority is not climate change adaptation, but rather family expenses (Kichamu et al., 2017). Furthermore, farmers could devote more attention to climate change adaptation if they were freed from economic constraints such as spending money on fertiliser (Esham & Garforth, 2013). Thus, the potential economic benefits of new technology play an important role in motivating farmers to adopt it.

Political Sensitivity of Farmers towards Technology Adoption for Climate Change Adaptation

Political sensitivity to climate change refers to political actions or responses to the consequences of climate change that are heavily influenced by policies and political stability. The adoption of new technologies by farmers can be influenced by government policies, whether supportive or restrictive. Policies that help, such as financial incentives for climate-resilient technology or increased funding for agricultural research, have been shown to increase farmers' willingness to adopt new technologies. For example, studies have shown that political ideology can influence farmers' beliefs about climate change and their willingness to use technologies as adaptation strategies (Amadou et al., 2022; Ricart et al., 2018). Farmers in politically stable environments with supportive agricultural policies are more likely to adopt climate-resilient practices (Azadi, 2021). Political instability or unfavorable policy developments, on the other hand, have the potential to create an uncertain environment and discourage investment in cutting-edge technologies (Aisen & Veiga, 2013; Bertin et al., 2016).

Farmers' trust in the government and willingness to adopt new technologies are influenced by their level of political awareness. Sarcheshmeh et al. (2018) investigated the acceptance of nuclear technology in Iran's agricultural sector and discovered that political factors have the greatest influence on farmer adoption

of nuclear technology in agriculture. On the other hand, if farmers perceive a lack of attention or support from political leaders, they may be more hesitant to adopt new technologies (Crentsil et al., 2020). Furthermore, farmers' risk perceptions and willingness to invest in new technologies are influenced by political concerns. According to Wu et al. (2023), political uncertainty can impede the adoption of new technologies. As a result, political sensitivity to climate change should be considered when promoting technological adoption for climate change adaptation within the agrarian community.

Cultural Sensitivity of Farmers towards Technology Adoption for Climate Change Adaptation

Cultural sensitivity to climate change entails understanding how climate change has influenced agricultural communities' cultural values, identities, and social practices, resulting in changes to traditional lifestyles and community cohesion. Cultural factors can have a significant impact on farmers' willingness to adopt new technologies, which may call into question established norms and practices. Smallholder farmers' indigenous and religious beliefs can influence their ability to adjust traditional and agricultural practices in response to the effects of climate change (Aidoo et al., 2021). In cultures where traditional agricultural methods are strongly adhered to, new technologies that differ from established practices may face resistance (Shen et

al., 2023). Curry et al. (2021) found that farmers are hesitant to adopt technology because they believe modern farming practices will corrupt their indigenous values and practices. Technologies that require changes in farming methods may face opposition if they appear to contradict cultural values or traditional knowledge of agricultural communities. According to Mohan et al. (2021), technological advances that necessitate changes in agricultural practices may face opposition if they appear to contradict cultural beliefs or established traditions.

Nonetheless, cultural sensitivity can make it easier to adopt new technologies if they complement or improve cultural norms. Any technology that improves the effectiveness of existing methods or incorporates indigenous knowledge is more likely to be adopted (Denashurya et al., 2023). Organisational cultures also have an impact on the effectiveness and efficiency of technological adoption (Schiller and Cui, 2010). Respect for cultural values can help to increase the adoption and acceptance of these technologies. In societies with strong community connections, methods that involve the community, such as demonstrations or peer learning, are more effective than approaches that focus on individuals (Dutta, 2007). As a result, it is critical to consider cultural sensitivity to climate change while encouraging farmers to adopt technological solutions for climate change adaptation.

Institutional Sensitivity of Farmers towards Technology Adoption for Climate Change Adaptation

Institutional sensitivity to climate change refers to farmers' perceptions of the involvement of institutions such as research organisations and agricultural cooperatives in responding to climate change impacts. The effectiveness and support of these institutions have a significant impact on farmers' willingness to adopt new technologies. Institutions play a critical role in facilitating technology adoption by providing resources, information, and technical support. For example, institutional support provided through extension services plays a significant role in the widespread adoption of technology such as climate change adaptation strategies in agriculture. Furthermore, technical assistance from extension services helps farmers improve productivity, resilience to climate change, and overall environmental management (Mashi et al., 2022). In fact, agricultural extension services offer agricultural training to help farmers successfully implement new technology (Makate, 2020).

Many agricultural technologies are typically complex, expensive, and unaffordable for small-scale farmers without significant financial assistance in the form of loans, insurance, and effective regulatory frameworks. According to Tanti et al. (2022), institutions play an important role in encouraging grassroots farmer cooperatives to adopt agricultural technologies by providing financial incentives such as subsidies and loans. Supporting inclusive

farmer groups with financial resources will ensure the long-term viability of a climate-smart agricultural system. Furthermore, access to institutional financial support, such as loans or grants, can help farmers invest in innovative technologies (Geng et al., 2024). However, the credibility and dependability of institutions influence farmer perceptions. Positive interactions with reliable and effective institutions increase the likelihood of adopting recommended technologies (Fan et al., 2023). On the other hand, negative attitudes from institutions may impede their readiness to adopt new technologies (Cafer & Rikoon, 2018). As a result, the effectiveness of these institutional supports is critical for meeting farmers' needs while encouraging the adoption of technology.

METHODOLOGY

This section provides an overview of the study's sampling, location, and instrumentation, including the validity and reliability of the research instrument. This section also discusses sampling techniques and data collection methods.

Study Location

This study was conducted in Kedah, specifically in the Muda River Basin. The Muda River Basin is a tropical basin in Northern Peninsular Malaysia, spanning 5°20'-6°20' N latitude and 100°20'-101°20' E longitude. It has a drainage area of approximately 4,111 km² and a length of 180 km, starting at Muda Dam and flowing through the districts of Baling, Kuala Muda, Kulim, Padang Terap, and Sik in Kedah

(Ghani et al., 2010) (Figure 2). Therefore, these five districts are included as the focus areas of this study.

Sampling and Data Collection

The study employed a non-probability sampling method known as convenience sampling, which allows researchers to collect data from easily accessible subjects in a timely and efficient manner. Furthermore, convenience sampling has several notable advantages, including low cost, high efficiency, and ease of implementation (Jager et al., 2017). Homogeneous samples are those that are deliberately restricted to a specific sociodemographic subgroup (Rashighi & Harris, 2017). The study employed a homogeneous convenience sampling technique, focusing on farmers with similar socioeconomic characteristics, farming experiences, and exposure to climate change impacts.

The study covered the main agricultural districts within the Muda River Basin, namely Baling, Kuala Muda, Kulim, Padang Terap, and Sik. A total of 382 rice farmers participated in the survey, with their distribution proportionate to the relative representation of each district: Kuala Muda (27.0%), Baling (22.0%), Kulim (21.0%), Sik (17.3%), and Padang Terap (12.7%). Respondents to this study were drawn from agricultural communities in the Muda River Basin, Kedah, who had experienced similar environmental conditions, relied on agricultural practices for their primary source of income, had at least 5 years of farming experience, and had lived in the

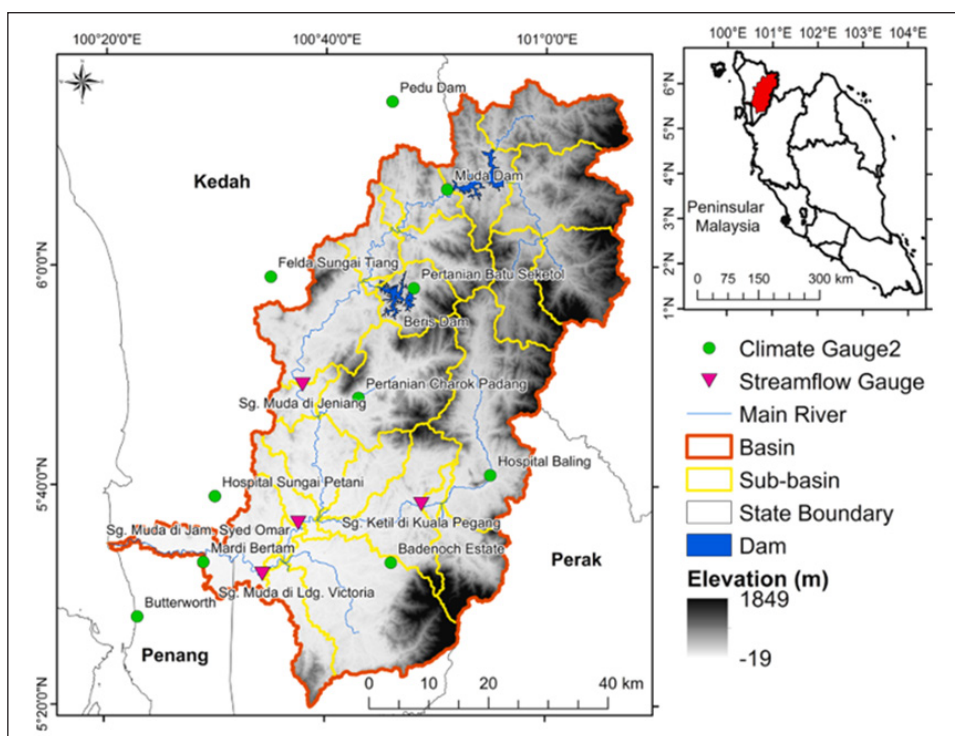


Figure 2. Illustration of the location of the study
Source: Tan et al. (2021)

Muda River basin for at least 10 years. As a result, it is possible to conclude that the homogeneity of the agriculture communities in the Muda River Basin significantly contributes to the findings' applicability to the target population. Furthermore, the study's sample size was determined using an online calculator called Raosoft.com. According to Raosoft.com's sample size calculation, a minimum of 382 respondents were required to achieve a 95% confidence level.

Research Instrument

The study used a quantitative approach, collecting information from selected

respondents via a set of questionnaires as the research instrument. This study developed the climate change sensitivity instrument primarily using the International Union of Conservation for Nature's (IUCN, 2009) Social Adaptation Framework for Climate Change Sensitivity. The items in the technology adoption section were adapted from previous research, including Al-Jabri and Sohail (2012) and Atkinson (2007). Focus group discussions (FGD) were conducted with selected farmers from the Muda River Basin to ensure that the items accurately reflected the current on-field agricultural and climatic conditions experienced by local farmers. The FGD

helped refine the wording and contextual relevance of the items. Subsequently, a pilot test was conducted with 30 farmers from non-sampled areas to ensure that respondents could clearly understand the meaning and intent of each question.

The questionnaire is in Malay to make it easier for farmers to understand, as the majority of respondents are Malay and live in rural areas. The questionnaire is divided into several sections, some of which include the respondents' demographic and farm profiles, while others contain items used to assess the study's variables, specifically technology adoption and climate change sensitivity. The constructions are built with a variety of items that are then scored on a Likert scale ranging from 1 to 5, with 1 indicating "strongly disagree" and 5 indicating "strongly agree."

Climate Change Sensitivity

Four factors of climate change sensitivity were evaluated using conceptual frameworks proposed by Fenton et al. (2007) and Marshall et al. (2010). To assess farmers' perceptions of the impact of climate

change on their economy, sociocultural practices, political system, and relevant institutions, 30 items were developed for the current study. Table 1 summarises the four sensitivity factors, including the number of items and representative sample statements used to measure each construct. A higher score on a five-point Likert scale indicates a higher level of climate change sensitivity, implying that respondents are more affected by extreme weather (both culturally and economically) and that politicians and relevant institutions are more responsive to the effects of climate change. The following four items are examples of the four sensitivity factors (Table 1).

Technology Adoption

Rogers (2003) developed the Innovation Diffusion Theory, which served as the foundation for developing a set of 20 items related to the technology adoption construct in this study. This framework depicts the five perceived attributes that influence the spread of innovations throughout society: relative advantages, compatibility, complexity, trialability, and observability. Four items

Table 1
Summary of constructs measuring climate change sensitivity

Variables	No. of items	Example of item
Economic sensitivity	9	“Extreme climate change impacts the output of my agricultural operations.”
Political sensitivity	7	“The current leaders assisted the community in mitigating the effects of extreme climate change.”
Cultural sensitivity	7	“Extreme climate change causes the practices and traditions of my village community to change.”
Institutional sensitivity	7	“Relevant institutions always provide early information about current climate changes from time to time.”

Table 2
Summary of constructs measuring technology adoption for climate change adaptation

Domain	No. of items	Example of item
Relative advantage	4	“I use agricultural technology to enhance production yields in extreme climate change conditions.”
Compatibility	4	“I am comfortable to use agricultural technology in the midst of extreme climate change condition”
Complexity	4	“It is easy for me to use agricultural technology to deal with the impacts of extreme climate change.”
Trialability	4	“Agricultural technology can be used anytime and anywhere in the midst of extreme climate change.”
Observability	4	“I have seen farmers using agricultural technology to address the impacts of extreme climate change.”

were created for each of these domains in this study. A five-point Likert scale is used to assess the score level, with higher scores indicating greater technological adoption. Table 2 presents a summary of the construct measuring technology adoption for climate change adaptation, including the five sub-dimensions, number of items, and representative sample statements.

Validity and Reliability

The study used expert validation to evaluate the items used in the measurement of the research instrument's components. To be more specific, our research instrument was validated by experts in agricultural economics, agricultural extension, and climate change. In addition, this study demonstrated the questionnaire's reliability by conducting a pilot study with 100 respondents. The pilot study was conducted in Sungai Petani, Kedah. Cronbach's alpha was used as a statistical measure to assess the internal consistency of a questionnaire, which helped to determine its reliability. Cronbach alpha values for all constructs

in the pilot test exceeded 0.75, including economic sensitivity (0.820), political sensitivity (0.765), cultural sensitivity (0.873), institutional sensitivity (0.852), and technology adoption (0.919). A Cronbach's alpha value of 0.6 or higher indicates the instrument's reliability. This demonstrates that all items are reliable in assessing their respective constructs (Cronbach, 1951).

RESULTS

This section presents the study's findings, which are organised into three sections: descriptive analysis, correlation analysis, and regression analysis. The first section looks at farmers' sensitivity to climate change and their adoption of technology. The second section investigates the correlation between the sensitivity domains and technological adoption. Meanwhile, the final section used regression analysis to investigate the strength of the impact of sensitivity variables on technology adoption for climate change adaptation in agricultural communities.

Table 3
Level of sensitivity factors and technology adoption

	Mean	Standard Deviation	Level
Economic sensitivity	3.46	0.688	Moderately high
Political sensitivity	3.10	0.795	Moderately high
Cultural sensitivity	2.04	0.880	Moderately low
Institutional sensitivity	2.52	0.804	Moderately low
Technology Adoption	3.68	0.723	Moderately High

Note. Mean scores relative to five-point Likert scale 1-5 (low-high)

Descriptive Analysis

Among the 382 respondents, 345 were male and 37 were female farmers who live in the Muda River Basins. The results show that the mean age of respondents is 49.37 years old (std dev = 14.58), the average monthly income is RM2,035.60 (std dev = 2780.95), and the average number of years of farming experience is 14 years (std dev = 12.54). To assess the level of each domain, this study used a five-point Likert scale with values ranging from 1 to 5. Nunnally and Bernstein (1994) proposed the following mean value interpretation method for five-point Likert scale categories: 1.00-2.00 (low), 2.01-3.00 (moderately low), 3.01-4.00 (moderately high), and 4.01-5.00 (high).

Table 3 presents the descriptive mean values that reflect the current levels of each sensitivity dimension and technology adoption among farmers. These results provide an overview of the existing conditions and serve as a basis for subsequent correlation and regression analyses. According to Table 3, technology adoption has the highest mean score (3.68) among all variables, indicating that technology adoption among farmers is

moderately high. This demonstrates that the rate of technological adoption among agricultural communities is high under the current climate conditions. It is followed by political sensitivity (3.10) and economic sensitivity (3.46), both of which indicate a moderately high level. Meanwhile, farmers' institutional sensitivity (2.52) and cultural sensitivity (2.04) are moderately low.

Correlation Analysis

The study used a correlation analysis to determine the relationship between climate change sensitivity factors and farmers' adoption of climate change adaptation technologies. Table 4 displays all correlation metrics for each variable used in this study. The findings of this study indicate that technology adoption was significantly correlated with all sensitivity factors. Technology adoption showed a positive correlation with economic sensitivity ($r=0.186$, $p<0.01$), political sensitivity ($r=0.130$, $p<0.05$), and institutional sensitivity ($r=0.168$, $p<0.01$). Technology adoption and cultural sensitivity were found to be negatively correlated ($r= -0.336$, $p<0.01$). Cultural sensitivity and technology

Table 4
Relationship between sensitivity factors and technology adoption

Variables	1	2	3	4	5
(1) Economic sensitivity	1.00				
(2) Political sensitivity	0.314**	1.00			
(3) Cultural sensitivity	-0.147**	-0.290**	1.00		
(4) Institutional sensitivity	0.238**	0.240**	-0.023	1.00	
(5) Technology adoption	0.186**	0.130*	-.336**	0.168**	1.00

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Table 5
Results of regression analysis

Independent variable	Coefficients			t-statistic	Sig. level	F-statistic
	Unstandardized Coefficient		Standardized Coefficient			
	β	Std. Error	β			
(Constant)	3.719	.283		13.139	.000	12.841***
Economic sensitivity	.130	.054	.114**	2.425	.016	
Political sensitivity	.004	.044	.005	.099	.921	
Cultural sensitivity	-.289	.040	-.351***	-7.184	.000	
Institutional sensitivity	.087	.042	.097**	2.086	.038	

$R^2 = 0.295$, Adj. $R^2 = 0.272$, Std. Error of the Estimate = 0.61774

* Statistically significant at 0.10 level

** Statistically significant at 0.05 level

*** Statistically significant at 0.01 level

adoption had the strongest correlation of any of the four sensitivity variables studied. This shows that farmers who believe climate change is significantly altering their sociocultural practices have a lower rate of technological adoption.

Regression Analysis

This study used regression analysis to determine the most significant factor among climate change sensitivity that influences farmers' adoption of technology for climate change adaptation in the Muda River Basin. Table 5 displays the results of a

regression analysis in which four variables (economic sensitivity, political sensitivity, cultural sensitivity, and institutional) were hypothesised to influence farmer technology adoption.

The relationship between climate change sensitivity dimensions and technology adoption was examined using a multiple linear regression model. The estimated model, based on standardised regression coefficients, can be expressed as follows:

$$Y = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_i$$

Substituting the regression coefficients, the model becomes:

$$Y = 0.114X_1 + 0.005X_2 - 0.351X_3 + 0.097X_4 + \varepsilon_i$$

where:

Y = Technology Adoption

X_1 = Economic Sensitivity

X_2 = Political Sensitivity

X_3 = Cultural Sensitivity

X_4 = Institutional Sensitivity

ε_i = Error term

According to Table 5, economic sensitivity, cultural sensitivity, and institutional sensitivity all had a significant influence on farmer technology adoption. Meanwhile, political sensitivity was found to be non-significant, indicating that political actions had no influence on farmers' technological adoption for climate change adaptation among farmers in the Muda River Basin. However, while economic and institutional sensitivity were positive towards technology adoption, cultural sensitivity had a negative impact. The regression results corroborate the direction of the correlation shown earlier in Table 2. Cultural sensitivity ($\beta = -.351$) significantly influenced technological adoption at the $p < 0.001$ level, demonstrating a markedly greater effect than economic sensitivity ($\beta = .114$) and institutional sensitivity ($\beta = .097$), both of which were significant only at the 5% level. Therefore, cultural sensitivity had a threefold greater effect than economic or institutional sensitivity.

The regression model explained 29.5% of the variance in technology adoption ($R^2 = 0.295$), indicating a moderate level of explanatory power. Although this value suggests that the model captures only part of the variability in adoption behaviour, it remains meaningful. Thus, the model provides moderate but reliable support for the influence of climate change sensitivity dimensions on technology adoption among farmers in the Muda River Basin.

According to the findings, farmers are more likely to adopt agricultural technologies if they believe their economic sensitivity or adverse impact of climate change on productivity is greater, to improve their adaptation to the negative effects of climate change. Similarly, the positive impact of institutional sensitivity on technology adoption suggests that farmers are more likely to adopt technology if they believe relevant institutions are more competent or responsive to the detrimental impacts of climate change. Thus, farmers are more likely to adopt agricultural technology in response to climate extremes when they believe relevant institutions can address the impact of climate change. However, it is surprising that this study discovered a negative relationship between cultural sensitivity and technology adoption. Although the researchers hypothesized earlier in this study that higher cultural sensitivity would increase farmers' awareness of using technology in their agricultural activities, contradictory findings in this study show that farmers who feel socially and culturally disengaged as a result

of climate extremes are less likely to use technology to adapt to climate change.

DISCUSSION

The study's aim is to investigate the impact of climate change sensitivity on the adoption of agricultural technology for climate change adaptation among agricultural communities in the Muda River basin. The four dimensions of climate change sensitivities studied were economic, political, cultural, and institutional. According to the findings of both correlation and regression analyses, economic sensitivity was positively associated with technology adoption for climate change adaptation among farmers in the Muda River Basin. This demonstrates that farmers who have been severely impacted by climate extremes are more likely to use agriculture technologies as an adaptation strategy to increase productivity. Even though technology can be costly for farmers, our research shows that they are willing to adopt it because it provides better opportunities in current climate conditions. The finding is consistent with Harvey et al. (2018), who discovered that farmers who have suffered significant losses are more willing to invest in technology because it promises increased yields.

Furthermore, this study discovered that higher institutional sensitivity is associated with higher levels of technological adoption. Farmers in the Muda River Basin may have benefited from increased technological adoption as a result of more responsive actions and support from relevant institutions during climate change events.

Relevant agricultural and climate change institutions should play an important role in effectively addressing climate change's effects on farmers. For example, extension services should play a significant role in the successful adoption of technology by providing farmers with resources, information, and technical assistance. Mashi et al. (2022) found that farmers who received technical assistance from extension services increased their productivity and resilience to climate extremes. As a result, farmers in the Muda River Basin with higher economic and institutional sensitivity may be more willing to adopt agricultural technologies as a means of mitigating climate extremes.

Furthermore, while the level of technology adoption among farmers in the Muda River Basin is moderately high (i.e., 3.68/5), this study believes that technological knowledge is primarily disseminated among farmers through traditional channels, such as face-to-face interactions. According to the findings of this study, the negative impact of cultural sensitivity on technology adoption demonstrates that when farmers are socially and culturally disintegrated, they are more likely to have missed recent technological knowledge and proficiency updates. As a result, farmers who were culturally impacted by climate extremes are less likely to use technology as a strategy for adaptation. This viewpoint is consistent with Schiller and Cui's (2010) observation that the success of technology adoption is heavily influenced by organisational cultures and norms. Curry et al. (2021) also proposed that deculturation of indigenous values and practices would render technology adoption ineffective.

However, this study found that political action (typically through political or community leaders) had no significant impact on farmer technology adoption. Although some studies, such as Ricart et al. (2018) and Amadou et al. (2022), have shown that politicians can influence farmers' beliefs about climate change and their willingness to adopt technology as a climate change adaptation plan, the findings of this current study show that this mechanism did not occur in the case of Muda River Basin farmers. In particular, technology adoption among farmers in the Muda River Basin is dependent on the significant role of relevant institutions rather than politicians.

Overall, the findings of this study have significant potential to guide policy actions aimed at increasing national adoption of agricultural technology. To encourage widespread adoption of technologies among farmers, the government must priorities the creation of a favorable environment that addresses the agriculture sector's unique demands and constraints. Given that cultural sensitivity emerged as the strongest determinant of technology adoption, policy design should first recognise and incorporate local values, traditions, and social norms into agricultural programmes. Strengthening culturally embedded approaches can foster greater trust and willingness among farmers to adopt innovation. Building on this foundation, institutional and economic considerations should function as supportive mechanisms that create the enabling conditions for sustained adoption. To mitigate the financial barriers associated

with the adoption of new technology, policymakers should establish financial support programmes such as subsidies, low-interest loans, or tax incentives. This could include assistance with purchasing equipment, improving irrigation systems, or adopting climate-resilient crop varieties, ensuring that farmers, particularly smallholders, can afford these advancements.

Furthermore, policymakers should strengthen institutional capacity, which is critical for granting farmers access to resources, expertise, and technical assistance. While institutional and economic factors also influence adoption, their effects are comparatively smaller and should serve as supporting mechanisms that reinforce culturally grounded interventions. To bridge the gap between innovation development and on-farm adoption, policymakers can direct resources towards agricultural extension services, research institutes, and technology dissemination initiatives. Building on this foundation, effective communication and community engagement are essential to promoting technology adoption. Policymakers should expand communication channels and encourage cultural integration among agricultural communities. Recognising the cultural contexts in which farmers operate is essential for designing interventions that resonate with their lived experiences. Policies should therefore prioritise community-based and culturally sensitive interventions, such as involving local leaders and farmer groups in awareness campaigns, integrating indigenous knowledge with

modern practices, and designing training modules that respect local traditions and communication styles. Such participatory and culturally grounded strategies can foster greater trust, acceptance, and long-term adoption of agricultural innovations.

Building upon these community-based and culturally sensitive approaches, institutional support remains crucial but should complement rather than replace them. Policymakers should establish transparent and stable institutional mechanisms that empower culturally rooted adaptation efforts instead of politically motivated initiatives. This includes ensuring consistent funding, encouraging public-private partnerships, and protecting agricultural initiatives from political fluctuations. By focusing on these issues, governments can create an environment that encourages farmers to adopt technology that improves production and strengthens their ability to adapt to climate change problems. These policies will benefit the agricultural sector while also improving national food security, economic stability, and resilience to extreme weather events.

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Exploring Mental Health using Narrative Techniques among Performing Art Students in Malaysia

Ian Shen Goh*, Janak Ashok Teckwani, Zi Bin Su, Mahpara Reyaz Khan, Ahmad Mustaqim Yusoff, Mark Beau De Silva, and Too Sze Yuing

School of Liberal Arts and Sciences (SLAS), Faculty of Social Science and Leisure Management (FSLM), Taylor's University, 47500 Subang Jaya, Malaysia

ABSTRACT

This study explores how narrative techniques are used and how they affect Malaysian performing arts students' mental health. This study fills a major knowledge gap regarding mental health in the Malaysian performing arts community, as most of the previous research has focused on physical health and Western contexts. The study investigates the coping strategies that these students employ, the themes that are expressed, and how they use narrative techniques to communicate their experiences with mental health. Twelve Malaysian performing arts students, ages 20 to 25, representing a range of gender identities, participate in the study using semi-structured interviews and purposive sampling. Three main conclusions emerge from thematic analysis: students struggle with what to reveal in their narratives out of fear of being judged or misunderstood; narrative techniques, like writing and performance, are essential for managing and coping with mental health challenges; and narrative techniques help dispel societal misconceptions about mental health, promote empathy, and increase awareness. This qualitative study offers a more comprehensive, contextually appropriate framework for mental health support in Malaysia's performing arts industry. Incorporating narrative techniques fosters emotional development and healing, indicating that this method may prove beneficial for managing mental health challenges. The results, however, are unique to students in

the performing arts and cannot be applied to other populations. Future studies should involve a wider range of participants and investigate the long-term impacts of narrative techniques. Training facilitators may also improve these practices' therapeutic effects.

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E-mail addresses:

gohianshen@sd.taylors.edu.my (Ian Shen Goh)

janakashokteckwani@sd.taylors.edu.my (Janak Ashok Teckwani)

suzibin@sd.taylors.edu.my (Zi Bin Su)

0373288@sd.taylors.edu.my (Mahpara Reyaz Khan)

ahmadmustaqim.yusoff@taylors.edu.my (Ahmad Mustaqim Yusoff)

markbeau.desilva@taylors.edu.my (Mark Beau De Silva)

anrie.too@taylors.edu.my (Too Sze Yuing)

*Corresponding author

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INTRODUCTION

Mental health challenges are a serious global concern, especially among young adults traversing the world of academic, professional, and personal growth (Halat et al. 2023; Moitra et al., 2023). Mental health challenges seem to often remain undetected because many are oblivious when experiencing symptoms of mental health challenges. Moreover, in some societies, the stigma of 'insanity' associated with mental health prevents people from actively seeking information and ends up being a barrier to effective intervention (Ahad et al., 2023; Samsudin et al., 2023).

Performing arts students represent a unique section of individuals whose mental well-being is closely entwined with the demands and expression of their craft. These students experience their own distinct challenges that can impact their wellbeing with some of said challenges relating to creative training which can consist of long hours (Lee et al., 2023). Recent studies recorded a clear trend for increased mental health challenges across the performing arts (Equity, 2022). Employing narrative techniques in addressing mental health has gained traction in the past few years because of the nature of techniques which allow individuals to introspect, articulate and deal with mental health challenges through unconventional means of exploration and expression.

LITERATURE REVIEW

In the context of studying mental health among Malaysian performing

arts undergraduates, narrative therapy techniques were integrated into a Cognitive Behavioural Therapy framework (CBT), which is a widely researched and applied psychotherapeutic approach that focuses on the relationship between thoughts, emotions, and behaviours. Narrative approaches allow individuals to externalise their setbacks and reflect on their life stories, which helps them detect recurring patterns of thought that impact their emotional experiences (Bastemur & Bas, 2021). Students communicate their inner thoughts and emotional problems through expressive storytelling and reflective discussion, making their cognitive processes apparent and assisting in re-evaluation. This approach is consistent with CBT's goal of cognitive restructuring, as it allows individuals to challenge negative self-beliefs and restructure their narratives to reflect more empowering perspectives.

Through the exploration of their personal ideas about stress, anxiety, and performance pressure, students can get insight into how their thought habits affect their mental health and create improved coping methods. According to CBT, psychological distress is frequently caused by maladaptive thinking patterns, which can be observed and adjusted to enhance emotional regulation and behavioural implications (Rosal, 2018). The cognitive principle is central to CBT, and it states that how people perceive or interpret a situation has a significant impact on how they feel and act. For example, a performing arts student who interprets a performance critique as a

reflection of personal failure may experience increased anxiety or sadness, affecting future performances and self-worth.

Mental Health Challenges in Performing Arts Students

The scientific evidence points to a global deterioration in mental health, notably among university students, with performing arts students confronting distinct stressors such as performance anxiety, intense preparation, and public scrutiny (Emmerton et al., 2023). Performing arts, which include dance, music, theatre, and comedy, are important representations of human emotion and cultural identity that increase society well-being through mainstream media, communal rituals, and personal catharsis (Bascomb, 2019; Cid-Vega & Brown, 2023). Both creators and audiences gain from artistic engagement in terms of mental health: artists express themselves creatively, while audiences feel connection and relief (Clift, 2020; Gupta, 2020). Studies further suggest that acting fosters self-confidence, reduces anxiety, and strengthens social bonds (Perkins et al., 2021).

Nevertheless, the demands of artistic training and performance pose significant psychological risks. Performance anxiety, caused by fear of negative evaluation, is widespread and exacerbated by occupational stressors common to the creative industries (Gross & Musgrave, 2020). These fields face greater psychosocial challenges than many other professions, including public exposure, competition, and criticism (Burak & Atabek, 2019; Détári et al., 2020). Musicians, for

example, report higher levels of anxiety, depression, and sleep disorders, as well as increased reliance on mental health services (Gross & Musgrave, 2020; Kegelaers et al., 2021; Vaag et al., 2015, 2016). Dancers face multiple pressures, including rigid body standards, demanding rehearsal schedules, and complex relationship dynamics within their companies. Physical demands, such as playing-related musculoskeletal disorders in musicians, further exacerbate stress and impair performance quality (Cruder et al., 2023; Niemeier & Larsen, 2020).

Stressors, both interpersonal and intrapersonal, play important roles. Collaborative environments require artists to manage relationships with peers, management, and audiences, where collegiality can boost innovation but competing agendas can strain mental health (Ozer & Zhang, 2021). Internally, perfectionistic tendencies promote achievement while increasing vulnerability to stress (Hays, 2017). Furthermore, creativity is associated with an increased risk of affective disorders, highlighting the dual nature of creative endeavors as both therapeutic and destabilizing (Ginis et al., 2022; Kyaga et al., 2012).

Performing artists experience unique psychological stressors associated with embodying characters and narratives, which can blur their individual identities and exacerbate emotional strain (Cid-Vega & Brown, 2023; Bascomb, 2019). Narrative techniques, such as storytelling, self-narratives, and verbal/written expression, can be used to reframe identity, challenge

dominant narratives, and view struggles as possibilities for growth (White & Epston, 1990; Jean-Berluce, 2024; Macapugay & Nakamura, 2024). These methods have been linked to increased emotional well-being, decreased stress, and improved coping skills, thereby aligning therapeutic and artistic goals (Jean-Berluce, 2024).

Performing arts students utilize these techniques to meet their psychological and creative needs. Autobiographical work allows them to redefine their identities through self-reflection, whereas role-playing provides structured approaches to confronting difficult emotions (Pendzik et al., 2016; Moreno, 1946). Improvisation serves both therapeutic and artistic purposes, transforming one's own struggles into creative material (Boal, 1995). Collaborative processes, like group storytelling, foster resiliency and cohesion, preparing students to handle the emotional demands of their training (Pendzik et al., 2016).

Ethical considerations are critical when incorporating personal narratives into performance. Kandil (2016) emphasises the importance of emotional security and agency, especially for students who are vulnerable during creative processes.

Dynamic narrativity—the transformative power of storytelling to reframe trauma and identity—provides performing arts students with a structured approach to addressing mental health issues related to personal challenges and public scrutiny (Brown, 2021). Although the therapeutic benefits of these methods are widely established, little is known about their pedagogical

potential. There is a gap between the availability of techniques like role-playing and autobiographical storytelling and their actual use in classrooms since students frequently lack the direction they need to use them successfully. This disparity highlights the need for focused instruction and curriculum integration by limiting students' access to narrative techniques for identity formation, creativity, and interpersonal development (Baim, 2017; Kandil, 2016; Radić & Hren, 2022).

Adoption of narrative techniques is further complicated by cultural and ethical considerations. Practices such as self-revelatory theatre, rooted in Western individualist frameworks (Boal, 1995; White & Epston, 1990), may clash with collectivist values in contexts like Malaysia, where communal harmony and emotional restraint are prioritised. Particularly for students juggling their personal vulnerability with the public demands of their craft, ethical safeguards such as confidentiality and stigma mitigation are essential in such settings (Kandil, 2016; Cid-Vega & Brown, 2023; Loong et al., 2024). Techniques like improvisation or collaborative storytelling run the risk of alienating participants or reiterating preexisting barriers to mental health support in the absence of culturally appropriate protocols.

There are still unanswered questions about the particular stressors that distinguish performing arts students from other artistic populations, such as identity confusion and performance anxiety (Macapugay & Nakamura, 2024). Furthermore, little is

known about how narrative techniques are adapted across cultures, especially in non-Western contexts. For instance, autobiographical practices requiring personal disclosure may be difficult for Malaysian students navigating collectivist norms, underscoring the need for approaches that balance cultural expectations with individual expression (Loong et al., 2024). The global applicability of current frameworks is also limited by the lack of research on the effectiveness of role-playing in societies affected by conflict as opposed to stable areas.

Future studies should prioritize performing arts students in Malaysia, focusing on three key areas: (1) how cultural norms shape engagement with techniques like improvisation or psychodrama, (2) strategies to adapt Western-derived methods to collectivist values, and (3) the role of narrative practices in reducing mental health stigma. By addressing these gaps, researchers can develop tailored approaches that empower students to externalize struggles while respecting cultural boundaries—a critical step toward fostering resilience in a high-pressure, public-facing discipline.

In conclusion, despite the promising potential of narrative techniques to help deal with mental health concerns in Performing Arts students, the actual utilisation in different cultural contexts within this group is deeply lacking and that gap is even more evident when it comes to the Malaysian context. By filling these gaps, researchers can contribute to a more inclusive and

contextually relevant framework for supporting mental health through narrative practices in Malaysia.

METHODS

Reflexivity in this paper includes personal characteristics of the primary researcher as a postgraduate counselling student with qualifications in Psychology and Counselling and a strong research background alongside an ardent academic interest in creative arts and mental health. The other co-researchers did not have any direct contact or relationship with the participants except for one of the co-researchers who is a lecturer to the same group of students. However, there was no direct contact between them throughout the research process. Moreover, even though the primary researcher/interviewer did not have any pre-existing relationship with any of the participants, certain commonalities like age range and university affiliation helped facilitate the rapport-building during interviews in addition to the said researcher's counselling knowledge.

All the participants were informed in advance about the researcher's qualifications as well as the purpose of the study before the interviews began. Reflexivity was consistently maintained all through the process by the researcher by keeping record of it and reviewing notes. By reflecting in such ways, the researcher could be more conscious of their standpoint and comprehend emotional responses and identify any potential biases that could impact the interpretation of data. Thus, the risk of subjective bias was reduced, and

transparency was maintained through these efforts (Zainal Abidin et al., 2024).

Study Design

The theoretical framework for this study was informed by a combination of narrative inquiry and phenomenological approaches. The narrative approach was well-suited to understand how performing arts students find and present their account of and meaning about mental health through means of storytelling. Concurrently, the phenomenological lens enabled the researchers to focus on the lived experiences and individual interpretation of participants. Together this framework allowed for a profound and authentic exploration of narrative techniques as both tools for expression and coping mechanisms (Aren & Sambasivan, 2021; Trahar, 2013).

Participant Selection

The study employed a purposive sampling strategy to ensure that the participants met the study's specific objectives. Malaysian performing arts students from the ages eighteen and above, belonging to diverse ethnic backgrounds and from various performance disciplines such as theatre, music, and dance, were invited to take part. All participants needed to have had experience in using narrative techniques to express or cope with mental health challenges, either now or in the past. In total, about twelve participants were selected. They reflected a gender-diverse group which included five female, five male, and two non-binary individuals. The sample included

both undergraduate students in their second, third, and final years, as well as postgraduate students, thus presenting a wide spectrum of academic and life experiences within the performing arts sphere (Shaheen et al., 2018).

Inclusion Criteria

Participants were chosen based on their current enrolment as Malaysian performing arts students, aged eighteen years or older, and especially if they used narrative techniques to explore or cope with mental health issues. Sufficient language proficiency was also a requirement so that they would be able to properly articulate their experiences. Lastly, but most importantly those who were willing to provide their informed consent were included. Cultural sensitivity and respect for personal narrative styles was emphasised all through the recruitment and data collection process

Cultural sensitivity and respect for individual narrative styles was emphasised throughout the recruitment and data collection process. The co-researchers worked together to create the interview guide and ensure that each question was worded carefully to be neutral, inclusive, and unbiased. The questions were open-ended and enabled participants to share their personal experiences in their own terms thereby allowing for a variety of cultural identities and storytelling practices. For example, rather than asking participants to describe specific symptoms of a mental health condition they might have experienced, the questions were framed

to let them reflect about their emotional experiences and how they made sense of them through their creative expression. This approach made for a non-directive, participant-led dialogue that honoured personal expression and minimised the risk of cultural or psychological bias from the interviewer's perspective (Lie-A-Ling et al., 2023).

Setting and Data Collection

Data collection was conducted through semi-structured interviews, which took place either online via Zoom, depending on the participants' preferences. The questions asked from the semi-structured interviews were reflective of the research questions and objectives ensuring that it was accurate to the aim of the study. During each interview session only the interviewer and the participant were present. The guide used for the interview was flexible yet focused where needed to properly explore topics like individual mental health experiences, creative identity, stigma and coping strategies, as well as their respective support systems. The interview duration was from 45-75 minutes and was audio-recorded with the participants' consent. To later perform thematic and narrative analyses, the verbatim transcriptions of the recordings were also produced.

Ethics and Consent

The ethical approval for this study was obtained from the university's ethics review committee. The potential participants were

given the chance to voice any concerns they had before the interviews began. All participants were informed about confidentiality of their information, the voluntary nature of their participation and their right to withdraw from the study at any point. The participants were asked for their written informed consent, and were provided with a participation sheet that details the title of the study, names of researchers involved and the aim of the study. Furthermore, to ensure anonymity, pseudonyms were used for their names in the paper. The participants in need of university counselling services were provided.

Data Analysis

This study employed thematic narrative analysis to evaluate both the structure (how) and content (what) of the narratives that were presented. The analysis involved a structured, iterative process wherein the researcher reviewed the verbatim transcripts for initial open coding. These codes were then grouped into broader thematic categories and patterns were distinguished in narrative arcs and storytelling techniques; utilising phenomenological approach, thematic analysis identified recurring patterns and themes in participant data, offering a more thorough explanation of their experiences. This combined approach allowed the researchers to understand what the participants shared and how they conveyed their experiences to reveal deeper emotional and cognitive insights related to mental health (Braun & Clarke, 2020).

Trustworthiness

The trustworthiness of the study was supported through several strategies. To confirm the accuracy of the interpretation’s member checking was employed with the participants. The researchers also undertook peer debriefing sessions so as to refine the codes and emerging themes. During the whole process an audit trail was consistently maintained to document the researchers’ analytic decisions and coding processes alongside the interviewer’s journaling notes. Triangulation was used across participant narratives that helped to further identify recurring themes and patterns, offering clarity and coherence in understanding their experiences. These strategies have improved the credibility, transparency and overall analytical depth of the research.

Reporting

The results and findings were reported with direct quotations from participants to

demonstrate major themes and emotional tone within their narratives. Each quote was shared with proper context to present the participant’s voice in a clear and comprehensible manner.

RESULTS AND DISCUSSION

Demographics

The age range of the respondents was 20 to 25 years old (see Table 1). The age groupings were distributed as follows: five being female and five being male, with two more identifying as non-binary. This was done to accurately represent the experiences of each gender. The age range was to encompass a wide variety of student life experiences within the performing arts programme and comprised students from their second year, third and final year as well as postgraduates. The respondents wholly comprised performing art students.

Table 1
Demographic table

Participants	Age	Gender	Academic Year (out of 3)
Angela	23	Female	Post-Grad
Shane	22	Male	3
Courtney	25	Female	3
Arasha	21	Female	2
Spencer	20	Male	3
Tommy	21	Male	2
Amanda	21	Female	3
Anthony	25	Male	3
Erin	23	Non-Binary	Post-Grad
Rekha	21	Non-Binary	2
Alex	22	Male	3
Erica	22	Female	2

Results

The findings of this study were categorised into key themes and subthemes that emerged using thematic analysis. Each theme is supported by subthemes and illustrative quotes from the interview that provide insight into the participants' use of narrative techniques.

The first theme discussed narrative techniques, such as writing and performance that serve as vital tools in managing and coping with mental health challenges and links to how these techniques provide a method for both expressing and processing emotions. The second theme elaborated on the difficulties the participants face when deciding what to reveal in their narratives and explores the internal conflict of being open and the fear of judgment or misunderstanding. The third theme explores the participants' use of narrative techniques to help them cope and the aim to raise awareness about mental health struggles. The sharing of their stories inspire hope to foster empathy and challenge societal misconceptions.

Table 2 indicates the first theme of the findings, which is narrative techniques as a coping mechanism for mental health struggles. The first theme found that for most of the participants, narrative techniques came naturally to them and it was difficult to identify a specific narrative technique that they were applying to their struggles. All the participants agreed that writing and performing acted as a form of cathartic release and the narratives created were symbolic of navigating stressors that

emerged in real life and thus representative of their mental health struggles. Based on Subtheme 1 (Writing and Performing as A Form of Cathartic Release). The participants stated that writing, particularly monologues, served as a cathartic process. This allowed the release of pent-up emotions and organisation of thoughts, providing a sense of relief. This manifested in the use of repetition in their narratives to weave scattered thoughts into something more manageable. A similar sentiment was shared by another participant who likened the repetition to increasing intensity that allowed the normalisation of mental health struggles she was facing.

Another participant shared the same point of view of being able to normalise their mental health struggles that emerged from daily interpersonal conflicts through narrative techniques by integrating their experiences into the scripts they wrote. Performance whether through dance or monologues, was another popular form of cathartic release for the participants as it served as an outlet to release emotional tension. This narrative technique allowed the participants to express feelings that are difficult to articulate in words.

The second subtheme (Symbolic Narratives to Navigate Stress) detailed how the participants utilise their narratives to externalise stress and anxiety, creating a symbolic representation of their mental health struggles. This enabled addressing difficult feelings by transforming it into tangible forms such as a monologue or performance piece that could be controlled

and manipulated. One participant likened it to a form of escapism where stress could be channelled. Interestingly, for one participant, this was not the case. She felt pressured for

Table 2
Interview findings on narrative techniques

Theme	Sub-Themes	Quotes
Narrative Techniques as a Coping Mechanism for Mental Health Struggles	Writing and Performing As A Form of Cathartic Release	“...the more that you do it the more that you still feel it, but less likely as how you felt that the first time...and you will find eventually the balance of how you cope with it.” (Shane, 22, 3rd Year Student) “I can build the intensity of the lines when I say that, until it reaches a certain extent, and that could be really cathartic.” (Amanda, 21, 3rd Year Student) “I’ve directed like five different theatre plays and I tried to include like some problem that I have in life...it can be somewhat comical and kind of healing for myself to watch...it minimizes the problem.” (Erin, 23, Post-Graduate). “...one would be dance or more specifically movement...the physicality of it may help express or...have a release...of strong feelings we have inside.” (Spencer, 20, 3rd Year Student).
	Symbolic Narratives to Navigate Stress	“When I get to not restrict myself anymore. Whether it’s like screaming or experiencing a different life. It is like an escape.” (Anthony, 25, 3rd Year Student). “...after I joined the rehearsal, I couldn’t get what the director wants...what the actors want... After rehearsal, I just go somewhere like a park, and then I just cry it out.” (Courtney, 25, 3rd Year Student).

trying to perform exactly how she intended and this added to her stress instead. The narrative involved taking from a personal experience of a tumultuous breakup. This increased the difficulty of expressing herself.

In conclusion, this theme emphasises how crucial narrative strategies like writing and performances are for handling mental health struggles. Writing, particularly monologues, offers a cathartic release and aids in mental organisation, which is relieving. An outlet for emotional strain, performance which includes dance and monologues, allows for the expression of feelings that are difficult to convey through words. These techniques allow the participants to externalise stress and worry and transform their mental health struggles into manageable physical forms. All things considered, narrative strategies work well for processing and managing challenging emotions.

Table 3 indicates the second theme of the findings, The Challenges of Vulnerability and Boundaries in Expressing Mental Health. The second theme found that the participants detail their fear of being misunderstood, the need to set personal boundaries when expressing themselves through narrative techniques, and to protect their mental health by distancing themselves from the narratives. This theme examined the difficulties they may face when enacting said distance.

Based on Subtheme 1 (Navigating the Fear of Misunderstanding), the participants expressed concern that others may misinterpret their mental health struggles,

particularly when their external appearance contradicts their internal experiences. This fear leads to hesitation in fully sharing their emotional world through narrative techniques. One such participant noted that they presented a jovial personality but contradicted the narratives used to express themselves.

Interestingly, one participant did not share the same sentiment. The ability to change his appearance and his acting for a play by employing narrative techniques enabled him to chase his ideal image of what he wished to be in high school. He detailed the ease and fluidity of assuming different roles that helped him discover himself.

Based on Subtheme 2 (Setting Personal Boundaries), this subtheme detailed the existing struggle between wanting to share deeply personal feelings through their narrative techniques and maintaining boundaries to protect themselves from overexposure. This overexposure caused a sensation of overwhelming and threatened non-personalisation of their narratives.

Most participants discussed taboos of broaching topics that would seem sensitive to others needing increased research and preparation. One participant echoed this sentiment. They mentioned about the importance of being educated on the topic and the difficulty of walking the fine line for sensitive topics such as rape.

Personal boundaries of not presenting too much started to become important, especially when the topics concerned themselves personally. One participant explored their personal experience with

Table 3
Interview findings on challenges of vulnerability and boundaries in expressing mental health

Theme	Sub-Themes	Quotes
The Challenges of Vulnerability and Boundaries in Expressing Mental Health	Navigating the Fear of Misunderstanding	<i>"I feel like me talking about my mental health when my personality I would say is very bubbly...I think that is...a big hole for people."</i> (Rekha, 21, 2nd Year Student). <i>"I would use appearances...it really showed me how I felt of my high school self...it just helped you realise more of myself."</i> (Tommy, 21, 2nd Year Student).
	Setting Personal Boundaries	<i>You have to be educated in those topics...it's a very fine line cause I feel like there's a way to do it respectfully. for example like, rape."</i> (Angela, 23, Post-Graduate). <i>"talking about a personal experience...showing depression and anxiety...depends which part of my life story...I am actually trying to relate that to. I am a bit personal in that sense."</i> (Arasha, 21, 2nd Year Student). <i>"I'm fine with showing what's racism like. In many narratives...I have been through that and I still go through that. I think they all are fair game for me to tackle."</i> (Alex, 22, 3rd Year Student).
	Self-Protective Distance in Narratives	<i>"it's sort of a balancing act...there always has to be the separation of the character and yourself...because if not...where does the character end and where do you begin?"</i> (Spencer, 20, 3rd Year Student). <i>"We have a safe space into telling our stories and being protected. Our feelings are being protected."</i> (Alex, 22, 3rd Year Student). <i>"suddenly you're sat at the corner of your bed, staring at the wall, like, oh my God, that's heavy."</i> (Erin, 23, Post-Graduate).

depression and anxiety in which they are diagnosed for, feeling that it is increasingly difficult to be open on stage as these struggles are personal to them.

Interestingly, this sentiment was not shared by one participant who experienced

racism and prejudice. Approaching these taboo topics allowed him to express himself. He mentioned that experiencing it daily made it fair for him to tackle in his narratives.

Subtheme 3 (Self-Protective Distance in Narratives) explores the need of the

participants to protect their emotional well-being by creating a degree of separation between their real experiences and what they portray in their writing or performance.

One participant stressed the importance of separation as getting into a specific character's headspace in their performance or narratives can be damaging to self-identity. The participant felt that not distancing himself from a role invited a blending of self-identity issues and relatability that could be dangerous for one's mental health.

Another participant discussed how the distance also comes from a professional setting. Feelings being protected meant that he can fully embody his narratives. He felt that the safe space that the crew enabled through their professionalism on set or on the stage protected his feelings when he performed.

Conversely, one participant finds it difficult to distance themselves from their character as their narratives consist of their personal mental health struggles and this can affect them deeply after performing. They mentioned isolating themselves and ruminating that the role weighed on them.

In conclusion, the participants' narratives demonstrate their difficulty disclosing themselves while striking a balance between openness and fear of judgement. They are reluctant to completely disclose because they fear that their mental health struggles will be misunderstood. They uphold boundaries and keep their actual experiences apart from their public image in order to protect themselves. They

can manage their mental health and safely communicate their struggles with this method.

Table 4 indicates the third theme of the findings, Narrative Techniques as a platform to Raise Awareness and Foster Empathy. This theme examined how the participants aimed to raise awareness about mental health struggles. This manifested through developing empathy through sharing of experiences, challenging social stigmas and empowerment by being vulnerable.

Based on Subtheme 1 (Building Empathy Through Shared Experiences), the participants believe that their narratives create an opportunity for others to connect with their own struggles, allowing for greater empathy and understanding of mental health issues. Many participants believed that by showcasing their mental health struggles on stage, they would be able to help others who were going through the same difficulties thereby creating relatability and encouraging discussion.

One participant detailed her experience writing her rendition of *Romeo and Juliet*. Audience members looked for the actors after the performance and she found this touching. The sight of seeing audience members younger than her crying and approaching them in relatability was significant.

Another participant echoed this sentiment as the narratives of their mental health struggles invited discussion of surface presentation of emotions. They felt that their narrative helped their audience realise that mental health is not only outwardly shown but internally as well.

Table 4
Interview findings on raise awareness and foster empathy

Theme	Sub-Themes	Quotes
Narrative Techniques as a platform to Raise Awareness and Foster Empathy	Building Empathy Through Shared Experiences	<i>“And I remember seeing little girls crying feeling touched and then they wanted to come and say hi to my friend that acted as Romeo and to the girl that played my Juliet.” (Angela, 23, Post-Graduate).</i> <i>“It helps people understand... mental health, because it’s not just about what they see on the outside.” (Rekha, 21, 2nd Year Student).</i> <i>“it can be quite painful for the audience to watch. So I think it’s a very flexible line. It’s like you’re trying to give your audience entertainment, but they end up being traumatised.” (Erica, 22, 2nd Year Student).</i>
	Challenging Societal Stigmas Around Mental Health	<i>“...I find easier to express through narratives is all the internal thoughts going in my head...what I want to say to my past self... what I’m feeling right now.” (Tommy, 21, 2nd Year Student.)</i> <i>“...obviously the LGBTQ presence in this country is not the best. I was hoping maybe it could be something that could inspire discussion.” (Erin, 23, Post-Graduate).</i>
	Empowering Others Through Vulnerability	<i>“Telling my own story and it kind of affects me...makes me embarrassed, because... public audience won’t know that it’s my story. I myself know I’m telling my story and some of my friends.” (Courtney, 25, 3rd Year Student).</i> <i>I’m not as confident in my narratives...it’s more linked to myself. I can definitely see some people...seeing the bigger picture...I don’t really have a message to give to the audience. I just want to show them a good time. (Tommy, 21, 2nd Year Student).</i>

One participant did not share this sentiment. She found it difficult to balance building empathy through shared experiences out of fear of making her narratives too relatable and therefore too realistic. The fear stems from trying to entertain her audience but in turn, traumatising them instead.

Subtheme 2 (Challenging Societal Stigmas Around Mental Health), explores the participants seeking to challenge the stigma that surrounds mental health struggles being only visible through extreme behaviours or outward signs through their narratives. They want to show that internal struggles are just as valid and significant.

A participant explained how creative narratives of how he sees himself allowed him to be more honest with his feelings. He found it easier to express his mental health through internal thoughts in his head. He related it to what he wanted to say to his past self and to what he is feeling at the moment.

There were parallels in another participant who spoke passionately about their experiences of being part of the LGBTQIA+ community and using that experience to challenge societal stigmas of mental health challenges. They felt that the LGBTQ presence in the country is rocky and that their narratives could inspire discussion about the topic.

Based on Subtheme 3 (Empowering Others Through Vulnerability), this subtheme sees the participants detailing their ability to share their mental health struggles through narratives by acting as a form of empowerment.

One participant discussed the difficulty of being vulnerable and the challenge of being overwhelmed at the same time. She believes that being open and accepting the self-consciousness that comes from subjecting oneself to an audience helps others do the same. The telling of a personal story through narrative techniques affected her as it caused feelings of embarrassment that the general audience would not understand where she was coming from and only her friends and family would.

Conversely, one participant does not believe in passing on a message in his narratives. He felt he was not as confident in his narratives as the others in his cohort and

found his narratives to be deeply personal. As such, while he acknowledges that some audiences will see the bigger picture, he only wanted to entertain his audience instead of inspiring any sort of discussion.

In conclusion, the participants raise awareness and manage mental health issues by using narrative techniques. They tell their stories and hope to dispel social stereotypes, promote empathy, and show that internal conflicts are real. The hope of empowering others to open out and seek assistance encourages most participants to see their narrative as fostering more understanding and to formulate a more compassionate attitude toward mental health concerns.

The findings reported in the results show that narrative techniques used in performing arts are highly effective for performing art students to express themselves and inspire others to do the same. It is an important tool in understanding one's mental health.

DISCUSSION

The discussion parts emphasised the performing arts students' perception of their narrative practices in relation to mental health perspectives.

Narrative Techniques as Coping Mechanisms for Mental Health Struggles

The participants acknowledged that narrative techniques were cathartic. Through writing and performing, emotions are compartmentalised, providing a form of relief and clarity. As Shukla et al., (2022) states, "Art therapy, including narrative

techniques, provides a structured avenue for emotional regulation and psychological relief.” The repetitive nature of the exercise of sharing the narrative normalised the experience, creating a sense of control over the struggles. This is evident in the sharing of Shane and Amanda who shared that the narrative technique allowed them to process and structure their experience, helping them to release. In his seminal article, psychologist Pennebaker (1997) explains that when individuals confront and express deeply personal issues, the process, though often emotionally painful, can initiate healing by fostering physical health, enhancing subjective well-being, and encouraging adaptive behaviours.

Performance forms like theatre and dance, which are considered embodied forms of narrative technique, allowed participants who were more comfortable expressing in nonverbal mediums. Erin and Spencer for example explained how physical movement allowed them to externalize internal conflicts. It allowed them to express and release pent up emotions and provided an avenue to create meaningful works. Externalising emotions and memories render them more tangible, enabling individuals to examine their experiences from a new perspective. As Kearney (2007) observes, “One of the most enduring functions of narrative is catharsis. By telling our stories of suffering, we give shape to pain, we make it intelligible, and in doing so, we often find a measure of relief.” Rekha reflects on how audience perceptions of mental health shift when they witness performers externalizing

their internal struggles: “It helps people understand... mental health, because it’s not just about what they see on the outside” (Rekha, 21, 2nd-year student).

Golden et al., (2024) reiterates this statement while supporting youth mental health with arts-based strategies regarding art’s ability to support mental health, and calls for action to undertake critical research and its translation into accessible community practices.

Symbolic narratives helped participants deal with stress by allowing them to express their struggles through creative storytelling. This process enabled them to face and manage their emotions indirectly. Anthony described creating narratives to escape, showing how these methods can offer temporary relief and a new way of looking at real-life challenges. Courtney’s experience, however, showed that the results can vary. Her difficulty matching her narrative goals with her performance goals increased her stress, suggesting that the success of these methods may depend on personal factors and specific situations. White and Epston (1990) argue that “Narratives are most effective when aligned with individual circumstances and emotional readiness.”

Participants highlighted that their narratives allowed audiences to connect emotionally with their struggles, fostering empathy and awareness of mental health issues. Sharing personal experiences encouraged audiences to reflect on their own challenges, creating a sense of relatability. For example, Angela’s reinterpretation of *Romeo and Juliet* moved young audience

members to tears and prompted them to engage with the performers, demonstrating how narratives can forge meaningful emotional connections. Rekha emphasised the importance of addressing the gap between external appearances and internal struggles, showing that mental health issues are not always visible and encouraging audiences to think beyond surface-level judgments. This is congruent with the CBT framework as expressive storytelling allowed the participant to reflect on their life stories and the impact it had on their mental health on a deeper level. These shared experiences not only promote empathy but also spark discussions that can lead to greater understanding and reduced stigma. Balancing relatability with audience comfort remains a challenge.

Challenges of Vulnerability and Boundaries in Expressing Mental Health

Although narrative techniques provide therapeutic benefits, they can pose challenges connected to vulnerability and boundaries. When sharing personal experiences, participants expressed that they fear being misunderstood or judged. Rekha's concern about the discrepancy between her outwardly bubbly personality and the depth of her internal struggles illustrates how societal perceptions can inhibit open expression. Laukkanen et al., (2021) explain that "The ethical considerations in narrative practices require environments that support authenticity without compromising personal boundaries." This fear highlights the need

for creating supportive environments where individuals feel safe to disclose their emotions without fear of stigma.

This research also revealed the fine balance participants must strike between authenticity and self-protection. Setting personal boundaries emerged as a critical strategy for maintaining emotional well-being. Angela's emphasis on the importance of respecting sensitive topics like rape reflects the ethical and emotional considerations involved in narrative creation. Similarly, Arasha's hesitancy to fully share personal experiences related to depression and anxiety demonstrates the tension between the desire for openness and the need for privacy. This highlights the affinity for negative thought patterns and cognitive dissonance to develop causing conflicting emotions as well as behaviour.

Her reluctance to fully express herself reflects a cultural norm that discourages the open verbalisation of personal struggles. This poses a significant challenge to narrative writing efforts, highlighting the need to first address underlying cultural factors (Pennebaker & Chung, 2011).

Some participants found empowerment in addressing challenging topics, with Alex demonstrating how experiences of injustice can inspire purpose and advocacy through narratives, suggesting that storytelling can foster personal healing and social change. However, the concept of self-protective distance reveals the emotional challenges of narrative engagement; while Spencer emphasised the need to separate oneself from characters to prevent identity

conflicts and exhaustion, Erin's struggles with detachment from personal narratives highlight the psychological risks of merging lived experiences with performative storytelling. Lysaker et al. (2003) note that "Narrative transformation can lead to increased coherence in self-identity, which is crucial for individuals with mental health challenges."

Narrative Techniques to Raise Awareness and Foster Empathy

The participants' experience underscore how narrative techniques raise strong emotional responses, and promote a deeper sense of empathy. Angela shared how she felt touched during the narrative practice, indicating a personal connection to the narrative exercise. In addition, Rekha noted that narrative techniques enable a better comprehension of mental health. From the perspective of the audience, Erica discovered the narrative exercise could be painful, reflecting how witnessing vulnerability in a narrative can establish empathy. These observations support Shukla et al. (2022), who argue that "creative arts provide a lens for better comprehending others' emotional landscapes," confirming that engaging with personal stories helps individuals step into others' experiences and feel a stronger emotional connection. Similarly, Wood et al., (2019) reported that drama-based narrative interventions significantly enhanced empathy levels in participants by immersing them in emotional experiences, particularly when those experiences reflected vulnerability and

authenticity. This supports the Malaysian participants' observations, indicating a universal function of narrative arts in fostering emotional connection.

The narrative techniques also emphasised challenging societal stigma on mental health. Through narrative techniques, participants were able to express their internal thoughts, which can be useful in highlighting societal stigma. The sharing of stories allowed participants to express thoughts and feelings often hidden under social expectations. For instance, Tommy acknowledged that the storytelling process allowed him to articulate internal struggles that usually remain unspoken in Malaysian society. Erin expressed a desire to discuss sensitive topics, such as LGBTQ+ issues. She hoped narrative practice could be a medium for raising awareness and promoting acceptance. These responses align with Nurser et al. (2018), who note that "personal storytelling in mental health recovery can be a highly meaningful experience and an important part of the individual's recovery journey." However, as Ng et al., (2020) highlight in a Southeast Asian context, cultural norms often discourage open emotional disclosure due to shame and family honour. Despite this, the Malaysian participants in this study embraced narrative practice to subvert these norms, using storytelling as a tool for social dialogue and visibility. Together, the findings suggest that narrative exercises provide space for self-expression and facilitate open discussion of stigmatised issues in the Malaysian context.

Another important theme was empowerment through vulnerability.

Courtney reported being deeply affected by expressing her story, which underscores the cathartic effect of narrative techniques. Meanwhile, Tommy expressed a lack of confidence in his narrative. He just intended to perform an engaging experience for the audiences to reflect a meaningful experience to connect and inspire others. This contrast illustrates how vulnerability can both empower the storyteller and connect with others. In sum, these storytelling experiences appeared to reinforce transformative processes within the creative arts setting. This mirrors McLeod's (2015) argument that storytelling functions as both a therapeutic and communal process, allowing individuals not only to process trauma but also to build relational empathy and solidarity. The participants' dual experiences of self-doubt and transformation echo this layered dynamic. The study's findings point to practical implications for the Malaysian performing arts community: incorporating narrative storytelling into arts education could promote emotional growth, empathy, and healing among students.

CONCLUSION

This study was conducted to explore the adaptability of narrative techniques on mental health. A total of 12 performing arts students participated through semi-structured interviews. The findings indicated three primary themes emerged, categorised as narrative techniques as a coping mechanism for mental health struggles, the challenges of vulnerability and boundaries in expressing mental health, and narrative

techniques as a platform to raise awareness and foster empathy. The findings were aligned with the principles of Cognitive Behavioural Therapy (CBT) which support the notion that cognitive perspectives influenced reflective storytelling. Therefore, narrative techniques can be applied for emotional expression. In conclusion, this study provides valuable contributions on how narrative techniques can be applied within mental health support, particularly in the performing arts context. Future research could further assess the effectiveness of narrative techniques in diverse settings, providing a broader insight of mental health interventions. Such research would not only enhance the principles understanding of narrative techniques but also offer practical interventions to align the unique needs of various settings.

Implications of the Study

The findings suggested that combining narrative techniques into performing arts can be an effective approach to addressing mental health concerns. These techniques give a unique and efficient way of raising awareness and creating empathy by improving coping mechanisms and recognising the difficulties associated with expressing mental health. This promotes emotional resilience among individuals. Students can explore and explain their own experiences and feelings in a supportive and creative atmosphere by engaging in narrative activities.

This process helps students understand and manage their mental health and also

fosters a sense of community and mutual understanding among peers. According to Agres and Chen (2024), "Integrating narrative practices into educational frameworks can profoundly impact emotional and psychological resilience", emphasising the methods' enormous potential to improve students' well-being and mental health.

Limitations and Recommendations for Future Research

It is important to highlight that the study was limited to performing arts students and did not include veteran actors or persons who were already established in the profession. The conclusions are based on each participant's individual expressions and experiences, rendering them inapplicable to a larger group. This means that, while the findings are enlightening, they cannot be generalised uniformly to diverse groups in the performing arts or elsewhere.

To improve and expand on this research, future studies should investigate the long-term effects of narrative techniques with a more diverse set of participants, including individuals with substantial performing arts experience. Furthermore, incorporating training modules for trainers may enhance the therapeutic impacts of these practices by ensuring that facilitators are well-equipped to guide participants effectively. White and Epston (1990) state that "narrative practices applied within the performing arts represent a compelling avenue for emotional expression and social change," emphasising the importance of expanding this research to understand its broader impact and potential

for fostering emotional and psychological resilience across various contexts.

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Classical Malay Populism: The Case of Muhammad Sanusi

Shah Mohd Akmal Abdul Halim^{1*} and Muhamad Takiyuddin Ismail²

¹*Institute of Ethnic Studies, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia*

²*Research Centre for History, Politics and International Affairs, Faculty of Social Sciences and Humanities, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia*

ABSTRACT

This article examines the populism of Muhammad Sanusi Md. Nor and its implications for Malaysia's political dynamics during the 2023 state elections. It pursues three objectives: first, to situate populism as a political strategy in Southeast Asian and Malaysian contexts; second, to conceptualise the Malay populist, or what may be described as a "classical Malay populist," through an analysis of Sanusi's political behaviour; and third, to evaluate the impact of his strategies on electoral outcomes in Kedah and Penang. The study adopts a qualitative case study design, combining field observations during the 2023 campaign period in Sik, Gurun, and Seberang Perai with one in-depth interview and supplementary informal conversations with voters and party members across multiple parties. These primary data were triangulated with secondary materials and analysed through discourse analysis, focussing on rhetorical, symbolic, and performative elements. The findings indicate that Sanusi's populism, expressed through his *anak kampung* (rural son) persona, anti-elitist rhetoric, and symbolic gestures amplified by digital platforms such as TikTok, reshaped political narratives and alliances, enabling PN to achieve a historic victory in Kedah while strengthening its presence in Penang's Malay-majority districts.

Keywords: 2023 states election, Malaysian politics, Muhammad Sanusi, Perikatan Nasional, populism

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E-mail addresses:

shahmohdakmal@gmail.com (Shah Mohd Akmal Abdul Halim)

taki@ukm.edu.my (Muhamad Takiyuddin Ismail)

*Corresponding author

INTRODUCTION

Since the early 2000s, Southeast Asia has experienced a notable resurgence of populist politics, mirroring broader global patterns of political realignment. This development is exemplified in the region by leaders such as Thaksin Shinawatra in Thailand (Hewison, 2017), Rodrigo Duterte in the Philippines (Thompson, 2021), Joko

Widodo in Indonesia (Mietzner, 2015), and his successor, Prabowo Subianto (Yilmaz et al., 2024). These leaders have distinguished themselves through their ability to resonate with the masses, often employing rhetoric that frames political discourse as a dichotomy between the “common people” and the “elite.” The term “populism” itself has become a focal point of scholarly debate, often employed to describe the political strategies and narratives these leaders adopt to consolidate support. Populist leaders typically portray themselves as outsiders to traditional power structures, advocating for the marginalised majority while vilifying entrenched elites as obstacles to justice and equity. In the Southeast Asian context, this approach has proven particularly potent, as deep-seated inequalities, economic disenfranchisement, and historical grievances create fertile ground for such narratives.

Within Malaysia, populism is a relatively understudied phenomenon, often overshadowed by analyses of ethnic politics and systemic power dynamics. However, the 2023 state elections have thrust populism into the spotlight, particularly through the rise of Muhammad Sanusi Md. Nor, the Menteri Besar of Kedah. The 2023 Malaysia State Election stands as a pivotal event in the nation’s political history, marked by the ascendancy of Perikatan Nasional (PN) and the notable influence of Muhammad Sanusi’s populist appeal. This election not only reflected the electorate’s sentiments but also underscored the complex interplay between leadership personas and political

success. The victory of PN, particularly in the states of Kedah, Kelantan, and Terengganu, and its significant inroads into traditionally opposition-held territories such as Selangor and Penang, signal a shift in the political landscape, with implications for the balance of power and the future of governance in Malaysia. The phenomenon of Sanusi’s populism, characterised by his direct and confrontational style, has been a defining factor in the election. His ability to resonate with the Malay-Muslim majority, coupled with his image as an anti-establishment figure, has contributed to the consolidation of PN’s support base.

This research explores the “Sanusi factor” and its influence on electoral outcomes by examining how his populist rhetoric and the strategic juxtaposition of his persona against the political establishment contributed significantly to PN’s electoral gains. Specifically, the article pursues three objectives: first, to provide an overview of populism as a political strategy within the Southeast Asian and Malaysian contexts; second, to conceptualise the Malay populist, or what may be described as a “classical Malay populist,” through an analysis of Muhammad Sanusi’s political behaviour; and third, to evaluate the impact of Sanusi’s populist strategies on the 2023 state elections, particularly in shaping PN’s electoral gains in Kedah and Penang.

LITERATURE REVIEW

Populism, frequently invoked in political discourse, has been the subject of extensive scholarly debate. Webber (2023) highlights

populism's contrast between rule by the people and rule by corrupt elites, emphasising its multifaceted nature. This view is echoed in critiques that see populism as a strategy where a personalistic leader gains power through direct, unmediated support from large segments of the population. Mudde and Kaltwasser (2017) describe populism as a thin-cantered ideology, dividing society into 'the pure people' and 'the corrupt elite,' highlighting the populist claim that politics should reflect the general will of the people. Laclau (2005) suggests that populism functions as a political logic, aggregating diverse social demands that institutional politics fails to address, thus constructing a collective identity. Ardit (2007) presents populism as the 'shadow of democracy,' suggesting that it thrives in the gaps of democratic systems by catalysing engagement but also challenges democratic norms by undermining institutional mediations. Müller (2016) views populism as exclusionary, with populists asserting themselves as the sole legitimate representatives of the people, undermining democratic pluralism. Plagemann and Ufen (2017) highlight that populism often claims to speak on behalf of a morally pure people against a corrupt elite, with populists despising intermediary institutions such as courts, parliaments, and mainstream media.

Populism manifests on both the right and left of the political spectrum, though its expressions differ. Right-wing populists, seen in figures like Donald Trump and Marine Le Pen, focus on nativism and

authoritarianism (Inglehart & Norris, 2016). Left-wing populists, such as Bernie Sanders and Syriza in Greece, emphasize social justice and anti-capitalism (Stavrakakis & Katsambekis, 2014). However, this left-right framework often fails to capture the nuanced forms of populism that emerge globally. For instance, Joko Widodo's "polite populism" and Prabowo Subianto's "fluctuating populism" in Indonesia (Mietzner, 2014; Yilmaz et al., 2024) reflect distinct styles of populism tailored to their political environments. Similarly, Volodymyr Zelenskyy's "technocratic populism" in Ukraine (Viedrov, 2023) combines populism with a focus on technical expertise and pragmatic governance. In the Philippines, Duterte's presidency has been described as "violent populism," marked by strongman tactics and authoritarian discourse (Thompson, 2021). Demuru (2021) introduces "gastropopulism," describing populist strategies employed by Matteo Salvini and Jair Bolsonaro, who use social media to share images of food to connect with voters on a personal and cultural level.

Globally, populism varies across cultural and institutional contexts. In Malaysia, populism interacts with structural, ideological, and ethno-religious factors unique to the country's sociopolitical environment. Weiss (2020) critiques Malaysia's political landscape, noting its ethnic exclusivity, economic disparity, and hybrid regime features, which share traits with populist systems. However, she argues that Malaysia lacks the ideological coherence

and mobilisation typical of populism. Weiss suggests that personalisation of politics and illiberal tendencies are more prominent than populism in Malaysia's politics.

Shah (2019) analyses the 2018 general election, viewing it as a pivotal moment where populist rhetoric intersected with moral and inclusive claims to counter ethno-nationalist narratives. Economic justice emerged as a counter-narrative in a polarised political environment. Halim and Azhari (2020) examine ethno-religious identity in Malaysian populism, particularly how opposition parties like UMNO and PAS leveraged Malay-Muslim identity politics to address concerns about economic instability and cultural threats during the 2018 political realignments. Their study demonstrates how identity politics, in combination with populist strategies, fractured Malaysia's diverse society for political gain. Gonzales (2023) situates Malaysian populism within regional trends in Southeast Asia, particularly during the COVID-19 pandemic. He argues that Malaysian leaders used Islamist populism and ethnonationalist rhetoric to consolidate power, showing how populist movements adapt during crises. This analysis emphasises how structural and societal instability can facilitate populist narratives in Malaysia.

Shukri (2024) provides one of the most detailed comparative accounts of Malaysian populism, tracing its varied expressions across leaders. Mahathir Mohamad is framed through authoritarian and exclusionary populism; Hadi Awang through Islamist and anti-elite appeals; Muhyiddin Yassin

through an intensified ethnonationalism after his loss of federal power; Najib Razak through soft economic populism undermined by corruption; and Anwar Ibrahim through inclusionary populism that later gave way to pragmatism in office. More recently, she identifies Sanusi Md Nor and Akmal Saleh as part of a new generation of Malay populists, with Sanusi standing out for PAS's ability to integrate ethnonationalist and Islamist strands more effectively than UMNO.

While these insights underscore the diversity of Malaysian populism, the emphasis remains on ethnocultural and identity-based appeals. Less attention has been given to how populism may also be examined through classical strategies adapted into new forms, such as symbolic gestures, rural authenticity, and anti-elitist narratives, and how these elements shaped electoral outcomes. This study addresses that gap by analysing the 2023 state elections in Kedah and Penang, thereby contributing to the broader scope of populism research in Malaysia.

METHODS

This study employs a qualitative case study design, using both primary and secondary data. Primary data were collected through field observation and in-depth interviews. Fieldwork was conducted during the 2023 state election campaign, from 9 to 11 August, in selected constituencies across Kedah and Penang, including Sik, Gurun, and Seberang Perai. During this period, campaign rallies, candidate walkabouts, and political rallies

(*ceramah*) were observed. The purpose was to examine whether Sanusi's influence was applied in campaign practices and voter engagement. Sik was chosen as the focal point because it is Sanusi's political base and provides a lens to understand local perceptions of his leadership and rhetoric.

In-depth interviews supported the observations. The main interview was with Muhammad Fahmi Mohd Raffi, a political science graduate and *anak jati* (native) of Sik. He has closely followed Sanusi's career and observed local political developments, providing contextually informed insights. Supplementary informal conversational interviews were conducted with local voters in Sik, Gurun, and Seberang Perai, as well as with political party members from UMNO, PAS, BERSATU, PKR, and DAP. This approach broadened the scope of perspectives by incorporating both grassroots voices and partisan viewpoints.

Secondary data were gathered from scholarly literature, dissertations, reports, and media sources such as online news outlets, social media, webinars, and political videos. These materials provided theoretical context and placed the field evidence within broader debates on populism and electoral politics. Data were analysed through discourse analysis. The analysis focussed on rhetorical, symbolic, and performative elements in campaign practices and interview accounts. Attention was given to recurring motifs such as the *anak kampung* (a rural son) identity, anti-elitist rhetoric, and symbolic gestures of accessibility. Triangulation across

interviews, observations, and documents enhanced credibility. The inclusion of multiple perspectives reduced bias and strengthened validity.

RESULTS AND DISCUSSION

Muhammad Sanusi and the 'Anak Kampung' Character

"[To understand the poor, you have to experience poverty. Like me, I understand (the struggles of the poor). My father had 13 children and did all kinds of work, including climbing petai trees, tapping rubber, building houses, doing clearing work for wages, fishing—my father did everything. So I know what poverty is]" (Muhammad Sanusi, 2023).

In examining how Sanusi's contemporary political behaviour has been shaped, it is necessary to situate his background within broader structural conditions. Born in Sik, Kedah, he grew up in a state defined by a predominantly agricultural economy and slow industrialisation. His early life illustrates the structural inequalities and economic vulnerabilities faced by Malaysia's rural precariat. Raised in a large working-class household, he experienced financial hardship from an early age. His father's irregular employment provided little stability, while economic pressures required early entry into the informal labor market. School holidays were spent as a deckhand on an anchovy boat in Taman Intan, Sungai Petani, earning RM7 per day. Later, he worked in the construction

sector in Tanah Liat, where income security depended on project availability. His commute on foot along railway tracks and daily responsibilities—mixing cement, carrying bricks, and transporting materials—highlight the precarious nature of such work. On Sundays, he assisted his employer in procuring and packaging sportswear for multinational brands such as Reebok. Financial hardship disrupted his education, at one point delaying his return to school to support his family. Financial challenges compelled him to temporarily halt schooling; nevertheless, Sanusi returned, managing simultaneously to complete secondary education and earn income from selling fried chicken at night markets well into early morning hours (Muhammad Sanusi Official Facebook, 2021).

These experiences of precarious labour shaped his worldview and embedded an acute awareness of economic vulnerability and structural inequality. Years spent in fishing, construction, and small-scale entrepreneurship generated resilience but also revealed the limitations of social mobility for Malaysia's rural working class. Economic hardship was not abstract but experienced directly, and this informed his perspectives on governance, justice, and development. His political engagement therefore developed within the lived struggles of the working-class precariat.

Sanusi's later political persona has drawn extensively from this background. His identification as an *anak kampung* (rural son) operates as a populist resource, functioning less as a constructed image

than as an articulation of lived experience. Sanusi's populist appeal stemmed from his ability to embody the values and experiences of the rural *marhaen* (ordinary working-class people). In contrast to political figures who emphasize technocratic expertise or *agamawan* (religious figure), he relied on accessibility and cultural familiarity as key elements of his public image. Symbolic practices—such as sitting cross-legged on the floor, driving lorries, or operating backhoes—communicated proximity to everyday life. The use of northern Malay dialect (*loghat Utara*) reinforced this rural identification (Muhammad Fahmi, 2023). These gestures highlighted his image as closely connected to ordinary Malays and, at the same time, functioned as populist devices that framed his alignment with grassroots identities.

The political utility of this approach was evident in its capacity to embed populist narratives within cultural symbols. Actions such as playing football with youths or visiting households after Tarawih prayers (night prayers performed during Ramadan), were interpreted as markers of solidarity and familiarity rather than as elitist performance. The *anak kampung* persona thus became central to a discourse of shared experience and collective struggle. Such practices exemplify how populist leaders mobilise cultural identity and local values to construct proximity to “the people.”

Sanusi's engagement with the everyday practices of rural communities reflects a recognisable populist strategy that positions leaders as aligned with the people, particularly the marginalised majority. His

association with the values and cultural identity of rural Malaysians contributed to the construction of an image rooted in local authenticity. Symbolic gestures extended beyond staged appearances and were perceived as part of a consistent public demeanour. This approach resonated with grassroots audiences. His communication style, marked by the northern Malay *cakap lepas* manner (blunt speech), further reinforced perceptions of authenticity. While critics regarded it as unrefined or unprofessional, supporters interpreted it as a defining element of relatability. Even casual actions, such as playfully tapping a woman's head during a public event (Ezreen, 2023), were framed as expressions of his kampung identity.

Sanusi's willingness to engage in the everyday practices of rural communities reflects a classic populist strategy, presenting leaders as aligned with the people, particularly the marginalised majority. By aligning himself with the values and cultural identity of rural Malaysians, he constructed an image rooted in local authenticity. This positioned him as the antithesis of urban-centric elites and federal authorities, often portrayed as detached and neglectful of rural needs. This alignment resonates with the populist narrative of "the people" versus "the elite," a hallmark of populism as described by Mudde and Kaltwasser (2017). Such actions fit the populist strategy of employing symbolic, culturally resonant gestures to emphasise shared identity and solidarity with the grassroots (Laclau, 2005). Sanusi's populist approach allowed

him to forge deep connections with rural communities, presenting himself as a true representative of their struggles and aspirations. Positioning himself as one of "the people," he successfully built a robust support base. His relatable lived experiences and unassuming demeanour stood in stark contrast to the perceived elitism of his political opponents, amplifying his appeal among grassroots voters.

Beyond rural communities, digital platforms extended the reach of Sanusi's populist strategies. Facebook and TikTok operated as central arenas for disseminating and reinterpreting his symbols beyond Kedah's kampung context. By January 2025, his TikTok account recorded more than 1.1 million followers, surpassing Prime Minister Anwar Ibrahim's 964,300. His Facebook page also served as a site for autobiographical storytelling. It featured accounts of economic hardship and precarious labour during his youth, reinforcing his identification with ordinary Malays. This pattern recalls Demuru's (2021) notion of "gastropopulism." Leaders such as Matteo Salvini and Jair Bolsonaro used culturally resonant social media content to construct proximity with voters. In a parallel way, Sanusi employed digital platforms through narratives of past struggles on Facebook and portrayals of rural practices on TikTok. According to a police officer familiar with the Kedah state election campaign, much of this content circulated through the voluntary actions of supporters rather than direct coordination. These practices illustrate how online engagement

operated as symbolic resources, translating cultural familiarity into a digitally mediated form of populist proximity.

The Rise of Sanusi's Populism

Muhammad Sanusi's populism began to solidify when he assumed the role of Menteri Besar Kedah in May 2020. This position enabled him to strengthen his connection with the grass root while shaping a persona that deeply resonated with ordinary Malays. Sanusi's engagement with football offered a compelling narrative that intertwined his persona with the broader cultural fabric of Kedah. Football, often regarded as a unifying force in Malaysia, provided Sanusi with an avenue to project himself as a relatable and multi-dimensional leader. By participating in matches and engaging with the sport publicly, Sanusi effectively utilised football to break down traditional barriers between political elites and the public, reinforcing his image as "one of us". His skills on the pitch, showcased in a widely circulated video of him performing a bicycle kick during a friendly match, became a talking point that transcended politics. During the 2023 state election, Sanusi strategically incorporated football into his campaign activities, participating in a match at Felda Teloi Timur to merge political messaging with community engagement (Zakaraya, 2023). He also extended this approach to candidate selection by fielding former football players Muhammad Radhi Mat Din and Baddrol Bakhtiar as candidates for Alor Mengkudu and Gurun, respectively.

Studies have shown that sports often function as a form of soft power, enabling leaders to connect with their constituents on a personal and emotional level (Grix & Houlihan, 2014). In Sanusi's case, his involvement in football elevated him beyond the realm of politics, establishing him as a cultural icon within Kedah. Football holds a deeply ingrained significance in the sociocultural identity of modern Malay society, celebrated as the *sukan rakyat* (sport of the people) and one of the most influential forms of recreation in Malaysia. Its importance extends beyond entertainment, symbolising community pride and unity. The cultural potency of football is epitomised by the dramatic transformation of Johor's football landscape initiated in 2013 under the stewardship of Tunku Mahkota Johor (TMJ), with his leadership giving rise to the influential Johor Darul Ta'zim (JDT) phenomenon. TMJ's leadership revitalised Johorean football and at the same time elevated the monarchy's sociocultural profile, effectively positioning it as an active catalyst behind this cultural reawakening (Shah Mohd Akmal, 2020). Within the framework of populism, football functions as a symbolic resource that enables leaders to embody proximity to "the people," transforming sporting spaces into arenas that integrate political legitimacy, cultural identity, and mass mobilisation (Sandu & Di Ruzza, 2025).

Muhammad Sanusi Md Nor's appointment as President of the Kedah Football Association (KFA) in 2020, consistent with the tradition of state Chief Ministers assuming leadership of state

football associations, signalled the onset of his public conflict with TMJ. The rivalry drew national attention after TMJ sent Sanusi a bouquet of flowers and a McDonald's meal, a gesture that exemplified the use of symbolic performance in framing political and cultural contestation in Malaysia's public sphere (Fong, 2021). Although framed in a light-hearted manner, the exchange functioned as a public marker of the rivalry between the two figures.

Sanusi's critiques transcended personal disputes, focussing on broader governance challenges within Malaysian football. He criticized what he described as "the excessive centralisation of power" in the sport's administration. In one notable instance, he remarked:

"[Football is not meant for individuals, and there should be no 'deity' in this sport to the extent that everyone has to seek his approval first. There should be no 'deity' in football because it is a sport for everyone....Before the match, they bring out a big banner that says 'fair play,' but there's a 'deity' Everyone has to ask him first—'it's doomed' if that's the way it is, how can we even play like that?]" (Tan, 2022)."

Despite appearing superficially trivial, this public declaration became symbolic, amplifying Sanusi's populist image. Among his supporters, Sanusi's willingness to openly confront a powerful establishment figure like TMJ was perceived as courageous, relatable, and profoundly authentic. Further enhancing his populist appeal was the strong anti-

JDT sentiment pervasive among segments of Malaysian football fans, particularly within Kedah. This sentiment, coupled with criticisms of JDT's prolonged dominance in Malaysian football—exemplified by twelve consecutive league titles from 2014 to 2025—was frequently interpreted by non-JDT supporters as a concentration of sporting power 'detrimental' to the game, thereby amplifying Sanusi's popularity. This dichotomy consolidated his base while reinforcing his populist appeal within the broader football community. Indeed, Sanusi's rhetorical confrontations with TMJ, articulated in a cynical and blunt register, resonated among segments of his support base. Whether construed as a calculated populist strategy or as an authentic expression of grievance, these interventions were nonetheless articulated by the mass public as a symbolic "voice of the people." Within this discursive process, Sanusi operated as a nodal point in Laclau's (2005) sense, binding together fragmented grievances into collective demands that contested established hierarchies.

Building on his political persona, Sanusi consolidated his populist appeal by intertwining contemporary issues with selective historical narratives, a strategy that positioned him simultaneously as relatable to his audience and assertive in projecting authority. In May 2023, Sanusi remarked:

"[I am waiting for confirmation from the Department of Survey and Mapping Malaysia (JUPEM) if there is any basis to verify the boundaries of Kedah with other neighboring states. What I know

is that Penang belongs to Kedah...Not saying we want to take (Penang) back, not something we lost, it's already our right"] (Noorazura, 2023)."

This statement received widespread attention, including a strong response from Penang DAP leaders such as Lim Guan Eng and RSN Rayer, who lodged police reports claiming that Sanusi's comments caused unease among Penang residents about losing their state (Dermawan, 2023). While the claim sparked outrage among opposition leaders and federal authorities, it resonated among his supporters, many of them interpreting it as an assertion of Kedah's pride and sovereignty. The political mileage Sanusi derived from this statement can be understood in the context of Penang's demographic and political realities. As a state dominated by the Democratic Action Party (DAP), Penang is often perceived by segments of the Malay electorate as a symbol of diminished Malay political influence. By invoking a narrative of reclaiming Kedah's historical right over Penang, Sanusi effectively positioned himself as a defender of Malay-Muslim heritage and sovereignty. This rhetoric not only played to his existing voter base but also appealed to broader sentiments of cultural and political disenfranchisement among Malay voters. This narrative further amplified his populist appeal, presenting him as a leader committed to restoring Malay dominance in a state widely perceived to be under DAP control. For some Malays, this behaviour symbolized resistance against what was perceived as a threat to the Malay status quo.

A pivotal moment in Sanusi's rise came in July 2023, when he was arrested under sedition charges for alleged remarks about the Selangor Sultan. The arrest of Muhammad Sanusi in July 2023 under sedition charges marked a defining moment in his political trajectory. The charges were linked to his alleged remarks concerning the Sultan of Selangor during a campaign event in Gombak. Sanusi reportedly stated that "a great Sultan like that (referring to Kedah) would not choose a 'cokia' (substandard) Chief Minister like Amir (Amirudin)" (Malaysia Gazette, 2023). This remark, made in the context of PAS's broader efforts to consolidate the Malay vote, triggered significant controversy. The Sultan of Selangor viewed the statement as a direct affront to the monarchy, escalating tensions and leading to the filing of 57 police reports against Sanusi (Qistina, 2023). This incident, occurring just weeks before the state elections, became a rallying point for his supporters and a turning point in his political career. The arrest was widely perceived as a politically motivated act aimed at weakening PN's momentum, but it had the opposite effect.

Instead of diminishing his stature, the arrest of Muhammad Sanusi unexpectedly elevated his political stature, transforming him into a symbol of defiance and resistance. A single image of Sanusi raising his hand as he was escorted by police during his court appearance became iconic, resonating deeply with his supporters and sparking widespread comparisons to Anwar Ibrahim's raised fist during his 1998 arrest amid the Reformasi movement. The photograph of

Sanusi, simple yet potent, transcended its immediate context to become a rallying symbol of opposition to perceived federal oppression. Shared widely across platforms such as Facebook, Twitter (now X), and TikTok, the image of Sanusi's raised-hand gesture quickly transformed into a potent symbol of resistance and populist identity. Reminiscent of the iconic style associated with Prime Minister Anwar Ibrahim during the Reformasi era, the gesture became the centrepiece of a phenomenon dubbed *Fenomena Angkat Tangan Sanusi*. It dominated social media, emerging as a meme and viral trend that significantly amplified Sanusi's populist appeal.

Beyond its visual impact, the raised-hand gesture also carried auditory resonance. A voice clip of Sanusi proclaiming, "*Saya angkat tangan lawan Anwar Ibrahim*," (I raise my hand against Anwar Ibrahim) became a widely shared soundtrack, featured in over 8,300 TikTok videos. Users across the platform replicated the gesture, many lauding Sanusi, the candidate for DUN Jeneri, as a "hero" and branding the trend as "*Reformusi*." The movement extended to various sectors, with construction workers uploading videos of themselves raising excavator arms in solidarity, often accompanied by PAS flags and the soundtrack, turning their tools into symbols of political allegiance. Sanusi himself embraced the trend by using the raised-hand gesture during his campaign events. The gesture was met with enthusiastic cheers and applause. At gatherings, supporters mirrored the gesture, further solidifying its

status as a unifying act of resistance and an emblem of populist identity (Malaysiakini, 2023). The integration of visual and auditory elements into Sanusi's campaign created a multifaceted narrative that became deeply embedded in the election discourse. Memes, hashtags, and viral slogans elevated him into a larger-than-life figure, galvanising his voter base and drawing attention from undecided voters. Sanusi's adept use of the trend demonstrates a strategic integration of traditional political campaigning with the viral dynamics of social media. This approach enhanced his visibility and reinforced his image as a populist leader who embodies the spirit of resistance and unity.

Sanusi's Populism and Its Impact on the 2023 State Elections

The 2023 state elections, held on August 12, 2023, were pivotal in reshaping the political dynamics of northern Malaysia, particularly in Kedah and parts of Penang. Conducted separately from the 15th General Election (GE15), these elections underscored the growing salience of populist narratives in shaping voter alignments. As PN's election director and public face of the coalition's campaign, Sanusi played a central role in consolidating PAS's position in Kedah and extending its reach into Malay-majority areas of Penang.

Kedah: The Transformation into a PAS Stronghold

The 2023 Kedah state elections marked a watershed moment, solidifying PN's

status as the preeminent political force in the state. With a resounding victory, securing 33 out of 36 state assembly seats, PN achieved an unprecedented electoral outcome that fundamentally transformed Kedah’s political landscape. This landslide result was emblematic not only of the coalition’s effective electoral strategy but also of the central role played by Muhammad Sanusi. His leadership and populist rhetoric were instrumental in galvanizing support for PAS and its coalition partners. Within PN, PAS won 21 seats, Bersatu secured 11, and Gerakan contributed one seat. Collectively, these results reflected the coalition’s broad-based appeal across Kedah. In stark contrast to previous elections, the 2023 results demonstrated a clear and unequivocal shift toward PN dominance. For instance, in 2013, PAS had secured only nine seats, while Barisan Nasional (BN) held a commanding 21-seat majority. By 2018, PAS had expanded its presence to 15 seats, but Pakatan Harapan (PH) capitalized on growing dissatisfaction with BN to secure a majority of 18 seats (Table 1). These earlier elections, marked by competitive and fragmented distributions of political power, reflected a political environment in which no single party or coalition exercised overwhelming sway. The 2023 state elections, however, represented a decisive turning point. Under Sanusi’s role as PN’s election director, PAS and its allies consolidated their voter base while simultaneously eroding the long-established strongholds of both PH and BN.

Table 1
Kedah State Assembly Results (2013–2023)

Election	PAS/PN Seats	PR/PH Seats*	BN Seats
GE13 (2013)	9	6	21
GE14 (2018)	15	18	3
State Election 2023	33	3	0

Source: Election Commission of Malaysia (2013, 2018, 2023)
Note. *Without PAS

A key element of this strategy was PN’s ability to connect with voters through relatable and strategically chosen candidates. One notable example of Sanusi’s strategic populism was the decision to field former football star Baddrol Bakhtiar as a candidate in Gurun. Historically a BN/MCA stronghold since 1986, Gurun was considered a challenging constituency for PAS to win. However, Sanusi’s decision to select Baddrol, a widely admired and relatable figure, proved to be a strategic masterstroke. For the first time in history, PAS captured Gurun, a seat that PH had previously secured in the 2018 general election. Rather than signaling a decisive transformation, this outcome symbolised the capacity of populist strategies to disrupt entrenched voting patterns and underscored the role of candidate profiling in shaping electoral behaviour. Similarly, Sanusi’s decision to field another former footballer, Radzi Mat Din, in Alor Mengkudu yielded significant results. Radzi’s victory over PH Kedah Chairman Mahfuz Omar, with a commanding majority of 10,104 votes, underscored PN’s ability to outmaneuver established political figures.

The defeat of Mahfuz, a prominent and seasoned politician, underscored the salience of Sanusi’s populist discourse in mobilizing voter support and reshaping electoral preferences. It also reflected a broader rejection of PH’s leadership in Kedah, with voters gravitating toward PN’s promises of change and its narrative of reclaiming local pride and sovereignty. The strategic deployment of high-profile yet relatable candidates like Baddrol Bakhtiar and Radzi Mat Din allowed PN to enhance its grassroots strategy while emphasising local representation and identity. This approach resonated particularly well with young voters and rural communities, creating a strong connection to candidates such as Baddrol. His background as a celebrated football player rooted in a *kampung* (village) setting deeply appealed to the electorate. These carefully crafted candidate selections bolstered PN’s grassroots appeal and played a critical role in weakening entrenched

political strongholds, setting the stage for one of Kedah’s most significant electoral shifts.

Building on this momentum, PN’s sweeping victory was further reinforced by the defeat of several prominent leaders from PH and BN, highlighting the coalition’s ability to reshape Kedah’s political landscape (Table 2). Mahdzir Khalid, Chairman of BN Kedah, failed in his bid to reclaim the DUN Pedu seat, losing to incumbent Mohd Radzi Mat Amin by a significant margin of 6, 373 votes. Similarly, Mahfuz Omar, Chairman of PH Kedah, suffered a resounding defeat in DUN Alor Mengkudu to Radzi Mat Din, with a majority of 10,104 votes. The defeat of Tan Kok Yew, Chairman of DAP Kedah, further highlighted the scale of PN’s triumph. Losing in DUN Derga to Bersatu’s Muhammad Amri Wahab, a political newcomer, Tan’s loss was particularly symbolic. Muhammad Amri made history as the first Malay candidate to win the DUN

Table 2
The defeated prominent leaders from PH and BN in the 2023 Kedah State Elections

Name	Position	Constituency (DUN)	Winning Candidate	Winning Party (PN)	Majority Votes
Mahdzir Khalid	Chairman of BN Kedah	Pedu	Mohd Radzi Mat Amin	PAS	6,373
Mahfuz Omar	Chairman of PH Kedah	Alor Mengkudu	Radzi Mat Din	PAS	10,104
Ismail Salleh	Chairman of Amanah Kedah	Pengkalan Kundor	Mardhiyyah Johari	PAS	22,349
Tan Kok Yew	Chairman of DAP Kedah	Derga	Muhammad Amri Wahab	Bersatu	14,433
Zamri Yusof	Former Opposition Leader of Kedah DUN	Suka Menanti (previously was Bakar Bata)	Dzowahir Ab. Ghani	Bersatu	18,396

Derga seat in 30 years. Among the 47 seats contested by DAP nationwide, Derga was the only seat the party lost, illustrating the deep inroads PN made into constituencies once considered impenetrable. These outcomes reflect the effectiveness of PN’s grassroots strategy and the populist framing that enabled the coalition to capitalize on shifting voter sentiments, culminating in a historic victory in Kedah.

The 2023 Kedah state elections signify a profound transformation in the state’s political landscape. PN’s overwhelming victory consolidated its status as the dominant coalition. This outcome reflects the operationalisation of populist strategy under Sanusi. The strategy drew on populist roots, identity-based appeals, symbolic rhetoric, and grassroots mobilisation. These elements align with scholarly debates on populism that emphasise anti-elitist framing and cultural identity (Mudde & Kaltwasser, 2017; Laclau, 2005). In Malaysia, this pattern corresponds with ethno-religious mobilisation analysed by Halim and Azhari (2020). It also echoes Weiss’s (2020) observation that personalisation often outweighs ideological coherence. Sanusi’s anak kampung persona illustrates how localised cultural symbols embed populist discourse in Malaysia’s political context, shaping its capacity to attract mass support.

Penang: PAS’s Growing Presence in Malay-majority Areas

In addition to the transformative victory in Kedah, the 2023 state elections underscored

a significant, albeit less dramatic, development in neighbouring Penang. Despite Penang’s historical status as a PH stronghold, the influence of PN began to permeate the northern, Malay-majority districts of the state. The results showed an increasing presence of PAS, as the party expanded its representation to seven seats, up from only two in the previous election. In total, PN secured 11 seats in the Penang State Assembly, with PAS and its coalition partner, Bersatu, making notable inroads into what had long been regarded as a political domain dominated by DAP and BN.

Table 3
Penang State Assembly results (Malay-majority Areas: 2013–2023)

Election	PAS/PN Seats	PR/PH Seats*	BN Seats
GE13 (2013)	1	29	10
GE14 (2018)	1	37	2
State Election 2023	11	27	2

Source: Election Commission of Malaysia (2013, 2018, 2023)

Note. *Without PAS

Out of the 11 seats won by PN, 10 were captured from incumbents. These included three seats previously held by BN (Permatang Berangan, Sungai Dua, and Telok Bahang) and one by Amanah (Permatang Pasir). PN also seized six seats from PKR: Penanti, Seberang Jaya, Telok Ayer Tawar, Pinang Tunggal, Sungai Bakap, and Pulau Betong. This sweeping

performance reflects a strategic realignment within Penang’s northern constituencies, with Malay voters shifting their support decisively toward PAS and Bersatu (see Table 4).

Sanusi’s populist approach may have acted as one accelerant in this electoral shift, though his role is best understood within a wider configuration of socio-political forces. PAS’s advance in Penang was facilitated by its capacity to organise around Malay-Muslim identity, local discontent, and disaffection toward federal political elites. These dynamics collectively enabled the party to secure political ground in a state once firmly associated with PH and, before that, BN.

The growing presence of PAS in Penang, particularly in districts with substantial Malay populations, reflects the effectiveness of populist appeals shaped by anti-DAP sentiment, especially in light of PH and UMNO now operating within the same coalition as DAP. Grassroots mobilisation, local pride, and defiance toward central authority emerged as recurring elements that resonated with segments of the electorate unsettled by established political

arrangements. Similar to developments in Kedah, this trajectory also illustrates the operation of classical Malay populism in mobilising Malay support in Penang.

CONCLUSION

This study characterises the Malay populist, or what may be termed a “classical Malay populist,” through an analysis of Muhammad Sanusi’s political behaviour during the 2023 state elections. His trajectory demonstrates how identity-based appeals, symbolic gestures, anti-elitist narratives, and digital mobilisation can be articulated within a distinct Malay context, particularly in northern Malaysia. The notion of “classical Malay populism” is used as an analytical device to capture this interplay, without elevating the label into a form of personal branding.

The 2023 Kedah elections illustrate the capacity of populism to recalibrate political alignments, displace entrenched parties, and reshape voter loyalties, particularly among the Malay electorate. These developments reveal both the possibilities and risks of populist strategies: they can mobilise grassroots aspirations and redistribute

Table 4
Seats captured by PN in the 2023 Penang State Elections

Party	Total Seats Won	Seats Captured	Previous Incumbent
PAS	7	Permatang Berangan, Sungai Dua, Telok Bahang	BN
		Permatang Pasir	Amanah
		Penanti, Seberang Jaya, Telok Ayer Tawar	PKR
Bersatu	4	Pinang Tunggal, Sungai Bakap, Pulau Betong, Telok Ayer Tawar	PKR

Source: Election Commission of Malaysia (2013, 2018, 2023)

political capital, yet also erode institutional resilience and deepen polarisation in a plural society. Malaysia's experience therefore provides a critical vantage point for understanding the role of populism in transforming political landscapes in Southeast Asia.

The study nonetheless faces limitations in fully defining the contours of "classical Malay populism." The concept remains provisional, shaped by a single case and specific regional context. Broader comparative research across states and leaders is needed to test its applicability and to distinguish between transient electoral tactics and enduring populist structures. Future studies should also explore how classical Malay populism interacts with multiethnic dynamics, institutional constraints, and global populist currents, thereby refining the framework and situating it more firmly within comparative populism scholarship.

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Program Pembasmian Kemiskinan Bandar oleh Majlis Bandaraya Petaling Jaya: Suatu Kajian Proses Pelaksanaan (2008-2023)

Helen Mu Hung Ting* and Nor'Ain Adam

Institut Kajian Malaysia dan Antarabangsa, Lingkungan Johan, Universiti Kebangsaan Malaysia, 43600 UKM Bangi, Selangor, Malaysia

ABSTRAK

Artikel ini mengkaji proses penjalanan Program Pembasmian Kemiskinan Bandar (PPKB) oleh Majlis Bandaraya Petaling Jaya (MBPJ) untuk memahami paradoks tentang sebuah Pihak Berkuasa Tempatan (PBT) dengan rekod prestasi perkhidmatan yang cemerlang, namun menunjukkan keterbatasan dalam usahanya untuk membanteras kemiskinan di kawasanya. Seterusnya, implikasinya terhadap tadbir urus bandar (urban governance) dan perhubungan persekutuan-tempatan dibincang. Metod kualitatif digunakan, iaitu temubual mendalam dan berstruktur, pemerhatian, serta analisis dokumen rasmi. Proses pelaksanaan PPKB dikaji mengikut kerangka konseptual yang meneliti tiga tahap penjalanan program, iaitu pembangunan, pelaksanaan dan penilaian. Kajian mendapati bahawa MBPJ membangunkan PPKB sebagai tindakan susulan daripada pengenalan Sistem Penarafan Bintang Pihak Berkuasa Tempatan (SPB-PBT) oleh Kementerian Perumahan dan Kerajaan Tempatan, dan proses pelaksanaan PPKB diwarnai oleh skop penilaian prestasi yang tertera dalam kerangka SPB-PBT. Oleh itu, tumpuan penilaian dalaman tidak membincang tentang keberkesanan program dari segi pemeraksanaan mata pencarian dan peningkatan kualiti kehidupan peserta PPKB secara mampan. Justeru, skop penilaian dan skema permarkahan yang ditetapkan dalam SPB-PBT berjaya memberi panduan kepada PBT tentang keutamaan yang perlu diusahakan oleh mereka, namun juga menjadi punca keterbatasan implementasi PPKB oleh MBPJ. Usaha ketara MBPJ untuk memenuhi keperluan warga miskin di kawasanya adalah terpuji, namun usaha ini bertujuan untuk memenuhi syarat indikator SPB-PBT dan bukan berdasarkan misi untuk menghapuskan kemiskinan bandar secara mampan.

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E-mail addresses:

helenting2011@gmail.com (Helen Mu Hung Ting)

norain@mbpj.gov.my (Nor'Ain Adam)

*Corresponding author

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ABSTRACT

This article examines the implementation process of the Urban Poverty Eradication Programmes by the Petaling Jaya City Council to unravel the paradox of a top-performing Council which achieved no apparent progress in alleviating urban poverty and discusses its implications on urban governance and federal-local dynamics. The study employs qualitative methods, including structured in-depth interviews, observation, and official document analysis. Analysis is conceptually divided into three stages, i.e. development, implementation, and evaluation of the programmes. The study found that the Council launched these programmes in view of the Local Authority Star Rating System introduced by the Ministry of Housing and Local Government, and its implementation was influenced by the scope of evaluation stipulated by the rating scheme. Consequently, internal evaluation reports did not assess how effective the programmes were in improving the livelihood and quality of life of the target groups. The Ministry was effective in providing guidance to the local authorities on the priorities to focus on through its Star Rating System, whose scope of evaluation and rating scheme set the tone, but also its limit. The manifest efforts of the Council in catering for needy residents are commendable, but they were oriented to fulfilling administrative requirements rather than resolving the larger issues of poverty eradication sustainably.

Keywords: Local council authority, Ministry of Housing and Local Government, new urban agenda, urban governance, urban indicator, urban poverty eradication programme

PENGENALAN

Latarbelakang Kajian

Kemiskinan bandar memerlukan perhatian serius daripada kerajaan untuk mencapai pembangunan yang lebih seimbang dan saksama. Pada peringkat antarabangsa, pembasmian kemiskinan di bandar telah diketengahkan sebagai salah satu keutamaan untuk tindakan sejak Persidangan UN-HABITAT II yang diadakan pada 1996 (Wegelin & Borgman, 1995). Strategi untuk mengurangkan kemiskinan biasanya melibatkan intervensi pada peringkat makro (oleh kerajaan pusat) dan mikro (oleh organisasi komuniti); intervensi oleh Kerajaan Tempatan boleh dianggap sebagai peringkat meso berdasarkan bidang kuasa institusi tempatan (Vanderschueren et

al., 1996, p. 3-4). Untuk tujuan tersebut, Kerajaan Tempatan digesa supaya bertukar pendekatan tradisinya yang menekankan pengawasan pembangunan (*development control*) kepada promosi pembangunan (*development promotion*) (p. 10).

Tindakan Kerajaan Tempatan untuk mengurangkan kemiskinan bandar, biasanya dengan kerjasama penduduk, bukan sesuatu yang baru, walaupun corak tindakan itu berbeza-beza dan bergantung kepada keadaan tempatan. Dalam banyak kes, ia melibatkan usaha menaiktaraf kemudahan asas di kawasan setingan seperti penyambungan sistem paip air bersih dan pembetulan (Program Perbaikan Kampung, Jakarta), pembinaan atau pembaikpulihan rumah daif atau merbahaya (*Slum Action Plan*, Sao Paulo) (Serageldin

et al., 2006). Kajian Sriyana (2025) menentukan bahawa peningkatan peruntukan Kerajaan Tempatan di Yogyakarta bagi program pembasmian kemiskinan berjaya menurunkan kadar kemiskinan. Di Senegal, majlis bandaraya Dakar mewujudkan bahagian baru yang tertumpu kepada usaha menyokong usahawan kecil belia, manakala Datuk Bandar Cebu membentuk *City Commission for the Urban Poor*, sebuah badan khusus untuk menangani kemiskinan bandar (Vanderschueren et al., 1996). Di Afrika Selatan, pendekatan *local economy development* diangkat oleh majlis bandaraya Buffalo City untuk membantu membangunkan ekonomi tempatan melalui pertanian bandar, *tourisme* dan pemerksaan keusahawanan kecil, sederhana dan mikro (Mbeba, 2014). Pendekatan *local economy development* juga digunapakai oleh beberapa kota-kota bandar terpilih di Europa Timur dan Tengah untuk mengurangkan kemiskinan dan pengangguran (Murphy & Gwen, 2005).

Kerja hakiki tradisional Pihak Berkuasa Tempatan (PBT) di Malaysia tertumpu kepada pengurusan perkhidmatan dan penyediaan kemudahan asas di bandar seperti pengumpulan sampah, penyelenggaraan lampu jalan serta kawalan kesihatan awam. Jadual Kesembilan Pelembagaan Persekutuan (No. 4-6) menyenaraikan jenis perkhidmatan dan kawalan tempatan, yang seterusnya diletak di bawah tanggungjawab Kerajaan Tempatan seperti diperincikan di dalam Akta Kerajaan Tempatan 1976. Di bawah Akta tersebut, peranan dan kuasa PBT juga meliputi pengawalan aktiviti

perdagangan tempatan, pembangunan perumahan, taman rekreasi dan infrastruktur awam.

Menurut Perlembagaan Persekutuan (Jadual Kesembilan, Senarai II, No. 4), PBT sebagai Kerajaan Tempatan adalah terletak di bawah bidang kuasa Dewan Undangan Negeri masing-masing kecuali mereka yang berada di Wilayah Persekutuan. Namun, PBT juga di bawah pengawasan Majlis Negara bagi Kerajaan Tempatan (MNKT) yang dipengerusikan oleh Menteri Perumahan dan Kerajaan Tempatan dengan wakil-wakil persekutuan dan semua negeri sebagai ahlinya (Perkara 95A, Perlembagaan Persekutuan). Majlis Negara bagi Kerajaan Tempatan menggubal dasar persekutuan berkenaan halatuju Kerajaan Tempatan secara keseluruhan dan Kementerian Perumahan dan Kerajaan Tempatan (KPKT) melaksanakan dasar tersebut melalui Kerajaan Negeri. Ahli Exco Kerajaan Negeri Selangor yang berportfolio Kerajaan Tempatan bertanggungjawab untuk melaksanakan semua dasar KPKT terhadap PBT di seluruh Selangor.

Susulan pengenalan Dasar Perbandaran Negara (2006-2015) (DPN1) yang bertujuan untuk memandu dan menyelaras pembangunan dan perancangan bandar di Semenanjung Malaysia oleh KPKT, PBT telah disarankan supaya mengadakan aktiviti untuk membantu penduduk miskin di kawasan masing-masing. DPN1 menetapkan pembasmian kemiskinan bandar sebagai salah satu daripada objektifnya. Bahagian ke-13 di bawah Teras 2 DPN1 merujuk kepada gerak kerja supaya “peluang

pekerjaan terutama kepada kumpulan yang berpendapatan rendah dipertingkat dan dipelbagaikan tanpa mengira kaum". PBT diletak sebagai salah satu agensi pelaksana bagi Bahagian ini. (Jabatan Perancangan Bandar dan Desa, 2006, p. 10).

DPN Kedua (2016-2025) (DPN2) dan Agenda Perbandaran Baharu (diterjemahkan daripada dokumen Pertubuhan Bangsa-Bangsa Bersatu, the *New Urban Agenda* atau NUA) yang diperkenalkan pada 2017 juga menyarankan perhatian kepada golongan miskin bandar. Prinsip keempat DPN2 merangkumi penganjuran program yang khusus untuk kebajikan isi rumah B40 di bandar untuk meningkatkan taraf hidup mereka (Jabatan Perancangan Bandar dan Desa, 2016). Untuk menambahbaik dan mencapai konsep asas keefisienan perkhidmatan bandar, PBT disaran memberi perkhidmatan perbandaran berpandukan matlamat pembangunan mampan dan NUA.

Prestasi perkhidmatan PBT dipantau oleh KPKT melalui Sistem Penarafan Bintang Pihak Berkuasa Tempatan (SPB-PBT). Demi pembudayaan kerja berasaskan prestasi, Kerajaan Persekutuan telah mengeluarkan Pekeliling Kemajuan Pentadbiran Awam Bilangan 2 Tahun 2005 yang menyaran agensi kerajaan mengukur prestasi perkhidmatan berasaskan prinsip-prinsip tertentu (Din & Ngah, 2017). Pada 2008, dalam usaha untuk memantau dan mengekalkan prestasi perkhidmatan PBT yang baik dan cekap serta memastikan dasar kerajaan dilaksanakan, Ketua Setiausaha KPKT telah mengeluarkan pekeliling untuk melaksanakan SPB-PBT (KPKT, 2008).

Indikator penilaian SPB-PBT menjurus kepada tindakan PBT seperti dinyatakan dalam DPN dan NUA. Mulai 1 April 2008, KPKT menjalankan penarafan gred (*ranking*) sekali setiap dua tahun atas semua PBT terhadap kualiti perkhidmatan yang telah disediakan demi penduduk mengikut kriteria-kriteria seperti tertera dalam kerangka SPB-PBT. Semasa wabak covid-19 pada 2020, penilaian SPB-PBT ditangguhkan buat sementara oleh KPKT dan dilaksanakan semula pada tahun 2022.

Kajian ini meneliti proses pelaksanaan Program Pembasmian Kemiskinan Bandar (PPKB) oleh Majlis Bandaraya Petaling Jaya (MBPJ) pada tempoh tahun 2008–2023. Sebagai salah sebuah PBT yang bertaraf bandaraya di Negeri Selangor, MBPJ meliputi kawasan seluas 97.2 kilometer persegi dengan 807,879 penduduk dan 276,793 pegangan harta pada Januari 2024 (MBPJ, 2024). Pelaksanaan PPKB di peringkat PBT merupakan salah satu kriteria indikator yang diambil kira dalam penilaian SPB-PBT.

MBPJ bermula terlibat dalam PPKB sejak 2007 selepas pengenalan DPN1, namun cuma sebagai pemudahcara untuk menyalurkan peruntukan PPKB daripada KPKT kepada penduduk yang memerlukan (MBPJ, 2007). Ia mula membangunkan dan melaksanakan PPKB secara pro-aktif sejak 2008 selepas penguatkuasaan penilaian SPB-PBT. Di sebaliknya, kebanyakan PBT tiada kemampuan kewangan untuk menjalankan banyak program yang memanfaatkan warga miskin. Dari semasa ke semasa, PBT mengadakan program bagi warga miskin

seperti membantu gelandangan untuk mencari pekerjaan, atau mengagihkan bantuan sumbangan kebajikan atau makanan percuma.

Permasalahan, Objektif, dan Kepentingan Kajian

Walaupun kebanyakan PBT masih tidak melaksanakan PPKB atas kekangan bajet, MBPJ merupakan satu-satunya PBT yang melaksanakannya secara sistematik dengan bajet sendiri. Namun peserta PPKB semakin bertambah, dan keadaan kemiskinan bandar tidak mengalami perubahan secara ketara di kawasan MBPJ biarpun pelbagai PPKB telah dijalankan oleh MBPJ. Kemiskinan bandar kekal menjadi cabaran kepada pihak MBPJ untuk diatasi. Di sebaliknya, berdasarkan penilaian SPB-PBT, prestasi MBPJ dianggap “cemerlang” dan selalunya dianugerahkan 5 bintang. Menurut keputusan SPB-PBT 2018, MBPJ telah mencapai kedudukan keempat bagi kategori “bandaraya terbaik” di seluruh Malaysia, manakala ia telah dinobatkan tempat pertama bagi kategori “bandaraya terbaik” pada 2022. Kontras keadaan MBPJ di antara pengiktirafan prestasi perkhidmatannya sebagai cemerlang dan keterbatasan usaha gigihnya untuk membanteras kemiskinan di kawasanya merupakan suatu “*puzzle*” yang wajar ditelaah.

Artikel ini bertujuan mencari penjelasan tentang paradoks ini dengan meneliti tatacara pelaksanaan PPKB. Bagaimanakah PPKB dibangunkan oleh MBPJ? Apakah jenis program yang disediakan dan adakah

MBPJ berpuas hati dengan prestasi PPKBnya? Bagaimanakah kayu ukur penilaian ditentukan bila program dinilai secara dalaman? Sehubungan itu kajian ini cuba mengenal pasti kekuatan dan kelemahan prosedur penjalanan PPKB yang boleh memberi pencerahan kepada keadaan ini. Cabaran untuk menangani kemiskinan bandar sebenarnya multidimensi dan memang rumit untuk diatasi. Kajian ini menumpu skopnya dari tinjauan tadbir urus (*governance*).

Dari segi kepentingan kajian, seperti yang akan dibincang di bahagian sorotan kajian lepas, bukan sahaja jarang dijumpai kajian berkenaan PPKB yang dilaksanakan oleh PBT di Malaysia, kajian ini juga merupakan suatu kajian perintis yang meneliti PPKB dari segi tatacara pelaksanaan dan menyumbang terhadap pembinaan ilmu di bidang pentadbiran awam serta dari segi peranan PBT untuk membangunkan bandar yang mampan dan sejahtera. Ini adalah relevan kepada perbincangan tentang cabaran yang dihadapi dari segi tadbir urus bandar. Konsep *urban governance* menumpu perhatian kepada perhubungan dan interaksi di antara pelbagai aktor serta keadaan dan peraturan yang membentuk kerangka institusi di mana interaksi dan perhubungan ini berlaku (Da Cruz et al., 2019). Justeru, kajian ini menyumbang kepada korpus kajian empirikal yang masih kekurangan sehingga menghalang kefahaman yang lebih mendalam tentang pelbagai realiti tadbir urus bandar (Da Cruz et al., 2019).

TINJAUAN LITERATUR

Sorotan Kajian

Skop kajian lalu berkaitan kemiskinan bandar di Malaysia lebih menjurus kepada faktor yang menyumbang kepada kemiskinan bandar dan ciri-ciri warga miskin bandar. Proses urbanisasi yang berkembang ke kawasan luar bandar adalah antara punca utama peningkatan kemiskinan bandar. Kemiskinan bandar juga bertambah bila penduduk miskin di kampung berhijrah ke bandar untuk mencari rezeki. Proses urbanisasi yang terlalu pesat juga menyebabkan kesesakan populasi penduduk dan perkhidmatan kemudahan awam yang terbeban, yang terus menjejaskan kualiti taraf hidup komuniti tempatan (Khalid, 2012; Yaacob & Hassan, 2023). Dengan peluang pekerjaan di bandar yang terhad, persaingan untuk mendapatkan pekerjaan bergaji tetap dan lumayan menjadi semakin sengit (Ahmed et al., 2019; Siwar & Mohd. Jani, 2003; Talib, 2016). Di samping itu, tahap pendidikan yang rendah dan kekurangan kemahiran yang memenuhi keperluan pasaran pekerjaan menyukarkan golongan miskin bandar untuk mendapatkan pekerjaan (Abd Aziz et al., 2011; Fong, 1989). Didapati bahawa golongan miskin di bandar bukan hanya menghadapi masalah kekurangan kewangan atau harta benda bahkan juga masalah dalam pelbagai aspek seperti kesihatan, kekurangan kemudahan asas, pendidikan anak dan cabaran lain yang dikenali sebagai kemiskinan multidimensi (Jayasooria, 2016; Khoo et al., 2018). Para sarjana sejak lama telah menyarankan pembinaan indikator-indikator pengukuran

yang lebih komprehensif untuk menentukan golongan miskin bandar secara lebih tepat (Mohamed & Xavier, 2015; Shari, 1979). Secara keseluruhannya, faktor dan ciri yang sama telah dikaitkan dengan isi rumah termiskin di bandar iaitu: tahap kemahiran atau pendidikan yang rendah, pengangguran, kekurangan peluang pekerjaan, gaji yang rendah, saiz keluarga yang besar, tempat tinggal yang daif dan kesulitan untuk mengakses kemudahan asas.

Permasalahan kemudahan perumahan dan keadaan penduduk setinggan juga menarik banyak perhatian daripada para sarjana. Kajian lalu mendapati keluarga miskin bandar yang tidak mampu terpaksa menyewa rumah usang, tinggal di kawasan setinggan, atau di lokasi merbahaya yang boleh menimbulkan kemalangan semasa musim hujan seperti di tepi sungai atau di cerun bukit (Yahaya, 1989, 1998). Banyak kajian meneliti dasar dan amalan kerajaan di Malaysia untuk menyediakan rumah bagi golongan miskin (Agus, 1992, 2001; Md. Tahir & Agus, 2003; Rameli, 2022; Siwar & Mohd. Jani, 2003).

Pada 1999, KPKT memperkenalkan dasar “setinggan sifar” menjelang 2005 yang cuba menempatkan semula penduduk setinggan di bawah Program Perumahan Rakyat (PPR) di Kuala Lumpur (Agus, 2006). Sejak itu, kajian berkenaan keadaan penghuni perumahan kos rendah telah berganda (Besar et al., 2018; Harun et al., 2024; Khazanah Research Institute, 2023; Md Tahir & Agus, 2003; Salleh & Latiffi, 2021). Inisiatif kerajaan membantu golongan miskin bandar untuk mendapatkan

rumah sendiri mahupun secara sewaan adalah melalui PPR dan perumahan awam. Menurut kajian-kajian tersebut, pelaksanaan program perumahan oleh kerajaan telah menimbulkan beberapa persoalan. Isu pertama adalah berkenaan saiz rumah yang kecil, sedangkan golongan miskin cenderung berjumlah ahli keluarga yang ramai. Tambahan pula, kriteria pemilikan rumah memang tidak mencakupi semua golongan sasaran. Wujud juga isu kemudahan awam yang tidak mencukupi di kawasan PPR mahupun perumahan awam.

Beberapa kajian terkini berkenaan penduduk PPR di Kuala Lumpur meneliti tahap ketahanan (*resilience*) mereka semasa menghadapi masalah harian dalam kehidupan mereka dari pelbagai sudut (Alias & Sulaiman, 2023; Salleh et al., 2023; Sulaiman et al., 2023). Alias dan Sulaiman (2023) mendapati bahawa keterlibatan dalam komuniti dan keyakinan terhadap komuniti (yang ditakrif sebagai ketahanan komuniti) boleh meningkatkan kualiti kehidupan penduduk. Kajian Sulaiman et al. (2023) mengesahkan bahawa ketahanan pendapatan kebanyakan penghuni PPR berada pada tahap sederhana dan perlu diperkukuhkan. Ismail et al. (2025) pula mendapati bahawa antara pelbagai jenis risiko (*vulnerability*) yang boleh menjejaskan kelestarian kehidupan warga miskin di Kuala Lumpur, aspek ekonomi yang paling terdedah. Kajian Dass et al. (2022) membuat penilaian tentang keberkesanan sebuah program pemerkasaan terhadap peserta wanitanya, manakala Woo dan Khoo (2023) menelusuri inisiatif dan opsyen untuk mewujudkan

tempat tinggal dengan harga munasabah di bandaraya Pulau Pinang.

Kajian awal berkenaan PBT di Malaysia lebih kepada fungsi dan peranan utama PBT menyediakan kemudahan awam (Hussain, 1991). Beberapa kajian meneliti isu kecekapan perkhidmatan PBT (Din & Ngah, 2017; Ismail et al., 2020; Jusoh & Ahmad, 2009; Khalil & Adelabu, 2012; Manaf et al., 2018), manakala Manaf et al. (2023) dan Manaf et al. (2016) menarik perhatian kepada keperluan menjalankan libat urus dengan penduduk untuk menambahbaikkan perkhidmatan PBT. Kajian yang menyentuh isu-isu yang berkaitan dengan pelaksanaan program kemiskinan oleh PBT dalam pengurusan bandar agak terhad dan lebih tertumpu di DBKL (Abd Aziz et al., 2011; Md Tahir & Agus, 2003; Siwar, 2003; Tamizi et al., 2021). Mereka meneliti isu seperti kemudahan asas, pembangunan komuniti, krisis kewangan dan tahap kepuasan penduduk terhadap keadaan di PPR. Kajian berkenaan keadaan kemiskinan bandar di Kuala Lumpur oleh UNICEF Malaysia (2018, 2024) menggambarkan kelemahan tindakan pembasmian kemiskinan yang berkait dengan perkhidmatan perbandaran oleh DBKL. Kajian Woo dan Khoo (2025) tentang politik burocratik merupakan tajuk yang paling dekat dengan kajian ini. Mereka meneliti bagaimana reka bentuk dan pelaksanaan projek perumahan mampu milik Hijau E-komuniti di Pulau Pinang membayangkan penerimaan konsep kelestarian oleh pegawai terlibat.

Berdasarkan sorotan tentang kajian lepas ini, boleh disimpulkan bahawa kajian tentang tindakan PBT terhadap kemiskinan bandar lebih memberi perhatian kepada pengurusan PPR dan perkhidmatan yang disediakan oleh DBKL. Kajian lain ke atas PBT pula lebih menjurus kepada keefisienan perkhidmatan PBT dan kajian persepsi orang awam. Oleh itu, kajian ini terhadap tindakan pembasmian kemiskinan MBPJ merupakan suatu permulaan untuk mengisi kelompondangan ilmu empirikal berkenaan peranan PBT dalam menangani kemiskinan bandar di luar DBKL.

Banyak kajian di negara lain berkenaan kemiskinan bandar juga lebih menjurus kepada masalah setinggian dan isu tempat tinggal yang mampu dan selesa bagi golongan bawahan. Mengimbas balik penerbitan pada 50 tahun lepas, jurnal antarabangsa *Local government Studies* menjangka bahawa selain daripada isu perumahan, cabaran Kerajaan Tempatan untuk mempromosikan dasar dan amalan yang inklusif ke arah pengagihan sumber yang lebih saksama serta kelestarian bandar demi kesejahteraan warga yang di pingir masyarakat akan menjadi tajuk yang hangat pada masa yang akan datang (Avellaneda et al., 2024). Pada masa yang sama, konsep *governance* (tadbir urus) menjadi semakin diambil berat dalam bidang pentadbiran awam sejak 2010an, selepas pengenalan agenda *Millennium Development Goals* dan *Sustainable Development Goals* (Elliott et al., 2024). Sementara itu, pendekatan terhadap promosi pembangunan juga menitik-beratkan pembangunan keupayaan

(*capacity building*) sebagai cara untuk memastikan tadbir urus yang baik dan partisipasi berkesan penduduk dalam perancangan perbandaran. Kajian Vivier dan Sanchez-Betancourt (2023) untuk memahami keupayaan kerajaan tempatan untuk menjalankan libat urus dan interaksi dengan komuniti tempatan, mencapai kesimpulan bahawa tadbir urus yang bersifat partisipasi dan berkesan bergantung kepada tahap responsif kerajaan. Capano dan Oliveira (2025) yang telah membuat kajian kes tentang pelaksanaan di akar umbi tiga program sosial untuk warga miskin yang telah ditentukan oleh kerajaan persekutuan di Brazil juga menyimpulkan bahawa keupayaan penggubalan dasar yang mengambil kira kebolehan kerajaan tempatan untuk melaksanakannya adalah penting untuk mencapai keberkesanan program-program tersebut. Suatu kajian tentang usaha pegawai kerajaan tempatan di Filipina untuk menangani kemiskinan penduduk semasa wabak covid-19 mendapati bahawa kerjasama pegawai dengan badan sektor swasta (*public-private sector partnerships*) adalah kritikal untuk menolong golongan miskin di komuniti (Sobradil et al., 2025). Jadi trend antarabangsa semakin menganggap bahawa kerajaan tempatan mesti memainkan peranan sebagai *enabler* dan bukan semata-mata pembekal perkhidmatan, bahawa penduduk merupakan subjek dan bukan objek pembangunan (GHK Research and Training, 2001). Minat untuk meningkatkan keupayaan tadbir urus kerajaan tempatan untuk bertindak semakin bertambah. Kajian

ini cuba menyumbang terhadap isu ini dengan meneliti proses pelaksanaan PPKB oleh MBPJ dari segi tadbir urus.

Proses penggubalan dasar bersifat dinamik dan kompleks (Kingdon, 1995; Grindle & Thomas, 1991) dan biasanya berpunca daripada niat pemerintah untuk menyelesaikan suatu isu atau masalah tertentu di masyarakat. Namun, bagaimanakah pembuat dasar memastikan sebuah dasar

yang digubal pada peringkat kebangsaan boleh diturunkan ke peringkat bawah yang merupakan agen pelaksana? Dalam konteks kajian ini, KPKT cuba menggalakkan tadbir urus yang efisien dan baik di PBT yang bertabur di seluruh Semenanjung Malaysia melalui SPB-PBT, di antara pendekatan lain. MBPJ pula bertindak atas saranan KPKT dan juga pegawai di Kerajaan Negeri. Kajian ini menumpukan perhatian

Kerangka Konsep



Rajah 1. Kerangka Konsep Kajian Berkenaan Proses Pelaksanaan PPKB
Sumber: Adaptasi daripada Grindle dan Thomas (1991)

terhadap PPKB dan kepada proses di mana dasar diterjemahkan kepada tindakan dan program PBT yang melibatkan perancangan dan penjalanan program sehingga tahap penilaian program tersebut. Kerangka konsep yang dipaparkan dalam Rajah 1 diadaptasikan daripada Grindle dan Thomas (1991). Ia membayangkan tahap *selepas* dasar telah diputuskan pada peringkat persekutuan dan negeri, di mana PBT merupakan pelaksana dasar berkenaan. Ia digunakan untuk mengupas pengoperasian dasar oleh PBT secara sistematik dari tahap pembangunan, pelaksanaan, sehingga penilaian program.

Secara ideal, proses pelaksanaan program (seiring dengan pelaksanaan dasar) berlangsung dalam bentuk kitaran. Penilaian yang merupakan aktiviti terakhir dalam proses pelaksanaan program dianggap boleh mengumpulkan maklumbalas yang berguna untuk menambahbaikkan rekabentuk program sebelum ia ditawarkan semula lagi. Pada setiap tahap penjalanan program, pelbagai masalah dan isu boleh timbul dan kaedah yang terbaik perlu ditentukan untuk mengatasi masalah berkenaan supaya objektif dasar boleh dicapai (Kingdon, 1995; Lester & Joseph, 2000).

Rajah 1 juga menunjukkan bahawa proses pelaksanaan program mengalir dari bawah ke atas (*bottom-up*), di mana pada setiap tahap, sebaik mungkin maklumbalas diperolehi daripada pemegang taruh termasuk kumpulan sasaran untuk memastikan program yang dijalankan itu berkesan untuk mencapai objektif yang telah ditetapkan dan memanfaatkan

golongan terbabit. Pendekatan *bottom-up* ini diperkenalkan sejak 2000 bila Agenda Tempatan 21 (LA21) dilaksanakan. Ia bertujuan untuk memastikan suara masyarakat setempat diambil kira dalam proses perancangan dan pembangunan perbandaran. MBPJ juga perlu menjalankan libat urus untuk mendapat maklum balas daripada pemegang taruh dan memperolehi kerjasama dan sumbangan daripada rakan strategik dalam penyediaan programnya.

REKABENTUK PENYELIDIKAN

Kajian ini menggunakan pendekatan kualitatif untuk menjalankan kerja lapangan dan analisis data. Maklumat berkenaan proses pentadbiran yang dilaksanakan oleh MBPJ dikumpul agar tatacara yang terlibat untuk menyediakan dan melaksanakan PPKB boleh diteliti, serta kekangan dan cabaran yang timbul semasa MBPJ menjalankan program boleh dikenal pasti. Metod pengumpulan maklumat adalah temubual mendalam secara berstruktur, pengumpulan dokumen-dokumen rasmi dan pemerhatian turut serta pada ketiga-tiga peringkat pelaksanaan PPKB. Ini kerana kajian ini juga memanfaatkan pengalaman pengarang kedua sebagai kakitangan MBPJ selama 16 tahun yang mempunyai pengalaman bertugas di Bahagian Khidmat Komuniti Dan Pembangunan Modal Insan di Jabatan Pembangunan Kemasyarakatan.

Tiga orang pegawai MBPJ yang terlibat dengan perancangan dan pelaksanaan PPKB telah ditemuduga secara mendalam berdasarkan soalan berstruktur. Pengkaji juga bertemuduga dengan seorang Ahli

Dewan Undangan Negeri (ADUN) Selangor iaitu YB Halimey Abu Bakar dan seorang Ahli Majlis MBPJ iaitu En Ahmad Akhir. Mereka merupakan pemimpin tempatan yang menyelia kawasan yang diduduki ramai warga miskin bandar. Temubual dengan responden terpilih ini adalah untuk mendapatkan maklumat mengenai prosedur dan proses penyediaan dan penjalanan PPKB oleh MBPJ. Tema soalan temubual utama termasuk cara dan proses penentuan dan pengenpastian individu sebagai penerima bantuan, pembangunan dan peyemakan semula program pembasmian kemiskinan, tatacara penjalanan PPKB, kekuatan dan kelemahan program, dan impak PPKB terhadap kumpulan sasaran.

Pengkaji juga mengumpulkan dokumen-dokumen rasmi seperti minit mesyuarat Jawatankuasa Kecil PPKB, laporan-laporan tahunan dan Pelan Strategik MBPJ, pekeliling KPKT, dokumen SPB-PBT, dan angka-angka statistik tentang kadar kemiskinan di Petaling Jaya. Pemerhatian juga dilakukan semasa PPKB berlangsung.

Maklumat dan dokumen yang telah dikumpulkan dari kerja lapangan disusun berdasarkan pendekatan *thematic analysis* supaya data temuduga dan dokumen boleh dikupas dan diteliti secara sistematik dan mendalam. Ia mempermudah analisis dan sintesis secara komprehensif untuk mencapai suatu gambaran menyeluruh tentang tiga tahap proses penjalanan program iaitu, pembangunan, pelaksanaan dan penilaian PPKB. Artikel ini seterusnya menyampaikan dapatan kajian secara teratur mengikut tiga tahap tersebut, iaitu pembangunan, pelaksanaan dan penilaian.

DAPATAN KAJIAN

Pembangunan Program

MBPJ melaksanakan PPKB untuk mematuhi dasar yang ditetapkan oleh KPKT dalam usaha untuk menyumbang terhadap pembangunan bandar yang saksama dan inklusif. Usaha itu bermula pada 2007, apabila Jabatan Perancangan Pembangunan di MBPJ bertindak sebagai urusetia untuk menyelaras pengagihan peruntukan PPKB daripada KPKT. Untuk tujuan tersebut, Bahagian Perancangan Strategik dan Program Khas di bawah jabatan tersebut dipertugaskan untuk menyediakan dan melaksanakan pelan tindakan. Untuk mengagihkan peruntukan KPKT, MBPJ perlu mengenal pasti isi rumah yang layak untuk menerima bantuan berkenaan di kawasannya. Jadi suatu bancian ke atas warga miskin di kawasan MBPJ dijalankan berasaskan Pendapatan Garis Kemiskinan pada 2008 (MBPJ, 2008). Berdasarkan maklumat bancian, MBPJ telah menyampaikan bantuan dalam bentuk sumbangan kewangan untuk menampung pelbagai perbelanjaan isi rumah miskin seperti sewa rumah, pengangkutan ke sekolah, perubatan dan penjagaan anak (MBPJ, 2008; Suzana, temuduga, April 20, 2023).

Pada 2008, untuk memenuhi keperluan indikator yang tertera dalam SPB-PBT, MBPJ mula membangunkan PPKB sendiri di samping mengagihkan peruntukan KPKT dalam bentuk bantuan kewangan. Peruntukan PPKB daripada KPKT berhenti pada 2009 dan setiap PBT disaran untuk membangunkan PPKB masing-masing.

Selepas perubahan ini, PPKB yang mula-mulanya diuruskan oleh Jabatan Perancangan Pembangunan seterusnya dipindah ke Jabatan Pembangunan Kemasyarakatan dan diletak di bawah Bahagian Pembangunan Komuniti, Sosial dan Belia pada 2011. Seterusnya pada 2014 nama bahagian tersebut diubah dan menjadi Bahagian Khidmat Komuniti dan Pembangunan Modal Insan (sila rujuk kepada Jadual 1). Pemindahan Jabatan dan penamaan semula Bahagian yang dipertugaskan untuk menyediakan dan melaksanakan PPKB membayangkan evolusi perspektif pentadbiran MBPJ terhadap sifat dan fungsi program tersebut (Zaini A., temuduga, Mei 20, 2023).

Berdasarkan Jadual 1, angka-angka bajet MBPJ yang diperuntukkan kepada PPKB dari tahun 2008 sehingga 2024 menunjukkan jumlah peruntukan yang semakin bertambah. Daripada bajet sebanyak RM100,000 setahun bagi PPKB pada permulaan yang disalurkan kepada Jabatan Perancangan Pembangunan, jumlah peruntukan meningkat ke RM240,000 setahun pada 2011 sehingga 2015 bila tanggungjawab pelaksanaan PPKB dialih ke Jabatan Pembangunan Kemasyarakatan. Peruntukan terus bertambah selepas itu sehingga RM400,000 setahun pada 2019, sebelum ia dikurangkan ke RM300,000 setahun pada tempoh 2020-2024. Evolusi jumlah peruntukan ini menunjukkan komitmen MBPJ yang meningkat terhadap PPKB, namun juga permintaan yang semakin bertambah daripada golongan miskin. Oleh kerana kebatasan peruntukan, MBPJ menghadkan pemilihan penerima bantuan

kepada individu yang telah berdaftar dalam pangkalan data sistem PPKB sahaja.

Dari segi evolusi rekabentuk program, MBPJ mula-mulanya terus mengubahsuaikan beberapa program sosial sediaada supaya golongan sasaran program ditumpukan kepada warga miskin untuk menjadikan program itu sebagai PPKB. Pada masa yang sama, MBPJ juga mengadakan sesi libat urus dengan golongan sasaran dan berdasarkan maklumbalas tentang keperluan mereka (Lee L. S., temuduga, November 30, 2023) PPKB yang baru seterusnya dibangunkan. Seperti telah diterangkan, pendekatan konsultasi dengan pihak berkepentingan untuk mengumpulkan *input* agar membangunkan program secara *bottom-up* telah digunapakai oleh MBPJ sejak 2000. Pendekatan ini membolehkan MBPJ lebih memahami keadaan semasa dan isu kemiskinan dari perspektif warga kurang kemampuan kewangan dan menentukan intervensi yang paling sesuai agar bantuan daripada PPKB memenuhi keperluan golongan sasaran.

Kakitangan MBPJ juga perlu membangunkan pangkalan data berkenaan isi rumah yang memerlukan bantuan. Mereka mengedarkan borang melalui ketua-ketua blok rumah pangsa dan juga dengan meletak ke dalam peti surat dari rumah ke rumah. Notis pemberitahuan juga ditampal di tempat awam. Staf MBPJ juga mendapat bantuan daripada Ahli Majlis yang telah ditugaskan untuk menyelia kawasan tertentu. Seterusnya, kakitangan perlu turun padang untuk menjalankan bancian, mengumpulkan maklumat seperti bukti pendapatan isi rumah dan juga cadangan program daripada

Jadual 1
Peruntukan MBPJ Kepada PPKB dan Jabatan Pelaksana (2008 – 2024)

Tahun	Bajet Tahunan (RM)	Jabatan	Bahagian
2008–2009	100,000	Jabatan Perancangan Pembangunan	Bahagian Perancangan Strategik dan Program Khas
2010	100,000		Bahagian Pengurusan Maklumat dan Korporat
2011–2013	240,000	Jabatan Pembangunan Kemasyarakatan	Bahagian Pembangunan Komuniti, Sosial dan Belia
2014–2015	240,000		Bahagian Khidmat Komuniti dan Pembangunan Modal Insan
2016	285,000		
2017–2018	289,000		
2019	400,000		
2020	300,000		
2021–2024	300,000	Jabatan Pembangunan Masyarakat	

Sumber: Dikumpul daripada Laporan Tahunan MBPJ (MBPJ, 2008–2022), Ucapan Bajet MBPJ (Datuk Bandar Majlis Bandaraya Petaling Jaya, 2019–2023) dan Suzana O. (temuduga, April 20, 2023)

golongan sasaran. Bancian diperlukan untuk mengenal pasti individu dan isi rumah yang layak menjadi penerima bantuan agar didaftarkan dalam sistem pangkalan profail PPKB. Oleh kerana bilangan kakitangan MBPJ yang terlibat dengan PPKB itu terhad, pendaftaran warga miskin dalam sistem profail PPKB tidak dapat dijalankan secara lebih lengkap dan menyeluruh.

Mesyuarat Jawatankuasa Kecil PPKB berfungsi sebagai tapak pembangunan PPKB. Ahli Jawatankuasa Kecil PPKB terdiri daripada pegawai MBPJ yang bertanggungjawab terhadap PPKB, pemimpin setempat seperti ADUN dan Ahli Majlis MBPJ serta wakil rakan strategik. Melalui gerak kerja Jawatankuasa Kecil PPKB, MBPJ menjalin kerjasama dengan wakil daripada rakan strategik seperti Lembaga Zakat, Jabatan Kebajikan Masyarakat dan Pejabat Pendidikan pada

peringkat daerah serta Kolej Komuniti setempat yang dijemput sebagai anggota Jawatankuasa Kecil tersebut. Jawatankuasa Kecil PPKB menetapkan kriteria kelayakan penyertaan PPKB, mempertimbangkan program yang dicadangkan oleh golongan sasaran, serta mendapat persetujuan tentang bentuk kerjasama dengan rakan strategik. Jawatankuasa juga perlu menangani sebarang masalah berkaitan dengan isu politik atau teknikal yang timbul untuk mencari penyelesaian (Halimey Abu Bakar, temuduga, Jun 3, 2023). Sebarang keputusan yang dibuat oleh Jawatankuasa Kecil PPKB perlu dibentangkan di mesyuarat Jawatankuasa Perkhidmatan Komunikasi dan Korporat MBPJ untuk disahkan dan seterusnya dilaporkan kepada Mesyuarat Penuh Majlis untuk kelulusan dan pelaksanaan.

Pelaksanaan Program

Dari segi pelaksanaan program, kerjasama MBPJ dengan rakan strategik seperti Pejabat Pendidikan Daerah dan kolej komuniti merupakan aspek penting untuk memudahkan pelaksanaan jenis PPKB tertentu yang berbentuk pendidikan atau latihan kemahiran vokasional. Sebagai contoh, pensyarah daripada kolej komuniti telah membantu menyediakan isi kandungan dalam pembangunan modul latihan dan seterusnya menjadi tenaga pengajar bagi program tersebut. Kerjasama seperti ini mempermudah usaha MBPJ untuk menjalankan PPKB bersifat latihan kemahiran dan pendidikan. Ia juga memberi ruang kepada rakan strategik MBPJ agar menyertai usaha membasmi kemiskinan bandar dalam komuniti secara signifikan.

MBPJ juga mengalu-alukan tajaan pihak swasta seperti pengurus hotel, syarikat pemaju dan ahli peniaga. Sumbangan mereka baikpun dalam bentuk barangan keperluan seperti tepung, beras, roti dan gula, ataupun peralatan seperti mesin jahitan dibuat sebagai inisiatif CSR (*corporate social responsibility*) pihak terbabit. Sumbangan dalam bentuk barangan keperluan asas diuruskan oleh unit *food bank* di bawah Jabatan Perancangan Pembangunan MBPJ. Memandangkan peruntukan MBPJ terhadap PPKB yang agak terhad berbanding dengan permintaan, sumbangan yang diberi oleh pihak swasta adalah penting untuk menampung kebatasan kewangan yang tidak mencukupi. Ini merupakan suatu kelebihan dari segi pendekatan yang diambil oleh MBPJ.

PPKB yang ditawarkan oleh MBPJ boleh dikategorikan kepada tiga jenis, iaitu, program kebajikan, pendidikan, dan penjaan pendapatan. Program kebajikan membantu golongan miskin dengan menyediakan bantuan dan sokongan kewangan secara langsung. Antara program kebajikan ialah penyampaian sumbangan kewangan sempena sambutan perayaan utama (Hari Raya, Tahun Baru Cina dan Deepavali) kepada keluarga miskin, golongan orang kurang upaya dan juga warga emas yang memerlukan. Program pendidikan mengadakan kelas bimbingan pelajaran bagi murid-murid dari keluarga miskin untuk meningkatkan prestasi pelajaran mereka. Program bimbingan tentang cara menjawab soalan peperiksaan dianjurkan di sekolah terpilih yang berada di lokasi dekat perumahan kos rendah. MBPJ juga memberi bantuan terhadap pembelian peralatan keperluan sekolah, dan mengadakan majlis penghargaan demi pelajar yang mencapai keputusan cemerlang dalam peperiksaan SPM.

Program penjaan pendapatan bertujuan untuk meningkatkan kemahiran kumpulan sasaran dan seterusnya peluang pekerjaan mereka agar keadaan kewangan mereka bertambah baik dalam jangka masa sederhana (Ahmad Akhir, temuduga, Jun 3, 2023). Antara program yang dianjurkan adalah kursus komputer, latihan kemahiran khusus bagi suri rumah seperti bengkel masakan, jahitan, kraftangan, dan urutan bersalin. Bagi golongan belia, jenis program kemahiran yang diadakan adalah seperti memperbaiki penghawa dingin, servis

motor, dan menggunting rambut. Bengkel bagi golongan orang kurang upaya juga dianjurkan untuk membina keupayaan berdikari melalui bengkel kraftangan. Melalui gabungan pelbagai pendekatan program-program ini, MBPJ berusaha untuk secara holistik mengatasi isu kemiskinan bandar dan membina imej MBPJ sebagai PBT yang prihatin dan mesra rakyat.

Jumlah keluarga miskin berdaftar dengan MBPJ pada Disember 2008 adalah 256 isi rumah, dengan peruntukan kewangan daripada KPKT berjumlah RM266,844 (MBPJ, 2008). Angka keluarga sasaran bertambah kepada 675 isi rumah miskin pada Julai 2023 manakala peruntukan kewangan daripada MBPJ cuma RM300,000 setahun (Datuk Bandar MBPJ, 2022). Pecahan peruntukan kewangan kepada ketiga-tiga kategori program pada 2023 adalah seperti berikut: program kebajikan berjumlah RM102,900 diagihkan kepada 310 isi rumah keluarga, program pendidikan berjumlah RM100,000 memanfaatkan 420 anak keluarga miskin, dan akhirnya, program penajaan pendapatan berjumlah RM97,100 melibatkan 100 orang peserta (Zaini A., temuduga, Mei 20, 2023). Semasa memilih penerima bantuan yang terhad, keutamaan diberi kepada ketua isi rumah yang berkeluarga besar, individu layak yang baru berdaftar, dan juga mereka yang tidak menerima sebarang bantuan daripada agensi zakat atau Jabatan Kebajikan Masyarakat.

Penilaian Program

Pejabat urusetia PPKB dikehendaki menyediakan laporan penilaian program

berkenaan hasil dan impak program selepas penjalanan sebuah program. Laporan penilaian ini disediakan berdasarkan maklum balas yang telah dikumpulkan daripada peserta dan maklumat lain seperti bilangan peserta program dan tahap pencapaian peserta selepas menyertai program. Laporan seterusnya dibentangkan dan dibincang dalam mesyuarat Jawatankuasa Kecil PPKB, dan susulan perbincangan tersebut, kakitangan urusetia PPKB cuba membuat penyesuaian terhadap program berdasarkan keputusan yang telah dibuat.

Seperti diterangkan di bahagian latar belakang, MBPJ telah menyediakan pelbagai PPKB mengikut dasar pembasmian kemiskinan yang dihuraikan dalam DPN dan NUA. Prestasi perkhidmatan mereka juga dinilai oleh KPKT dalam kerangka SPB-PBT. Agihan markah di antara empat kriteria yang dinilai adalah 30% bagi pengurusan, 35% bagi perkhidmatan-perkhidmatan teras, 15% tentang pengurusan pelanggan dan akhirnya, 20% diperuntukkan kepada dua aspek iaitu penyertaan komuniti dan pandangan penduduk (KPKT, 2008). Penelitian kerangka penilaian SPB-PBT mendapati bahawa keutamaan diberi kepada fungsi hakiki tradisional yang dijalankan oleh PBT. Perkhidmatan-perkhidmatan teras PBT tetap diberi jumlah markah 35% sepanjang tempoh kajian ini.

PPKB sebenarnya dinilai di bawah sub-kriteria “penglibatan komuniti” yang merupakan salah satu bahagian daripada kriteria keempat dan diberi wajaran markah 10%. Sub-kriteria “penglibatan komuniti” mengandungi 33 indikator, dan indikator

yang relevan bagi PPKB berbunyi “program-program meningkatkan kualiti hidup warga miskin seperti program motivasi, keusahawanan dan kelas bimbingan”, yang cuma membawa 0.3% dalam penggredan. Dua kesimpulan boleh dicapai daripada penelitian ungkapan dan permarkahan indikator tersebut. Yang pertama, tumpuan lebih ditujukan kepada “penglibatan komuniti” daripada pembasmian kemiskinan, dan kewujudan usaha untuk “meningkatkan kualiti hidup warga miskin” sudah mencukupi untuk menerima markah penuh. Dengan lain kata, PBT digalakkan untuk melibatkan komuniti setempat dalam program-program yang dianjurkan oleh mereka. Kedua, pembasmian kemiskinan nampaknya tidak dianggap sebagai tugas utama PBT, memandangkan bahawa hanya 0.3% diperuntukkan kepada kriteria tersebut. Urusetia KPKT menjalankan semakan berkala atas kerangka penilaian SPB-PBT pada 2013 dan 2021. Walaupun peningkatan kualiti hidup warga miskin tetap terletak di bawah sub-kriteria “Penglibatan Komuniti”, wajaran markah indikator terbabit dinaik kepada 0.50 pada tahun 2013 (KPKT, 2013) namun diturunkan kepada 0.25 pada 2021 (KPKT, 2021).

Dari mulanya sejak 2008, MBPJ selalunya mendapat markah penuh bagi indikator-indikator di bawah sub-kategori “penglibatan komuniti”. Dari perspektif kerangka penilaian SPB-PBT, pencapaian ini mengiktiraf komitmen dan usaha MBPJ untuk menyampaikan perkhidmatan yang cemerlang. Namun, kerangka SPB-PBT jelas menganggap pelaksanaan PPKB

sebagai suatu tindakan simbolik mesra rakyat dan bukan suatu usaha serius untuk mengurangkan kadar kemiskinan bandar. Ini menerangkan mengapa penilaian yang dijalankan oleh MBPJ juga tidak melibatkan usaha tegas untuk mengukur keberkesanan program dari segi pengurangan keadaan kemiskinan bandar.

PERBINCANGAN DAPATAN KAJIAN

Tiga rumusan boleh dicapai berdasarkan dapatan kajian yang dikumpulkan daripada tiga peringkat pelaksanaan PPKB tersebut. Pemerhatian pertama berkenaan kekuatan dari segi pelaksanaan PPKB. MBPJ menyedari kebatasan sumber kewangan dan tenaga kerja yang dihadapi dalam usahanya untuk meningkatkan kualiti hidup warga miskin di kawasanya dan telah menggunakan beberapa pendekatan untuk menambah impak dan keefisienan usahanya. Salah satu langkah melibatkan penyelarasan usahanya dengan rakan strategik daerah supaya memilih peserta yang belum lagi mendapat bantuan daripada jabatan atau agensi kerajaan lain, atau menawarkan bentuk bantuan yang paling sesuai untuk memenuhi keperluan isi rumah berkaitan. Tambahan pula, MBPJ juga menggalakkan tajaan CSR dari pihak swasta untuk menjalankan sesetengah PPKB yang disediakannya, dan bekerjasama dengan institusi tertentu untuk menawarkan program latihan kemahiran dan pendidikan. Selain itu, MBPJ juga menjalankan libat urus dengan pihak pemegang taruh semasa program disediakan dan dilaksanakan yang

membolehkan maklumbalas dan cadangan yang sesuai diambilkira demi mencapai impak yang optimum. Sebenarnya, kerangka SPB-PBT memberi cukup perhatian yang terperinci kepada aspek ini yang berkaitan dengan prinsip LA21. Ini menunjukkan kebolehan pegawai MBPJ untuk menjalankan tugas mereka dengan cekap.

Di sebaliknya, aspek utama yang menunjukkan kelemahan dalam proses pelaksanaan PPKB adalah reka bentuk sistem pangkalan profil peserta PPKB. Pertamanya, warga miskin sendiri tidak boleh mendaftar diri dalam talian dengan dokumen pembuktian yang diperlukan. Ahli Majlis perlu membuat edaran borang dan dengan kekangan tenaga kakitangan yang terhad, bukan semua keluarga dalam golongan sasaran yang memerlukan bantuan tersenarai sebagai peserta PPKB berdaftar. Seterusnya, pendaftaran profil peserta PPKB juga tidak meminta butiran maklumat peserta seperti taraf pendidikan dan minat peserta terhadap jenis latihan agar mempermudah proses pemilihan calon daripada senarai dalam sistem profil PPKB sebagai peserta program tertentu. Tambahan pula, sistem profil PPKB juga mengandungi maklumat terhad berkenaan mereka yang telah menyertai PPKB dan tidak mengemaskini perubahan taraf pendapatan mereka secara berkala yang boleh mempermudah tindakan susulan dan pemantauan prestasi program. Wujudnya dari semasa ke semasa juga masalah teknikal berkenaan kemasukan data, pengesahan data, pengemaskinian data, pembersihan data dan sebagainya sehingga wujud maklumat yang diragui.

Akhirnya, berdasarkan analisis ketiga-tiga peringkat pelaksanaan, pengkaji merumuskan bahawa penilaian yang dijalankan oleh MBPJ terhadap PPKB tidak menitikberatkan keberkesanan program dari segi pembasmian kemiskinan. Pertamanya, pelaporan dan pembuktian yang dibuat oleh MBPJ lebih tertumpu kepada acara PPKB yang telah diadakan, jumlah dana yang diagihkan dan nombor peserta yang telah memanfaatkan PPKB yang dianjurkan. Seterusnya, tiada langkah-langkah pemantauan spesifik terhadap impak program kepada peserta PPKB, dan data seperti rekod pendapatan dan pencapaian peserta selepas menyertai PPKB juga tidak dikemaskini dalam sistem pangkalan profil PPKB. Akhirnya, kajian mendapati bahawa PPKB dilaksanakan setiap tahun secara *one-off* dan tiada kesinambungan dari segi tindakan susulan. Kebatasan ini jelas dibayangkan oleh keadaan sistem pangkalan profil peserta PPKB yang mengandungi maklumat terhad berkenaan mereka yang telah menyertai PPKB. Tanpa kesinambungan bantuan kepada peserta PPKB sehingga mereka mencapai tahap berdikari dan keluar dari kemiskinan, impak PPKB yang mampan tidak terjamin. Ini menunjukkan bahawa penganjuran PPKB tidak mengambil perspektif berjangka panjang agar memastikan kesan yang positif dan lestari terhadap golongan yang disasarkan berkekalan.

SUMBANGAN TEORETIKAL

Kajian ini telah menganalisis bagaimana suatu dasar persekutuan yang digubal oleh

KPKT mempengaruhi pelaksanaan PPKB di MBPJ biarpun PBT terletak di bawah bidang kuasa Kerajaan Negeri. Dengan menyelami selok-belok proses pelaksanaan PPKB di MBPJ, kajian ini memberi cerapan kepada isu dan cabaran yang timbul bila penjawat awam cuba mengemudikan arahan dan peraturan, mengagihkan sumber yang terhad, menyelenggara pengaruh peringkat kerajaan atasan serta berunding dengan pihak pemegang taruh dan rakan strategik. Untuk menjalankan programnya, PBT kini di Malaysia bukan sahaja perlu mematuhi arahan dan jangkaan daripada Kerajaan Persekutuan dan Negeri bahkan juga menangani pelobian, desakan dan kerjasama dengan penduduk dan pemegang taruh untuk mendapat partisipasi, sokongan bahkan sumbangan. Keadaan boleh menjadi lagi rumit jika Kerajaan Persekutuan dan Negeri dikuasai oleh parti politik yang bersaing, seperti dibincang dalam kajian Woo dan Khoo (2025), sehingga Kerajaan Negeri di Pulau Pinang terpaksa membangunkan projek perumahan mampu milik sendiri. Keadaan ini yang memerlukan pentadbir bandar berunding dengan pengaruh daripada pelbagai pihak dan peringkat adalah serupa di negara lain, suatu permasalahan yang ditaksir menggunakan lensa konsep “tadbir urus bandar” (*urban governance*) (Da Cruz et al., 2019).

Satu isu berkenaan tadbir urus bandar yang timbul daripada dapatan kajian ini adalah setakat mana penggunaan indikator sebagai alat penilaian untuk memantau prestasi penyampaian perkhidmatan merupakan suatu instrumen dasar yang

berkesan. Sebenarnya amalan MBPJ tentang PPKB boleh ditinjau sebagai bukti “kejayaan” SPB-PBT yang menentukan apa-apa tanggungjawab yang perlu diberi keutamaan oleh PBT dan setakat mana atau bagaimana. Ini merupakan tujuan penjawat awam di Putrajaya yang mewujudkan suatu kerangka dan piawai seragam yang perlu diikuti oleh para pentadbir PBT.

Di sebaliknya, Caprotti et al. (2017) telah mempersoalkan implikasi tentang kecenderungan antarabangsa untuk menganggap kota bandar sebagai suatu entiti yang boleh diukur (“*city as a ‘measurable’ entity*”, p. 368) semata-mata dengan indikator, yang boleh ditanggapi dengan secukupnya melalui perangkaan dan dikuasai melalui teknologi baru. Konsep antarabangsa seperti agenda kesebelas SDG (*sustainable development goals*) merupakan suatu contoh terkini dan mewakili usaha PBB untuk membina piawai tentang dasar perbandaran yang digalakkan. Usaha penyeragaman dan pewujudan indikator merupakan suatu strategi yang membolehkan pemantauan dijalankan tentang progres yang telah berlaku di semua negara. Akibatnya, tadbir urus bandar juga dianggap sebagai amalan yang boleh menyelesaikan masalah bandar melalui semata-mata pendekatan teknokratik tanpa pertimbangan kepada kesan atau keadaan spesifik penduduk. Persoalannya adalah samada tumpuan kepada apa-apa yang boleh diukur boleh menyebabkan pengabaian terhadap aspek penting lain yang tidak dapat diukur dan apa implikasi daripada kecenderungan sebegini.

KESIMPULAN

Peranan PBT untuk terlibat dalam usaha pembasmian kemiskinan bandar sebenarnya bergantung kepada konteks tempatan. Menurut suatu survei di antara pegawai kerajaan yang meliputi 45 negara di seluruh dunia, cabaran utama berkenaan tadbir urus yang dihadapi adalah isu kebatasan kewangan (Da Cruz et al., 2019). Secara kebiasaan, tanggungjawab hakiki PBT tetap merupakan perkhidmatan perbandaran teras. Namun kemiskinan bandar adalah suatu isu penting yang perlu diatasi untuk membangunkan suasana perbandaran yang inklusif dan sejahtera bagi penduduknya serta merangsang pertumbuhan ekonomi negara yang lebih saksama. Dengan kadar pembandaran nasional yang melebihi 75% di Malaysia, peranan PBT untuk menangani kemiskinan bandar perlu dipertingkatkan supaya usaha kerajaan untuk membantu isi rumah yang memerlukan boleh menjadi lebih berkesan. Walaubagaimanapun pertimbangan perlu dibuat untuk mengambilkira perbezaan kemampuan kewangan setiap PBT dan kawasan masing-masing, biarpun MBPJ yang merupakan sebuah PBT yang mempunyai sumber kewangan yang kukuh juga menemui kebatasan dalam usahanya untuk mengatasi kemiskinan yang berlaku di kawasannya. Sebagai pihak berkuasa yang terdekat dengan penduduk, PBT boleh mengubahsuaikan PPKB mengikut keadaan dan keperluan setempat, dan memberi ruang untuk mobilisasi sumber barangan dan kemahiran daripada pihak swasta dan komuniti kejiranan.

Sebenarnya usaha PBT untuk membasmi kemiskinan tidak semestinya dijalankan secara berasingan daripada pengamalan fungsi hakikinya dengan bajet tersendiri. PBT boleh mengintegrasikan dimensi *pro-poor* bila menyediakan perkhidmatan terasnya. Sebagai contoh, PBT boleh memberi akses percuma kepada individu dari isi rumah yang miskin untuk menikmati kemudahan yang di bawah pentadbirannya seperti perpustakaan dan kolam renang. Memandangkan sifat multidimensi permasalahan kemiskinan, PBT boleh juga menggalakkan golongan ini untuk menyertai program pendidikan tentang tema yang tiada perkaitan secara langsung kepada aspek kewangan seperti pemakanan, pengamalan gaya hidup sihat dan pembelajaran sepanjang hayat.

Melalui pendekatan ini, PBT boleh memperluaskan keperihatinan terhadap golongan kurang kemampuan kewangan dari segi peningkatan kualiti hidup secara menyeluruh dan bukan hanya secara khusus melalui PPKB sahaja. Berdasarkan penemuan daripada kajian ini, kalau KPKT mahu menggalakkan PBT agar mengambilkira pendekatan ini, KPKT perlu mengubahsuaikan kerangka penilaian SPB-PBT supaya membayangkan jangkaan baru ini. Pelaksanaan pendekatan holistik begini menyerupai integrasi sistemik pendekatan LA21 yang telah menjadi kebiasaan dalam tatacara MBPJ dan PBT lain secara keseluruhan.

Penyelidikan ini telah menumpukan skop kajiannya kepada penelitian proses pelaksanaan program PPKB. Ia tidak

membuat penilaian secara khusus tentang keberkesanan suatu PPKB spesifik atau membandingkan keberkesanan di antara PPKB yang mengambil pendekatan berbeza. Tambahan pula, kajian juga boleh dibuat tentang keberkesanan atau kesan SPB-PBT yang juga menilai aspek amalan lain oleh PBT seperti pengurusan dan perkhidmatan teras. Diharap kajian ini boleh memberi inspirasi kepada sarjana lain untuk mengkaji aspek lain tentang PPKB yang telah dilaksanakan oleh MBPJ atau usaha lain yang dibuat oleh PBT lain untuk meningkatkan prestasinya.

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Travel Behaviour and Mobility Constraints among Older Adults in the Klang Valley, Malaysia

Mohamad Sidik Mahir, Abdul Rais Abdul Latiff*, and Saidatulakmal Mohd

School of Social Sciences, Universiti Sains Malaysia, 11800 Gelugor, Penang, Malaysia

ABSTRACT

Older adults' mobility is a cornerstone of quality of life, social inclusion, and active aging. Within widely used quality-of-life frameworks, mobility is recognised as one of the key dimensions shaping independence and well-being. Yet, limited empirical evidence exists on how mobility is shaped and constrained in rapidly urbanising contexts such as Malaysia. This study examines weekly travel frequency and its determinants among 497 older adults (aged 60+) in the Klang Valley, Malaysia. Using an ordered logit model, the analysis shows that gender, age, income, education, ethnicity, vehicle ownership, and health conditions significantly influence travel frequency. Male, younger, healthier, and financially better-off older adults travel more frequently, while chronic illness, mobility difficulties, limited financial resources, and advanced age act as constraints. Interestingly, education is negatively associated with mobility, reflecting the substitution of physical trips with digital solutions such as online shopping and telehealth. These findings highlight widening disparities in travel opportunities and the need for inclusive, health-sensitive, and gender-responsive transport policies. Strengthening Transit-oriented Development (TOD) by integrating housing, services, and public transport within walkable catchment areas offers a concrete pathway to reduce barriers, enhance accessibility, and support active ageing as Malaysia transitions into an aged nation by 2030.

Keywords: Active ageing, determinants of mobility, older adults, travel frequency, transit-oriented development (TOD)

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E-mail addresses:

muhdsidik@yahoo.com (Mohamad Sidik Mahir)

abdulrais@usm.my (Abdul Rais Abdul Latiff)

eieydd@usm.my (Saidatulakmal Mohd)

* Corresponding author

INTRODUCTION

The rapid growth of the older adults population has become a defining demographic trend of the 21st century. Globally, the number of individuals aged 60 and above surpassed the population of children under five in 2020, marking an unprecedented demographic shift (United

Nations Department of Economic and Social Affairs, Population, 2020). While this global trend is significant, its implications are particularly pressing in developing countries, where the pace of aging is faster than in advanced economies (Villena-Sanchez & Boschmann, 2022). Malaysia is one such country currently experiencing this transition. The 2020 Population and Housing Census estimated that 3.8 million Malaysians, or 11.1% of the total population, were aged 60 and above. This proportion is expected to rise to nearly one-fifth of the population (19.8%) by 2040, indicating that Malaysia is on the cusp of becoming an aged nation (Ismail et al., 2017; Population and Housing Census of Malaysia, 2020).

This demographic shift has wide-ranging implications, particularly for healthcare systems, social protection, and mobility. Among these, mobility is crucial because it directly influences the ability of older adults to remain independent, socially connected, and engaged in their communities. In Malaysia, older adults frequently travel for purposes such as medical appointments, shopping, social gatherings, and religious activities (Borowska-Stefańska et al., 2020; Wong et al., 2017). Understanding the travel behavior of this population group is therefore essential, as it is closely tied to their quality of life and ability to age actively. This relationship is also reflected in the EuroQol (EQ-5D) framework, which identifies mobility as one of the five core dimensions of health-related quality of life (Devlin & Brooks, 2017). In this sense, the ability to travel beyond the home is not only a matter of transport

accessibility but also a critical determinant of independence, social participation, and overall well-being in later life. While policies such as the National Policy for Older Persons (Ministry of Women, Family and Community Development, 2011) aim to promote active participation in society, effective implementation requires evidence-based insights into the daily mobility patterns of older adults individuals.

The challenge is particularly pronounced in the Klang Valley, Malaysia's most urbanised and densely populated region. Home to more than 8 million residents, the Klang Valley is the country's economic engine but also its most congested urban corridor (Department of Town and Country Planning, 2017). Traffic congestion remains a persistent issue, with residents reportedly spending more than 500 hours annually, or over 40 hours each month, in traffic jams (Kamarudin et al., 2023). Despite significant investment in public transport infrastructure, reliance on private vehicles continues to dominate: as of 2018, nearly 80% of trips were made using private vehicles, compared to only 20% by public transport (Isham et al., 2022). This reliance is reinforced by Malaysia's high rate of vehicle ownership, with annual vehicle sales exceeding 500,000 units between 2010 and 2022 and peaking at over 720,000 units in 2022 (Rahman et al., 2023). For older adults residents, such conditions create unique mobility challenges, as they may face physical, financial, and health constraints that limit their ability to drive, while public transport may not always be accessible or senior-friendly.

Recognising these issues, both federal and state governments have introduced initiatives to enhance transport accessibility and urban liveability. The promotion of Transit-Oriented Development (TOD), for example, seeks to integrate housing, services, and public transport in ways that reduce dependence on private cars and improve accessibility for vulnerable groups, including older adults (Ministry of Economy, 2018). However, despite these policy efforts, empirical research assessing how older adults individuals in the Klang Valley actually travel—and what factors influence or constrain their mobility—remains limited.

Against this backdrop, this study examines the travel behaviour and mobility constraints of older adults in the Klang Valley. Specifically, it has two main objectives. The first is to analyse travel behaviour through descriptive analysis, focusing on weekly trip frequency, timing, purposes, and transport mode choices. The second is to identify the personal attributes, household attributes, and health condition that influence, and in many cases constrain, weekly trips frequency using ordered logit modelling. By addressing both behavioural patterns and underlying barriers, this study provides a more comprehensive understanding of older adults mobility. Insights from this research are expected to support the development of more effective and sustainable transport strategies, including Transit-Oriented Development (TOD) initiatives, that can address the specific needs and constraints of Malaysia's ageing population.

LITERATURE REVIEW

Various factors significantly influence travel frequency among older adults, shaping their mobility patterns and overall quality of life. Due to age-related changes, older adults are generally categorized as less frequent travelers compared to younger generations, both in terms of the number of trips and the distances covered (Bernal et al., 2019; Borowska-Stefańska et al., 2020; Han et al., 2021). Travel frequency is closely linked to individual characteristics, health conditions, household circumstances, and the broader social and built environments (Cheng et al., 2019).

Age remains one of the most important determinants of travel behavior. Studies have consistently found a negative correlation between age and travel frequency, with older age groups making fewer trips (Ahmad et al., 2019; Borowska-Stefańska et al., 2020). Alsnih and Henscher (2003) emphasised the need to distinguish travel patterns across age cohorts, as age-related limitations often constrain mobility opportunities. Beyond age, health conditions are also central in shaping travel capacity. For example, Böcker et al. (2017) observed that while obesity did not significantly influence travel behavior, disabilities reduced travel frequency. Similarly, Lui and Tight (2021) noted that chronic illnesses and physical limitations frequently restrict travel decisions among older adults.

Socioeconomic and household factors further interact with travel frequency. Higher levels of education, being married, higher household income, larger household

size, and greater access to vehicles or transport services are all associated with increased mobility among older adults populations (Berg et al., 2011; Luiu & Tight, 2021). Ethnic background may also influence travel patterns, reflecting cultural and social variations in mobility needs. Gender differences, however, present mixed findings. While Berg et al. (2011) reported that women tend to travel more frequently than men, Luiu and Tight (2021) and Cheng et al. (2019) found evidence to the contrary, with older men making more trips than older women. These inconsistencies suggest that gender effects may be context-dependent and mediated by cultural norms, household roles, and access to resources.

In terms of mode choice, older adults are generally more reliant on private vehicles, particularly cars, as their main form of transportation (Cheng et al., 2019; Cui et al., 2017; Li et al., 2012; Oxley, 2015). While this reliance provides flexibility, it also has implications for environmental sustainability and long-term well-being. Car usage typically declines with age as health limitations reduce driving ability (Li et al., 2012). Moreover, deteriorating health may limit the feasibility of alternative modes, such as active travel or public transportation (Gitelman et al., 2016). This creates a potential “mobility gap,” where older adults struggle to replace lost driving opportunities with accessible alternatives.

Mobility is not only a matter of practical necessity but also a cornerstone of active aging. Travel facilitates independence, supports social participation, and contributes

to physical and mental health (Rahman et al., 2020). However, barriers such as limited transport options can restrict participation in desired activities, increasing risks of loneliness, isolation, depression, and deteriorating well-being (Groth, 2019). The modes most commonly used by older adults—private, public, and active transportation—thus play a critical role in determining not only their mobility but also their capacity to maintain social connectedness and quality of life in later years.

METHODS

Research Design

This study adopted a quantitative, non-experimental, cross-sectional research design. The choice of a quantitative approach was appropriate as it enables the collection of large-scale data within a relatively short period and allows for the application of robust statistical analyses to objectively examine relationships between variables (Li et al., 2019). The cross-sectional design was particularly suitable as it involved collecting data from older adults at a single point in time, which facilitated the identification and analysis of patterns and determinants of travel frequency without the need for long-term monitoring (Ziauddin et al., 2023).

The target population consisted of older adults aged 60 years and above residing in the Klang Valley, representing an estimated 827,800 individuals in 2021, representing approximately 7.5% of the total Klang Valley population (Department of Statistics Malaysia, 2021). This metropolitan region, encompassing Kuala Lumpur and Selangor,

is characterized by rapid urbanization, diverse demographic profiles, and a wide range of transport infrastructures (Ministry of Transport Malaysia, 2019; Wahab et al., 2016), making it an ideal setting for investigating older adults mobility.

The sampling technique employed was convenience sampling, a type of non-probability sampling. This approach allowed the researcher to select respondents who were readily accessible and willing to participate in the study, though it did not provide every individual in the population with an equal chance of selection (Ajithakumari, 2024). In other words, not all older adults had the same probability of being included, as selection was largely determined by accessibility and willingness to respond to the survey.

$$n = \frac{N}{1 + Ne^2}$$
$$= \frac{827,800}{1 + 827,800(0.05)^2} \approx 400 \text{ respondents}$$

The minimum sample size required was calculated using Yamane’s (Lamola & Yamane, 1967) formula, with a 95% confidence level and a 5% margin of error, which resulted in a requirement of at least

400 respondents. To enhance reliability and robustness of the findings, the study successfully surveyed 497 older adults, exceeding the minimum sample size.

Data were collected through face-to-face surveys conducted during community programs organised by Urbanice Malaysia in collaboration with local municipal councils. These programmes were held in residential areas and community halls, offering a safe and engaging environment for older adults participation. Financial incentives were provided, alongside assurances of confidentiality and the social value of the research. Trained enumerators assisted respondents in completing the structured questionnaires, ensuring clarity of questions and accuracy of responses.

To account for heterogeneity within the older adults population, respondents were categorized into three commonly used age cohorts in transport and ageing studies which Young-Old (Y-O: 60–64 years old), Middle-Old (M-O: 65–75 years old), and Old-Old (O-O: 75 years old above) (Lim et al., 2023). These mutually exclusive categories minimised overlap and offered clearer insights into differences across age cohorts (Table 1).

Table 1
Older adults sampling details

Age Group	Percent	N	Sex	Percent	N
Young-Old (Y-O)	59.56%	296	Female	52%	154
			Male	48%	142
Middle-Old (M-O)	34.01%	169	Female	67.4%	114
			Male	32.6%	55
Old-Old (O-O)	6.44%	32	Female	50%	16
			Male	50%	16

Data Collection

Data for this study were collected using a 7-day weekly travel diary, which was specifically designed to comprehensively capture the mobility patterns of older adults. The diary was structured to gather two main types of information. First, it recorded background information covering personal attributes such as age, gender, ethnicity, and education level; household attributes including household size, income, vehicle ownership, and the possession of a discount card for public transport; as well as health conditions, such as the presence of chronic illness, frequency of doctor appointments, difficulties in walking, and the use of mobility aids.

Second, it documented trip-related information. For the purpose of this study, a trip was defined as any movement away from home to a destination beyond the immediate dwelling boundary (Tam, 2005). Walking trips were included only if they exceeded approximately 100 metres (e.g., to nearby shops, prayer facilities, or healthcare centres), thereby excluding very short indoor or within-compound movements. For each trip, details were collected on the purpose of travel—such as work, shopping, healthcare visits, religious activities, social gatherings, or visits to relatives and friends—as well as the mode of transportation used, including private vehicles, public transport, or active transport. In addition, the diary recorded the timing of trips, which was categorised into weekdays versus weekends and further subdivided into morning, noon, and evening/night.

Although dimensions such as travel distance, travel duration, and travel cost are widely acknowledged as key aspects of travel behaviour, these variables were intentionally excluded from the present study. This decision was made in light of the study's primary objective, which is to identify frequency-based travel patterns and to examine how personal, household, and health-related factors influence weekly trip frequency. While distance, duration, and cost are undeniably important, the focus on trip frequency was considered more relevant as a baseline for informing mobility policies for older adults in Malaysia.

Another important feature of this study was the deliberate inclusion of non-travelers, defined as those who reported zero trips during the 7-day reference period. Their inclusion was essential to capture the full spectrum of mobility patterns, from those who remain actively mobile to those who are completely immobile. By incorporating non-travelers into the analysis, the study provides a more comprehensive understanding of older adults' travel behaviour and sheds light on potential barriers that may prevent them from engaging in out-of-home activities.

Ethical Consideration

The survey was administered directly by the research team, assisted by trained enumerators. All respondents were fully briefed on the objectives of the study, assured of confidentiality, and provided informed consent prior to participation. Ethical approval for this study was obtained from Universiti Putra Malaysia (UPM) under a

collaborative research grant with Universiti Sains Malaysia (USM) and Universiti Kebangsaan Malaysia (UKM), funded by the Ministry of Higher Education (KPT). In line with research ethics and the protection of participants' rights, modest incentives were provided as an acknowledgment of respondents' time and contributions.

Data Analysis

Data were coded and analysed using STATA version 14.2. Descriptive statistics were applied to profile respondents according to personal, household, health, and travel information.

The primary analytical focus was weekly travel frequency, which served as the dependent variable. This variable was categorised into four ordinal levels: 0 = no travel, 1 = 1–5 trips, 2 = 6–10 trips, and 3 = more than 10 trips. This categorisation draws on guidance from the World Health Organization (2007), which emphasises that age-friendly urban planning should ensure access to basic facilities within a 5–10 minute walking distance. It also reflects the actual travel behaviour of older adults in the Klang Valley, thereby offering a practical framework to distinguish between low-, medium-, and high-mobility groups. Such categorisation enhances the interpretability of the results and provides policy-relevant insights.

Given the ordinal nature of the dependent variable, the most appropriate analytical methods were the Ordered Logit and Ordered Probit models (Reynolds, 2023). These models are specifically designed for

ordered categorical outcomes, in contrast to linear regression models such as OLS, which are only suitable for continuous dependent variables.

Although the variance of the raw trip count data exceeded the mean—suggesting potential overdispersion—the use of ordinal categories mitigated this concern. As the study did not model raw count data directly but instead focused on ordered categories of mobility, Negative Binomial regression was not required.

Both models were estimated and compared using the Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC). The model with lower AIC and BIC values was considered superior, as smaller values indicate a better model fit (Cakmakyapan & Goktas, 2013; Sihombing, 2022). The results showed that the Ordered Logit model provided the best fit (AIC = 976.14, BIC = 1085.56), outperforming the Ordered Probit model (AIC = 978.99, BIC = 1088.42).

The Brant test was then conducted to assess the proportional odds assumption underlying the Ordered Logit model. The test produced a p-value of 0.332 (> 0.05), indicating no violation of this assumption (Pfarr et al., 2010; Xu et al., 2022). This confirms that the coefficients of the independent variables are consistent across all outcome categories (i.e., weekly travel frequency levels: 0, 1–5, 6–10, and 11 or more trips).

Figure 1 presents the conceptual model showing the independent variables, divided into three main categories: personal attributes,

household attributes, and health condition, the dependent variable. Table 2 provides a which influence weekly trip frequency as summary of respondent characteristics.

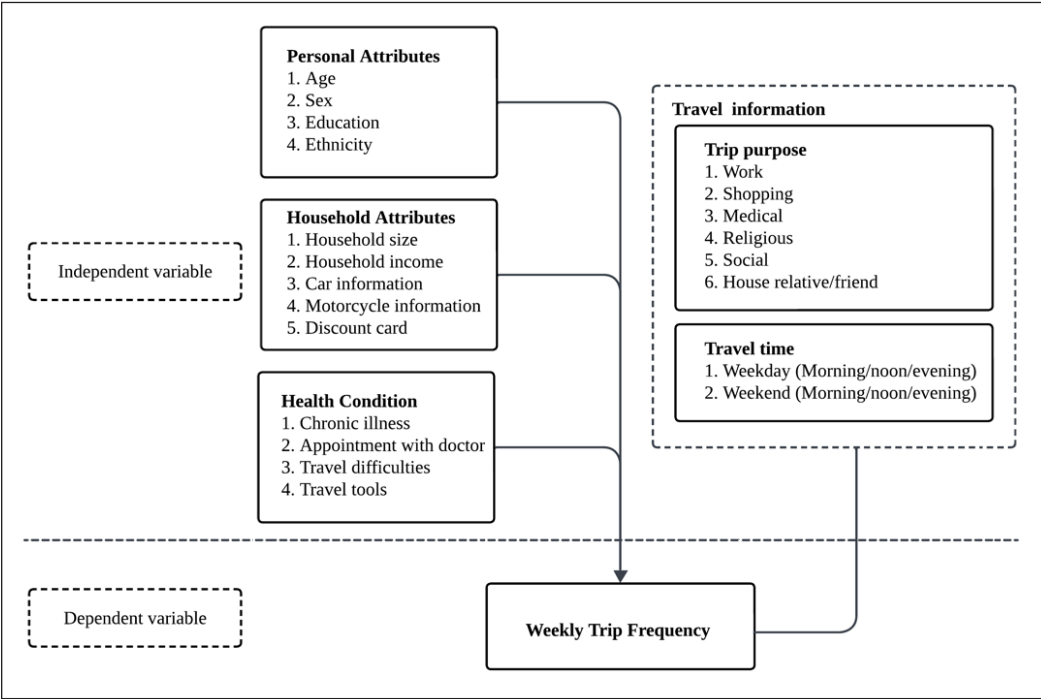


Figure 1. Conceptual model

Source: Authors' own work

Table 2
Summary of data on older adults respondents

Variable description	% per category			
	1	2	3	4
Individual attributes				
Age group (1=60-64 years old, 2=65-75 years old, 3=>75 years old)	59.56	34.01	6.44	
Sex (1=female, 2=male)	57.14	42.86		
Education (1= informal education no education, 2= school education, 3= tertiary education)	5.03	76.26	18.71	
Ethnic (1=malay, 2=chinese, 3=indian)	64.59	27.36	8.05	
Household attributes				
Household size (1= 1-2 person, 2= 3-4 person, 3= > 5 person)	26.36	31.79	41.85	
Household income (1= no income sources, 2= ≤ RM1000, 3= RM1001-RM4000, 4= > RM4000)	15.3	21.13	50.5	13.07
Car information (1= no private car, 2= 1 car, 3= > 2 cars)	47.69	38.63	13.68	
Motocycle information (1= no private motocycle, 2= 1 motocycle, 3= > 2 motocycles)	62.37	25.14	12.49	

Table 2 (continued)

Variable description	% per category			
Discount card (RapidKL) (1= no, 2= yes)	75.05	24.95		
Discount card (KTMB) (1= no, 2= yes)	81.29	18.71		
Discount card (Express bus) (1= no, 2= yes)	90.14	9.86		
Health attributes				
Chronic illness (1= no, 2= yes)	4.43	95.57		
Doctor appointment (1= no, 2= yes)	66.4	33.60		
Walking difficulty (1= no, 2= yes)	67.2	32.8		
Mobility aids (1= no, 2= yes)	95.57	4.43		
Trip attributes				
Trip frequency per week (1= not travelling, 2= 1-5 trips, 3= 6-10 trips, 4= ≥11 trips)	7.24	52.72	36.42	3.62
Weekday morning trips (1= no, 2=yes)	20.72	79.28		
Weekday afternoon trips (1= no, 2= yes)	70.22	29.78		
Weekday evening/night trips (1= no, 2= yes)	65.79	34.21		
Weekend morning trips (1= no, 2= yes)	37.42	62.58		
Weekend afternoon trips (1= no, 2= yes)	68.21	31.79		
Weekend evening/night trips (1= no, 2= yes)	64.99	35.01		
Work trips (1= no, 2= yes)	64.59	35.41		
Groceries and services trips (1= no, 2= yes)	6.44	93.56		
Medical trips (1= no, 2= yes)	15.29	84.71		
Religious trips (1= no, 2= yes)	20.52	79.48		
Social trips (1= no, 2= yes)	26.16	73.48		
House of relatives/friends trips (1= no, 2= yes)	24.55	75.45		
Walking trips (1= no, 2= yes)	47.69	52.31		
Car trips (1= no, 2= yes)	40.44	59.56		
Motorcycle trips (1= no, 2= yes)	74.04	25.96		
Bicycle trips (1= no, 2= yes)	95.37	4.63		
Bus trips (1= no, 2= yes)	74.25	25.75		
Train trips (1= no, 2= yes)	82.09	17.91		
Taxi trips (1= no, 2= yes)	89.94	10.06		
ODM trips (1= no, 2= yes)	90.74	9.26		

Source: Authors’ own work

RESULTS

Descriptive Analysis of Travel Behaviour

Trip Taken per Week

In general, Figure 2 shows the frequency categories of trip among the older adults.

The majority of respondents (52.72%) reported traveling 1 to 5 trips per week, followed by 36.42% who traveled 6 to 10 trips. A small proportion (7.24%) reported not travelling, while 3.62% reported more than 11 trips per week.

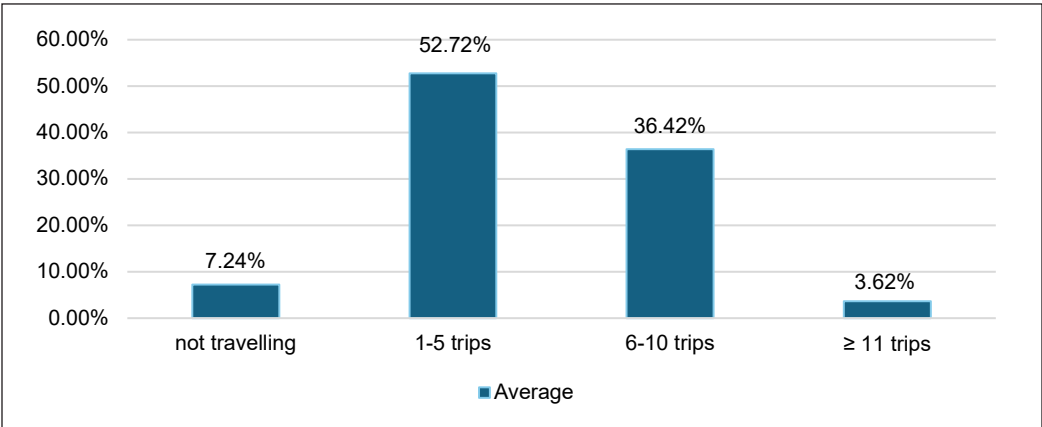


Figure 2. Proportion of participants reporting weekly trip frequency (not travelling, 1-5 trips, 6-10 trips, ≥11 trips)
Source: Authors’ own work

Trip Taken per Week across Age Groups

Figure 3 illustrates the weekly travel frequency among older adults individuals across different age groups. The Y-O (60–64 years, n=296) group shows the highest mobility, where 47.6% (141) make 1–5 trips weekly and 40.5% (120) make 6–10 trips.

Only 6.1% (18) reported not travelling, while 5.7% (17) make >11 trips. For the M-O (65–74 years, n=169) group, mobility declines, with 60.4% (102) making 1–5 trips and 30.8% (52) making 6–10 trips. A smaller share, 8.3% (14), reported not travelling, and just 0.6% (1) make >11 trips. The O-O (75 years above) group shows the lowest mobility, with 19% making 1–5 trips, 9% making 6–10 trips, and 0% making >11 trips. Only 4% reported not travelling.

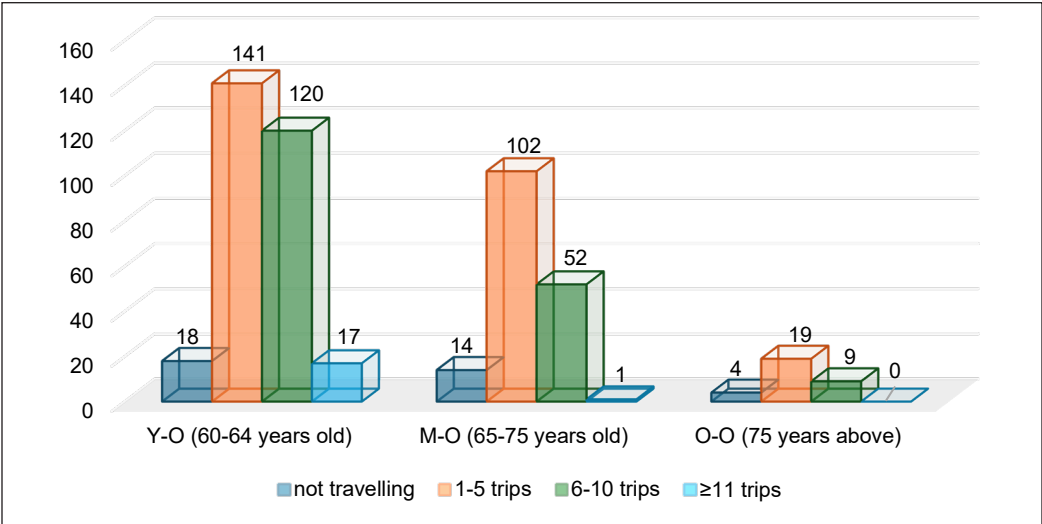


Figure 3. Distribution of weekly travel frequency by age groups (Y-O: 60–64 years, M-O: 65–75 years, O-O: 75 years above)
Source: Authors’ own work

(>75 years old, n=31) group demonstrates the lowest mobility, with 61.3% (19) making 1–5 trips and 29.0% (9) making 6–10 trips, while 9.7% (3) reported not travelling and none make >11 trips. Overall, the results highlight a clear downward trend in travel frequency with advancing age, with the most significant decline observed among the oldest group.

Travel Time

In terms of travel time, table 2 presents data obtained from respondents, where each category (morning, midday, evening/night) carries its own proportion of 100%. Since these categories are independent, the overall percentage inevitably exceeds 100%. This question was designed to identify travel time preferences among older adults individuals.

On weekdays (Figure 4), the majority (79.28%) prefer morning travel, with the M-O group recording the highest share at 80.47%. Evening and night trips (34.21%) are more popular than midday travel, with the O-O group showing the strongest preference for evening/night travel at 46.88%.

On weekends (Figure 5), a similar trend is observed. Most older adults individuals (62.58%) prefer morning travel, led again by the M-O group (67.46%). Evening and night trips (35%) remain more favorable than midday travel, with the O-O group recording the highest share at 37.5%. Overall, these findings suggest that older adults individuals consistently prefer morning travel, followed by evening/night, while midday remains the least favored across both weekdays and weekends.

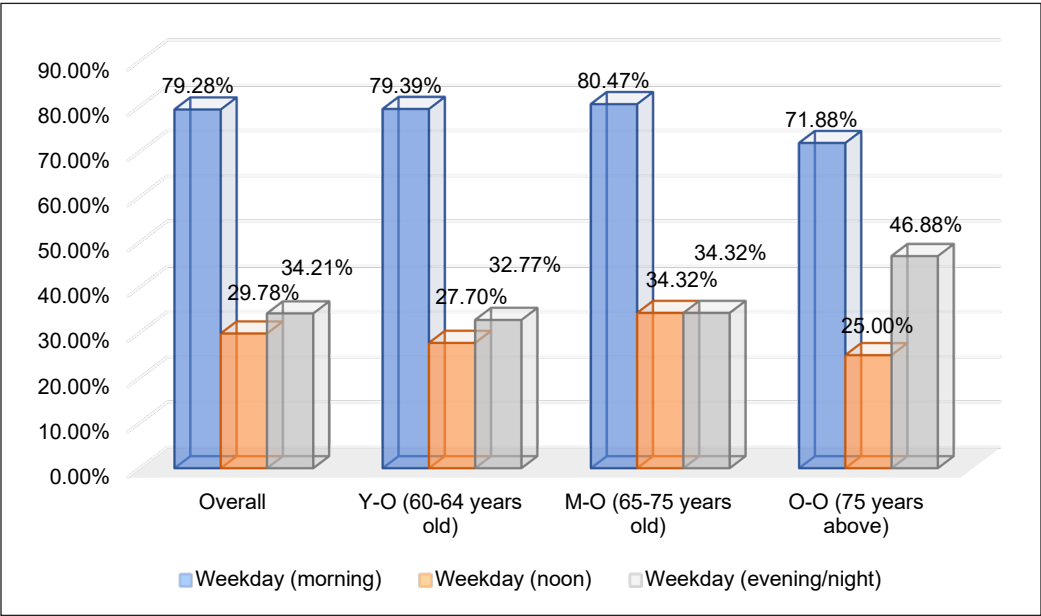


Figure 4. Older adults travel timing preferences on weekday patterns
Source: Authors’ own work

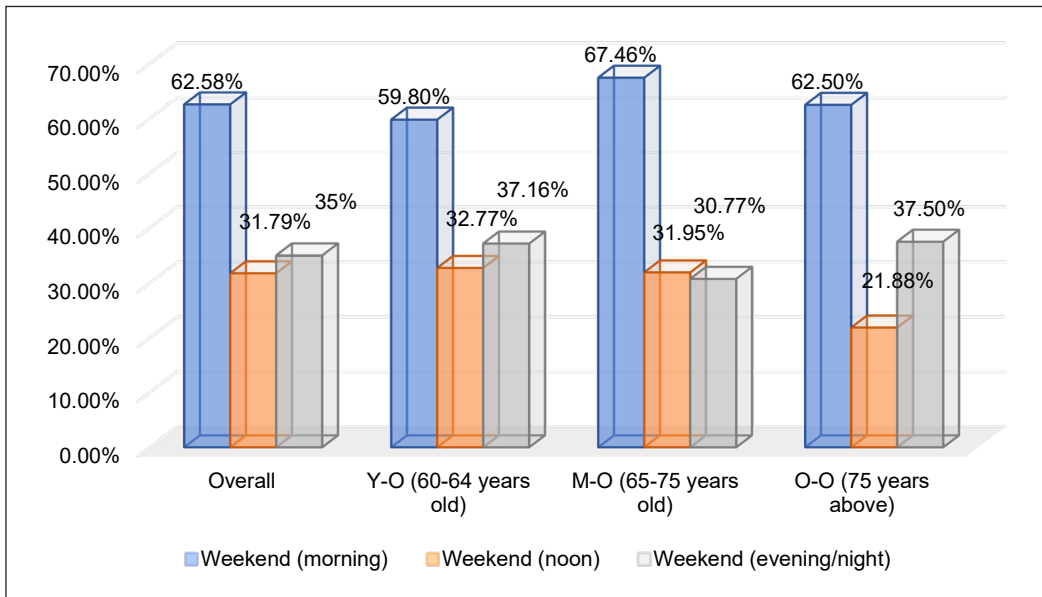


Figure 5. Older adults travel timing preferences on weekend patterns

Source: Authors' own work

Trip Purpose

In terms of trip purposes, Table 3 presents older adults travel purposes, where each category (work, shopping, medical, religious, social, and visiting relatives/friends) represents an independent choice. Since each category carries its own proportion of 100%, the total inevitably exceeds 100%. This question was designed to identify the priority purposes of travel among older adults individuals.

Figure 6 shows that shopping is the primary travel purpose, reported by 93.56% overall, followed by medical trips (84.71%), religious trips (79.48%), house of relatives/friends trips (75.45%), and social trips (73.84%). Work trips recorded the lowest share at 35.41%.

When disaggregated by age groups, the Y-O (60–64 years) display the highest

engagement across nearly all purposes, with 94.59% shopping, 85.81% medical trips, 84.12% religious trips, 78.38% social trips, and 83.45% visiting relatives/friends. Work trips is also most common in this group (46.96%).

Among the M-O (65–75 years), participation declines in most categories which 92.31% shopping, 83.43% medical trips, 74.56% religious trips, 67.46% social trips, and 63.91% visiting relatives/friends, with a sharp reduction in work trips (18.93%).

For the O-O (75 years above), travel purposes narrow further. While 90.63% still shop and 81.25% make medical trips, only 62.5% participate in religious trips or visit relatives/friends, and 65.63% engage in social trips. Work trips is minimal (15.6%).

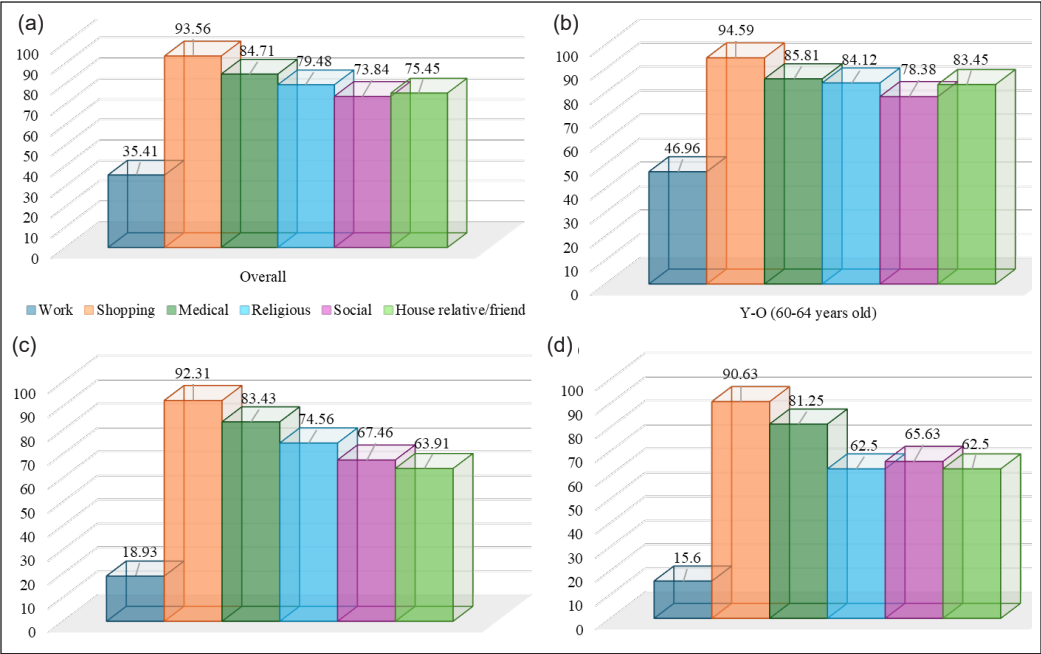


Figure 6. Older adults travel purposes in the Klang Valley; a) Overall, b) Y-O (60-64 years old), c) M-O (65-75 years old), d) O-O (75 years above)
Source: Authors' own work

Mode of Transportation

Figure 7 illustrate the modes of transportation used by older adults individuals in the Klang Valley which (a) Overall, (b) Y-O (60–64 years old), (c) M-O (65–75 years old), and (d) O-O (75 years above). Each mode of transport (walking, car, motorcycle, bicycle, bus, train, taxi, and ODM) represents an independent category of choice. Since each category carries its own proportion of 100%, the total inevitably exceeds 100%. This question was designed to capture the preferred modes of transport among older adults individuals for their weekly trips.

As shown in Figure 7(a), private cars are the most frequently used mode of transport (59.56%), followed closely by

walking (52.31%). Motorcycles (25.96%) and buses (25.75%) are moderately utilized, while trains (17.91%) and taxis (10.06%) play smaller roles. The least used modes are ODM (9.26%) and bicycles (4.63%), reflecting limited adoption of emerging mobility services and active transport beyond walking.

When disaggregated by age groups, variations become evident. Among the Y-O (60–64 years), reliance on private transport is the highest, with 67.32% using cars and 30.74% using motorcycles. Walking is also common (48.65%), while public transport usage is comparatively lower (bus 21.62%, train 14.53%).

In contrast, the M-O (65–75 years) show a shift toward more accessible modes.

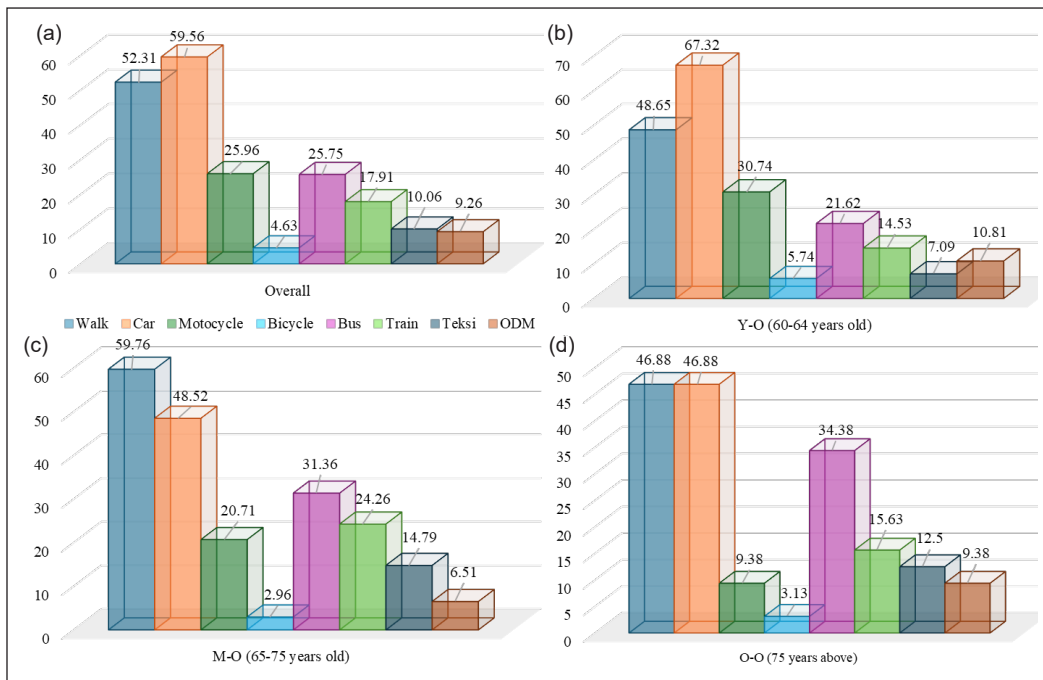


Figure 7. Older adults mode of transportation in the Klang Valley; a) Overall, b) Y-O (60-64 years old), c) M-O (65-75 years old), d) O-O (75 years above)

Source: Authors' own work

Walking emerges as the dominant choice (59.76%), while private car use decreases to 48.52%. Public transportat usage rises, with 31.36% using buses and 24.26% using trains. Taxi use also increases (14.79%) compared to the Y-O group, reflecting reduced reliance on driving.

For the O-O (75 years above), transportation preferences narrow further. Private car use declines to 46.88%, while walking remains equally common (46.88%). Bus usage increases substantially (34.38%), while motorcycle use drops sharply to 9.38%, reflecting reduced ability or willingness to ride. Taxis (12.5%) and ODM (9.38%) remain supplementary, while bicycles are rarely used (3.13%).

DISCUSSION

Factors Influencing Trip Frequency

Table 3 shown the ordered logit estimation results for the factors influencing weekly trip frequency among older adults in the Klang Valley. The results indicate that the model fits reasonably well, as confirmed by two key components of the model fitness test. The Nagelkerke Pseudo R-Square value is 0.0847, which, although relatively modest, suggests that the explanatory variables contribute meaningfully to variations in travel frequency. More importantly, the Log-Likelihood Ratio test is statistically significant (Chi-Square = 85.47, df = 23, $p < 0.001$), confirming that the model provides

Table 3
Results for the Ordered Logit models on the number of trips per person per week

Variable	Coefficient	Odd Ratio	Marginal Effect			
			(0) not travelling	(1) 1–5 trip	(2) 6–10 trip	(3) > 11 trip
Personal attributes						
Sex (ref= female)	0.435**	1.545	-0.028**	-0.062**	0.075**	0.015*
Age (ref= 60-64 years old)						
65-75 years old	-0.661*	0.516	0.042***	0.094***	-0.114***	-0.022***
> 75 years old	-1.011**	0.364	0.065**	0.144**	-0.175**	-0.034**
Education (ref= informal education no education)						
School education	-1.027**	0.358	0.066**	0.146**	-0.178**	-0.034**
Tertiary education	-1.162**	0.313	0.074**	0.166**	-0.201**	-0.039**
Ethnic (ref= malay)						
Chinese	1.002*	2.722	-0.064***	-0.143***	0.173***	0.034***
Indian	-0.326	0.722	0.021	0.046	-0.056	-0.011
Household attributes						
Household size (ref= 1-2 people)						
3-4 people	-0.312	0.732	0.020	0.045	-0.054	-0.010
> 5 people	-0.049	0.952	0.003	0.007	-0.008	-0.002
Household income (ref= no income sources)						
< RM1000	0.500	1.649	-0.032	-0.071	0.087	0.017
RM1000-RM4000	1.084*	2.957	-0.069***	-0.155***	0.188***	0.036***
> RM4000	0.752**	2.121	-0.048*	-0.107**	0.130**	0.025**
Car information (ref= no private car)						
1 car	0.281	1.324	-0.018	-0.040	0.049	0.009
> 2 cars	0.149	1.161	-0.010	-0.021	0.026	0.005
Motocycle information (ref= no private motorcycle)						
1 motorcycle	-0.359	0.699	0.023	0.051	-0.062	-0.012
> 2 motorcycles	-0.841*	0.431	0.054**	0.120***	-0.146***	-0.028**
Discount card (RapidKL)	0.306	1.358	-0.020	-0.044	0.053	0.010
Discount card (KTMB)	-0.275	0.759	0.018	0.039	-0.048	-0.009
Discount card (Expres bus)	0.318	1.374	-0.020	-0.045	0.055	0.011
Health attributes						
Chronic illness (ref= no)	-0.962**	0.382	0.062**	0.137**	-0.166**	-0.032**
Doctor appointment (ref= no)	0.567*	1.762	-0.036***	-0.081***	0.098***	0.019**
Walking difficulty (ref= no)	-0.526**	0.591	0.034**	0.075**	-0.091***	-0.018**
Mobility aids (ref= no)	-0.384	0.681	0.025	0.055	-0.066	-0.013

Note. * p < 0.10, ** p < 0.05, and *** p < 0.01

Source: Authors' own work

a good overall fit and significantly improves upon the null model.

The findings highlight that gender, age, ethnicity, education, income, vehicle ownership, and health factors significantly shape mobility among older adults. Gender emerges as an important determinant, with men being more mobile than women (Coef. = 0.435, OR = 1.545). Marginal effects indicate that being male reduces the probability of not travelling by 2.8%, while increasing the likelihood of making 6–10 trips by 7.5% and more than 11 trips by 1.5%. This is consistent with Sim-Gould et al. (2018), who found that men tend to retain greater independence and physical capacity. However, unlike Canada where older adults women's mobility is gradually improving (Hosford et al., 2025), cultural norms, caregiving responsibilities, and safety concerns continue to constrain women's mobility in Malaysia (Visnudharshana & Kishore, 2024).

Age also plays a decisive role. Compared to the Y-O (60–64 years), the M-O (65–75 years) are less likely to travel frequently (Coef. = -0.661, OR = 0.516), while the O-O (75 year above) show the greatest constraints (Coef. = -1.011, OR = 0.364). Marginal effects reveal an increasing probability of not travelling (+4.2% for M-O; +6.5% for O-O) and a declining probability of making 6–10 weekly trips (-11.4% and -17.5%, respectively). These results are consistent with the Travel Life Cycle Theory, which links ageing with declining physical and cognitive capacity and greater social dependency (Rosenbloom,

2001). In contrast, older adults in Japan and Sweden maintain mobility for longer due to well-developed, older adults-friendly transport systems (Geng et al., 2025; Helmer & Murray, 2025), underscoring how limited systemic support in Malaysia accelerates mobility decline (Zakaria et al., 2024).

Interestingly, education shows a negative association with travel frequency. Older adults with school education (Coef. = -1.027, OR = 0.358) and higher education (Coef. = -1.162, OR = 0.313) are less likely to travel compared to those without formal education. Marginal effects suggest a higher probability of not travelling (+7.4%) and reduced likelihood of making 6–10 trips (-20.1%). Rather than reflecting reduced accessibility, this may reflect behavioural adaptation, where educated older adults adopt digital solutions such as online shopping, e-banking, and telehealth, reducing the need for physical travel (Li, 2023; Pangbourne, 2018).

Ethnicity further differentiates travel behaviour. Chinese older adults are significantly more mobile than Malays (Coef. = 1.002, OR = 2.722), with higher probabilities of making 6–10 weekly trips (+17.3%) and more than 11 trips (+3.4%). This echoes Wang et al. (2021) and Zhang et al. (2018), who linked higher mobility among Chinese older adults to stronger community ties and ongoing work engagement. Indian older adults, however, do not differ significantly from Malays. Unlike developed countries such as Finland, where ethnic mobility patterns are more balanced (Baum et al., 2025), Malaysia's

cultural and social context continues to shape these disparities.

Household economic resources are another critical factor. Older adults from households earning RM1,000–4,000 monthly are nearly three times more likely to travel (Coef. = 1.084, OR = 2.957), while those earning above RM4,000 also remain significantly more mobile (Coef. = 0.752, OR = 2.121). Marginal effects confirm higher probabilities of making 6–10 weekly trips (+18.8% and +13.0%, respectively). This finding supports Rational Choice Theory, whereby greater financial capacity expands mobility options and access to opportunities (Sun & Chen, 2022). Unlike Indonesia and the Philippines, where structural barriers limit the effect of income (Fabillar et al., 2025; Irawan et al., 2024), older adults in Malaysia's Klang Valley benefit more directly from financial resources that enhance mobility.

Vehicle ownership, however, shows mixed effects. While car ownership often facilitates mobility, owning two or more motorcycles significantly reduces travel frequency (Coef. = -0.841, OR = 0.431). In multigenerational households, motorcycles are usually used by younger family members, leaving older adults dependent on others. Marginal effects reveal a higher probability of not travelling or making only 1–5 trips per week. This supports Brim et al. (2021), who argued that ownership does not equate to access within households. Moreover, cultural norms in Malaysia discourage older adults from riding motorcycles due to safety concerns, unlike in Japan or Taiwan

where older adults continue using scooters supported by safety systems and training (Buhnik, 2024; Hwang et al., 2025).

Finally, health remains a fundamental constraint on mobility. Chronic illness (Coef. = -0.962, OR = 0.382) and walking difficulties (Coef. = -0.526, OR = 0.591) substantially reduce travel, consistent with the Andersen Behavioural Model, which frames health as a critical need factor shaping access (Babitsch et al., 2012). Hosford et al. (2025) also found that poor health particularly limits non-essential trips. In contrast, older adults in Sweden and Canada remain active despite health challenges due to supportive transport services and age-friendly environments (Alousi-Jones et al., 2025; Helmer & Murray, 2025). Conversely, regular doctor appointments increase mobility (Coef. = 0.567, OR = 1.762), with higher probabilities of making 6–10 (+9.8%) and >11 trips (+1.9%). This confirms that medical needs are a primary driver of mobility, reinforcing Rational Choice Theory, as older adults rationally prioritise health-related trips in contexts where telemedicine is still limited (McCarthy, 2022).

CONCLUSION

This study set out to examine older adults mobility in the Klang Valley with two main objectives: first, to identify travel behaviour patterns through descriptive analysis; and second, to determine the personal attributes, household attributes, and health condition influencing weekly trip frequency using ordered logit modelling.

Both objectives were successfully achieved, and the findings provide valuable insights into the opportunities and constraints surrounding mobility in Malaysia's ageing society (Rahman et al., 2020; Luiu & Tight, 2021).

From the descriptive analysis, most older adults in the Klang Valley were found to travel moderately—typically one to five trips weekly—while very few undertook more than 11 trips. A clear age-related decline emerged: the Y-O remain the most mobile, while mobility drops sharply among the O-O. Morning is consistently preferred as the safest and most convenient time to travel, while shopping and medical trips dominate as the primary purposes of mobility. Transport mode choices also shift with age, from heavy reliance on private vehicles among the younger group to greater dependence on walking and buses among the oldest group. These findings demonstrate that ageing not only reduces overall mobility but also reshapes travel purposes and preferred modes, consistent with the Travel Life Cycle Theory (Alsnih & Hensher, 2003; Rosenbloom, 2001).

The ordered logit analysis complements these results by identifying the constraints that drive mobility differences. Male older adults, those of Chinese ethnicity, and those from higher-income households were more likely to travel frequently, while chronic illness, walking difficulties, and lower education levels significantly restricted mobility. Household vehicle ownership showed mixed effects, as access does not always guarantee use, particularly in multi-

generational households (Brim et al., 2021). Importantly, regular doctor appointments were found to increase mobility, confirming that health-related needs remain a central driver of travel (Babitsch et al., 2012; McCarthy, 2022). Overall, older adults mobility is shaped by the intersection of individual, household, and health attributes (Sims-Gould et al., 2018; Sun & Chen, 2022).

Several policy implications arise from these findings. First, mobility among older adults in the Klang Valley remains constrained by health conditions, safety concerns, and unequal access to resources, underscoring the importance of inclusive and age-friendly transport systems (Gitelman et al., 2016; Groth, 2019). Second, the results reinforce the relevance of Transit-Oriented Development (TOD) initiatives, which integrate housing, services, and public transport within walkable catchment areas (Ministry of Economy, 2018). By enhancing pedestrian infrastructure, ensuring affordable and accessible public transport, and reducing dependence on private cars, TOD can help overcome many of the barriers identified in this study (Zakaria et al., 2024). Third, policies that specifically target older adults women, low-income households, and those with health limitations are crucial to prevent mobility-related social exclusion (Hosford et al., 2025; Visnudharshana & Kishore, 2024).

In terms of contributions, this study provides one of the few empirical analyses of older adults travel in Malaysia, offering both descriptive insights and econometric

modelling of mobility determinants. By drawing on Rational Choice Theory, the Travel Life Cycle perspective, and the Andersen Behavioural Model, the study enriches understanding of how personal, household, and health attributes jointly shape mobility (Rosenbloom, 2001; Babitsch et al., 2012; Sun & Chen, 2022).

Future research could expand this analysis in several directions. Comparative studies between older adults and non-older adults populations, as well as between urban and rural settings, would deepen understanding of contextual differences in mobility needs (Cheng et al., 2019; Luiu & Tight, 2021). Longitudinal approaches could further track how mobility evolves across ageing stages, while incorporating dimensions such as travel cost and distance would provide a fuller picture of travel behaviour and transport mode choices (Berg et al., 2011; Li et al., 2012).

In conclusion, while older adults in the Klang Valley remain moderately mobile, their travel behaviour is heavily shaped by age, gender, income, health, and cultural factors. Strengthening TOD strategies and developing targeted, inclusive transport policies are essential to ensure that Malaysia's rapidly ageing population can maintain mobility, independence, and active participation in the years ahead (Rahman et al., 2020; Zakaria et al., 2024).

LIMITATIONS AND FUTURE RESEARCH

This study is limited to older adults residing in the Klang Valley, with respondents

identified through the Urbanice Malaysia program and local municipalities, based on clusters in residential areas and locations frequently visited by the older adults. Consequently, the findings cannot be generalized to rural areas or other states, where mobility constraints may differ due to variations in accessibility, infrastructure, and socio-economic conditions. Future research should therefore expand its scope to rural contexts, enabling comparative analyses between urban and rural settings. Such comparisons would help to uncover regional disparities in mobility and inform place-based interventions. In addition, comparative studies with non-older adults populations would provide deeper insights into generational differences in travel behaviour, thereby supporting the formulation of transport policies that are more inclusive and equitable across age groups.

IMPLICATIONS OF THE STUDY

The analysis of travel behaviour and mobility constraints among older adults in the Klang Valley provides several critical implications for policy, planning, and social well-being. First, the findings offer evidence-based direction for transport policies tailored to the older adults population. Measures such as subsidized fares, discounted transit passes, and the expansion of accessible public transport can help sustain independence and encourage social participation. Second, the study highlights the importance of embedding age-friendly infrastructure in urban design. Safe pedestrian pathways,

barrier-free access to buses and trains, and comfortable, well-shaded waiting areas are essential to ensure that mobility remains convenient, safe, and inclusive for older adults. Third, the strong link between health and mobility underscores the need to integrate transport planning with healthcare access. Affordable and reliable transport enables older adults to attend medical appointments, access preventive care, and maintain social connections, thereby supporting active and healthy ageing. Finally, the results reinforce the relevance of Transit-Oriented Development (TOD) in addressing older adults mobility constraints. By integrating housing, services, and public transport within walkable catchment areas, TOD initiatives can reduce dependence on private cars while improving accessibility for vulnerable groups. Strengthening TOD, alongside policies targeting older adults women, low-income households, and those with health limitations, would be a vital step toward creating a more inclusive and age-friendly transport system as Malaysia transitions into an aged society.

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Symbolic Violence in Indonesian Families during Presidential Elections: Forms, Influencing Factors, and Impacts

Mughniatul Ilma^{1*}, Safiruddin Al Baqi¹, and Husna Ni'matul Ulya²

¹*Faculty of Education and Teaching Science, State Islamic Institute of Ponorogo, Jalan Pramuka, No.156, Ronowijayan, Kec. Siman, Kabupaten Ponorogo, Jawa Timur 63471, Indonesia*

²*Faculty of Islamic Economics and Business, State Islamic Institute of Ponorogo, Jalan Pramuka, No.156, Ronowijayan, Kec. Siman, Kabupaten Ponorogo, Jawa Timur 63471, Indonesia*

ABSTRACT

This study aims to analyse the forms, factors, and impacts of symbolic violence in families during presidential elections. This study used a phenomenological involving five adults aged 19 to 40 years as subjects of the research. Subjects were selected based on inclusive criteria, including having voting rights and having experienced symbolic violence during the presidential election. Data were collected through in-depth interviews, observations, and documentation and analysed using Interpretative Phenomenological Analysis (IPA). The study found that symbolic violence in families during elections manifests in various subtle but effective forms of parental domination, such as moral bullying, sharp criticism, and the use of religious and family status narratives to impose political views. Parents often use religious values to legitimise their pressure on children, compelling them to conform. Homogeneous social environments, political organisations, and conservative backgrounds reinforce this authoritarian attitude. The impact on children includes internal pressure to hide differing political views and a fear of family conflict, leading to a sense of constraint and lack of freedom. This pressure also weakens trust in parental authority and creates emotional distance, resulting in unhealthy family relationships. These findings have implications for policymakers, educators, and social organizations by informing the design of interventions that support individual political freedom and promote healthier family relationships grounded in mutual respect and open communication.

Keywords: Democratic, election, , family, political, symbolic violence

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E-mail addresses:

mughniatul@uinponorogo.ac.id (Mughniatul Ilma)

albaqi@uinponorogo.ac.id (Safiruddin Al Baqi)

husna@uinponorogo.ac.id (Husna Ni'matul Ulya)

* Corresponding author

INTRODUCTION

During presidential elections in Indonesia, differences in political views often seep into intimate family dynamics. Children may face criticism from parents who invoke moral or religious authority to undermine child's political choices, resulting in emotional

distance, tension, or silent resistance within the household (Gunawan & Bahari, 2024). These experiences demonstrate that democratic contestation can manifest as a subtle form of pressure in the private sphere. Elections in democratic systems, including in Indonesia (Zaman et al., 2023), are designed to guarantee free, fair, and participatory political rights (Sar baini, 2020). However, this democratic ideal often clashes with deep-rooted family values and hierarchical norms in the household, which ultimately gives rise to symbolic violence (Bourdieu, 2017).

In the Indonesian context, political rights are guaranteed in Article 43 Paragraphs (1) and (2) of Law Number 39 of 1999 concerning Human Rights, which guarantees that every citizen has the right to vote and be elected through direct, public, free, secret, honest, and fair elections (Suwanto & one Melany, 2023). Similarly, the 1945 Constitution of the Republic of Indonesia (Konstitusi, 2014) highlighting the central role of the people in democratic governance. The study specifically focusses on Indonesia's presidential election, a period often marked by rising political tensions and polarisation. Although presidential elections are formally public and political events, their effects often extend into the personal realm, especially within the family, where political differences can trigger tension. The motivation for this research arises from the observation that political contestation at the national level can manifest symbolic violence in family relationships.

Citizens have the right to vote freely or discretionally, but sometimes they encounter obstacles related to technical matters and intangibles. Technical obstacles include various violations and fraud, including abuse of voting rights (Rasji et al., 2023), law enforcement against less-than-optimal election crimes (Septiono et al., 2023), issues related to honesty and fairness in elections, ranging from money politics to unprofessional election organisers (Imawan & Ratna, 2020). Intangible obstacles, on the other hand, involve symbolic pressures, particularly within families where dominant members, such as parents, exert coercive influence over younger or subordinate family members in political decision-making.

This type of pressure can be understood through Pierre Bourdieu's concept of symbolic violence, a form of non-physical domination embedded in everyday interactions and internalised power structures (Burawoy, 2019). Unlike overt violence, symbolic violence operates subtly—through moral arguments, emotional pressure, and hierarchical expectations—making it harder to detect or resist. In familial settings, it often manifests as demands for loyalty, shame, or religious justification, especially when parents expect children to conform to political choices. Symbolic violence is accepted as 'normal' by both parties and thus perpetuated without open conflict.

In the context of Indonesian elections, symbolic pressure within families can be exacerbated by broader campaign strategies. Political parties often mobilise religious or community figures to influence

voters (Barokah, 2023; Fiorentina et al., 2023). These figures, perceived as moral authorities, indirectly reinforce familial dominance over political choices. As a result, parents may use similar religious or communal arguments to legitimise pressure on their children, blurring the line between persuasion and coercion. This contradicts the democratic ideal of free political choice (Suwanto & Melany, 2023).

Some studies discussing violence in elections are influenced by factors such as political agencies (Momen et al., 2020), ethnic territory, weak institutions, and a culture of violence (Jenkins, 2020). Visual representations of violence during elections play an important role in shaping public perception and can have an impact on the representation of democracy (Jones, 2021). The violent metaphors used by political candidates can also influence voting behaviour, depending on the resonance with audience characteristics and political orientation (Kalmoe, 2013). Electoral violence is a global problem, with studies exploring its causes and consequences around the world (Saha, 2022). However, most of these studies focus on public and visible forms of violence, such as physical clashes, institutional weaknesses, or media influence. This study, by contrast, focuses on how electoral contestation penetrates the private sphere, particularly the family through symbolic violence. While previous research has analysed violence at structural and societal levels, this study contributes by revealing how subtle and invisible power operates interpersonally within families during the presidential election.

Based on the description above, this study aims to explore and analyse in depth the authoritarian attitudes of parents that form symbolic violence against children in the context of the election of presidential candidates in the Indonesian elections. This study also aims to identify the underlying factors of dominance and its impact on children. The findings in this study are expected to contribute to public understanding and provide insight for policymakers in encouraging democratic values in the family environment. This research is based on the argument that parental authoritarianism as a form of symbolic violence has diverse backgrounds, depending on the role and position of parents in the family structure. Further explanations will be presented in the following sections.

LITERATURE REVIEW

Theory of Symbolic Violence

Symbolic violence is a central concept in Pierre Bourdieu's thought to explain how social dominance is maintained through invisible but highly effective mechanisms. Symbolic violence operates subtly through social representations, language, knowledge, and meaning that are legitimised by the dominant institutions in society (Bourdieu, 2017). It works through internalising values and norms by the dominated party, where dominance is accepted voluntarily as a natural thing, without realising it as a form of oppression (Lindell, 2022).

In family structures, symbolic violence is present when parents use their normative authority to shape children's views of

the world, including in terms of politics, religion, and morality (Ulya, 2017). This dominance does not always come in the form of explicit prohibitions, but rather through symbolic language full of meaning, such as moral advice, religious postulates, or family expectations conveyed compassionately. The child then internalises these values as an unquestionable truth. Narratives such as “choosing a leader is a religious responsibility” or “this family always chooses a certain party” become instruments of symbolic power that narrow the space for critical thinking and individual autonomy in the family (Fatmawati, 2020).

Bourdieu also emphasised that symbolic power is only effective if there is a supportive *habitus*, that is, mental structures and dispositions formed through social experience from an early age (Stahl & Mu, 2024). In an ideologically homogeneous family, this *habitus* forms communication and power relations patterns that leave no room for open resistance. Children with different views tend to be silent, hide differences, or give in for family harmony (Ulya, 2017). Because it works through symbolic legitimacy, this domination is rarely realized as violence by perpetrators and victims, and instead becomes the most established social reproductive mechanism in preserving power relations inequality (Burawoy, 2019).

Social Learning Theory

The social learning theory developed by Albert Bandura explains that human behaviour is not only formed through direct

experience, but also through observation, imitation, and reinforcement of the actions of other individuals who are considered models (Bandura & Walters, 1977). The model usually has an emotional closeness or symbolic authority, such as a parent in a family context. In the domestic environment, children observe their parents' mindsets, attitudes, and responses to social issues, including political choices, and use them as a reference in shaping their preferences. This process transmits family values and political orientations between generations, even without explicit verbal communication (Bandura, 2011).

In practice, the family's social learning process is often unrealised as a form of ideological formation. When children accept political values from their parents without questioning or critically evaluating, there is a passive but deeply rooted internalisation process. In the context of symbolic violence, this theory explains how the dominance of political values in the family does not always appear through verbal coercion or open emotional pressure, but rather through the repetition of parental attitudes and views considered the absolute truth. This makes social learning theory relevant to understanding how the legitimacy of symbolic power in the family is strengthened by social processes that seem natural but keep a hidden domination structure (Wahyuni & Fitriani, 2022).

Theory of Authority

Max Weber classifies authority into three ideal types: traditional authority, charismatic

authority, and rational-legal authority (Weber, 2009). Traditional authority is derived from hereditary customs and values, accepted as legitimate because it has long existed in specific social structures. Charismatic authority relies on a leader's charm or exceptional qualities, while rational-legal authority relies on formally recognized laws and rational systems (Conger, 1993). In interpersonal and family relationships, traditional authority is often the basis of power relations between parents and children, especially in societies that still uphold patriarchal values and seniority. In this context, the role of parents is often considered absolute and unquestionable, including instilling political, moral, or religious values (Riches, 2010).

However, as a child's age and reflective capacity increase, such traditional forms of authority can undergo shifts or even rejections. Children begin to reassess parents' authority based on rationality and freedom of thought, especially when the values instilled clash with social reality or their personal views. In the context of symbolic violence in the family, this conflict arises when parents use their traditional authority to impose political preferences on children. In contrast, children develop a more rational and critical mindset. This process of resistance can be read as a transition from obedience to customary-based authority to an orientation to authority based on argumentation and logical consideration, which in Weber's terminology, reflects the characteristics of modern and democratic societies (Conger, 1993).

Conflict Management Theory in the Family

Conflict management theory departs from the assumption that differences of opinion, including political views, are normal and even healthy in interpersonal relationships, as long as they are managed constructively. K. Thomas and Kilmann (1978) developed five main styles in dealing with conflict: competing, collaborating, compromising, avoiding, and accommodating. In parent-child relationships, the competitive (dominant) style is often used by parents who feel they have absolute authority. At the same time, children tend to choose avoidance or accommodating styles to avoid tension. When differences in values are not discussed openly but suppressed in the family's hierarchical structure, an imbalance of power emerges (Kilmann & K. Thomas, 1975). This pattern creates ideal conditions for the emergence of symbolic violence since dominance is not directly challenged but accepted as a form of obedience in the family structure.

Furthermore, Bowen, through Family Systems Theory, emphasized the importance of the concept of *differentiation of self*, which is the ability of individuals to remain emotionally connected to the family while maintaining autonomy of thought and personal identity (Haefner, 2014). In authoritarian families, this capacity is often hampered by expectations of uniformity of values. Hocker and Wilmot (2018) emphasized that healthy and equal communication patterns are key to resolving interpersonal conflicts. When families fail to establish open

spaces for dialogue, conflicts are managed dysfunctional, and children are not given space to express differences safely. In this context, symbolic violence emerges as an expression of conflict management failures, in which emotional pressure, symbolic manipulation, and moral legitimacy are used to control the child's choices, rather than to understand or bridge differences.

METHOD

Research Design

This research used a qualitative design with an Interpretative Phenomenological Analysis (IPA) approach (Larkin et al., 2019). This approach was chosen because it aligns with the research's objective, which is to explore the experience of symbolic violence in the family during the presidential election in Indonesia, especially when dominant family members impose their political preferences on others.

Based on these objectives, this research seeks to answer the following questions:

1. What forms of symbolic violence are experienced by young adults in Indonesian families during the presidential election?
2. What factors contribute to the emergence of symbolic violence in the family in the context of political contestation?
3. How does symbolic violence affect the emotional and political autonomy of individuals in the family?
4. What strategies do individuals use to resist symbolic pressure from dominant family members?

Participants

Participants were selected through snowball sampling techniques, starting from the initial contact known to the researcher and meeting the inclusion criteria. Inclusion criteria include:

1. Indonesian citizens between the ages of 19 and 40;
2. Have the right to vote in the presidential election;
3. Experienced symbolic violence (whether verbal, emotional, or ideological) from family members during election time;
4. Willing to become a participant and sign an informed consent form.

Five participants were selected, representing diverse family backgrounds, education levels, and political experiences. To maintain confidentiality, the identities of participants are disguised using initials.

Data Collection and Analysis

Data collection was carried out from February to October 2024 through semi-structured in-depth interviews, each lasting 60 to 90 minutes. Interviews are conducted in person or through a secure video conferencing platform, depending on the situation and the comfort of the participants. The interview questions were open-ended and directed to explore participants' experiences related to political pressure in the family, communication dynamics, emotional responses, and strategies to deal with or resist such pressure.

In addition to the interviews, the researchers also recorded observations in the

form of non-verbal expressions, emotional responses, and social context during the interview. Some participants also provided supporting documents such as screenshots of conversations in family groups that contained religious or ethnic-based political pressures.

All interviews were recorded with the consent of the participants and transcribed *verbatim*. The transcript is then sent back to the participant to be verified as a form of member checking to increase the credibility of the data.

The data were analysed by following the six-step IPA procedure (Smith & Fieldsend, 2021), namely reading and rereading, initial note-taking, develop initial themes, connecting themes in each case, moving on to the next case, and identify patterns across cases. The process of coding and organising data is assisted by NVivo software version 14. To increase the accuracy of the analysis, the researcher conducts team discussions (peer debriefing) and records audit trails during the process.

Research Validity and Ethics

To maintain the validity of the research, several strategies are applied:

1. Credibility. Gained through long engagement, member checking, and peer discussion.
2. Transferability. Rich descriptions of participants' backgrounds and social contexts are provided in the results section.
3. Dependability and confirmability. Maintained through recording audit

trails and critical reflection on the researcher's position (researcher reflexivity).

All participants have signed a participation consent form and been given an explanation of data confidentiality and the right to terminate participation at any time. Names and personal information are obscured in all results reporting.

RESULTS AND DISCUSSION

Demographic Data of Research Subjects

Table 1 presents the demographic data of five research subjects. Three of the subjects are female and two subjects are male that aged between 19 to 40 years. In terms of marital status, IM and NH are still single, while RN, HN, and AB are married. Education levels vary from high school to postgraduate, with jobs including teachers, students, employees, lecturers, and content creators. The perpetrators of symbolic violence in the subject include close family members, such as biological mothers, aunts, fathers, mothers-in-law, and wife's family. Regarding the tendency of political direction, IM, RN, and HN subjects did not follow the perpetrators of symbolic violence, while NH and AB followed.

Findings of the Research Results

The collectivist family culture in Indonesia upholds hierarchy and obedience to parents, so political views are often considered part of family identity and values (Usman, 2024). As a result, there is moral pressure on young family members to follow family

Table 1
Demographic data of research subjects

Dimension	Subject IM	Subject NH	Subject RN	Subject HN	Subject AB
Age	30	19	34	40	25
Gender	Woman	Woman	Man	Woman	Man
Marital status	Single	Single	Married	Married	Married
Education	Master's degree	Senior High School	Bachelor's degree	Master's degree	Bachelor's degree
Religion	Islam	Islam	Islam	Islam	Islam
Number of children	-	-	2	3	1
Number of siblings	4	3	2	4	3
The first child	3	3	1	1	2
Work	Teacher	Student	Official	Lecturer	Content Creator
The perpetrators of symbolic violence are-	Biological mother: Aunt	Father; Mother	Father-in-law	Mother-in-law	Wife's Family
Political orientation	Not following the perpetrators of symbolic violence	Following the perpetrator of symbolic violence	Not following the perpetrators of symbolic violence	Not following the perpetrators of symbolic violence	Following the perpetrator of symbolic violence

political choices. The political experience of the New Order period that suppressed differences of opinion also shaped the attitude of the older generation towards authority and political expression, which still affects inter-generational relations to this day. Coupled with the strong influence of religious and ethnic identities in politics, political discussions in the family become complex and prone to symbolic violence wrapped in the pretext of morality or communal loyalty.

Furthermore, this study has formulated the research problem described in the previous chapter. An overview of the findings of this study can be seen in Figure 1.

Based on Figure 1, the three problem formulations have successfully found answers. The formulation of the problem

consists of the form of symbolic violence of parents against children in the tendency to vote in the presidential general election, factors influencing symbolic violence in the family during the presidential general election, and the impact of symbolic violence in the family during the presidential general election will be described in the discussion below.

Forms of Symbolic Violence by Parents against Children in the Tendency to Vote in the Presidential Election

In the elections, symbolic violence by parents often appears through linguistic and relational strategies, such as verbal abuse, stereotyping, euphemisms, dominance in discussions, gaslighting, and rejection (Weininger, 2003). In the context of family

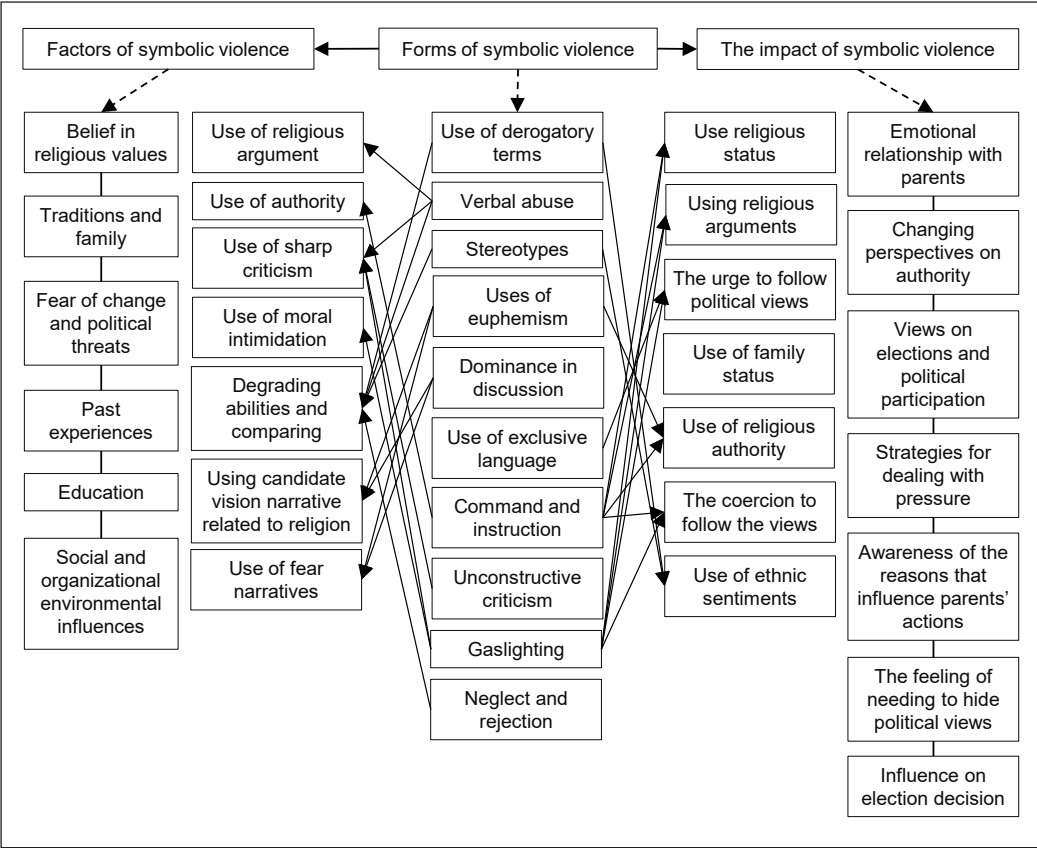


Figure 1. Findings of the research results

relationships, symbolic violence does not arise through physical domination, but rather through everyday language, moral expectations, and implicit hierarchies internalised by both parents and children. In contrast to apparent violence, symbolic violence works subtly, through shame, guilt, demands for loyalty, and moral justification that make more difficult to recognize and resist. In Indonesian families that uphold hierarchy and obedience to parents, symbolic violence often appears in the form of religious rhetoric, moral judgments, and unspoken expectations of conformity. These practices are often

considered part of normal parenting, but they can undermine the political autonomy and emotional well-being of younger family members.

The use of religious arguments to pressure children politically, such as in IM’s case that creates moral and emotional coercion. IM’s parents framed political obedience as a religious obligation, generating a gaslighting effect that led to self-doubt and guilt (Arismunandar, 2009). In Bourdieu’s view, religious discourse can project an illusion of absolute truth that silences dissent (Siregar, 2016), while Foucault notes that such authority is often

used to symbolically discipline individuals (Bernauer, 2004).

Using authority as a control tool in the context of children's political elections creates power dynamics that significantly affect individual autonomy, as experienced by IM research subjects. When parents use their positions of authority to regulate a child's political choices, this is not just an instructional act but a form of command and instruction that reinforces the hierarchy within the family. Pierre Bourdieu explained that authority in the family functions as a power mechanism that reinforces parental dominance (Colaguori, 2010) so that the child feels that the right to vote independently is not only ignored but also prohibited. In the case of IM, the mother felt entitled to regulate all aspects of her child's life, including political decisions. This limits IM's freedom to explore political options different from their parents' wishes. Domination through this authority is detrimental to children's autonomy in political decision-making. The inability to independently explore or express political views creates significant internal conflicts, in which the desire to meet parental expectations clashes with the desire to explore personal identities and values (Solomon, 2012).

Degrading a child's chosen candidate with sharp criticism without providing constructive solutions or alternatives is a form of communication that is detrimental and can potentially have a profound psychological impact. In this context, the criticism that the IM receives

against its chosen candidate is considered unconstructive because it focuses more on attacking the candidate than building a better understanding of political choice. Noam Chomsky stated that this kind of criticism, which is not equipped with suggestions or solutions, only serves to degrade the child's position and make him feel that his political choices are worthless (Purdy, 1994). This makes IM feel that his views are not appreciated. As a result, doubts arose in the IM about the validity of his political choices. This sense of inferiority can create more significant uncertainty in future political decision-making. This symbolic violence is also marked by verbal abuse.

Furthermore, gaslighting instills doubt in children's political choices, making them feel irrational or disobedient. In this context, Pierre Bourdieu explains that gaslighting can make children feel guilty and doubt their capacity to think rationally (Fatmawati, 2020). In NH's case, his mother considered herself a child who never obeyed and was reluctant to be freed from the shackles of leaders she considered unjust. This creates an atmosphere full of emotional pressure. By using strong religious and moral arguments, NH was made to feel that his political choices were wrong and reflected more profound moral deficiencies. This causes NH to feel trapped in the conflict between his will and the perceived moral demands of his parents, which further aggravates the psychological burden he experiences. Judith Butler notes that this kind of verbal attack weakens a child's position in the discussion, reducing their ability to think critically

and independently.(Butler, 2021) In this case, NH feels intimidated by a negative assessment of his ability to assess existing political choices.

Degrading children's critical abilities through comparisons with students of the 1998 generation creates a significant psychological impact on NH's self-confidence, where Erving Goffman highlights that this kind of comparison is a form of stigmatisation that makes children feel inferior if they are not able to meet the standards that are considered higher (Wilson & McGuire, 2021). NH experiences intense pressure when her father attributes her lack of critical ability to an inability to think deeply, causing NH to feel degraded and lose her identity as an individual who has the potential to contribute to political discourse. Critical skills that are considered indicators of high intellect, if not met, give rise to feelings of inferiority. Furthermore, the use of stereotypes about a particular generation reinforces the symbolic dominance of parents, as explained by Pierre Bourdieu that stereotypes are used to maintain power structures within the family, leaving the child trapped in high and unrealistic social expectations (Thapar-Björkert et al., 2016). NH feels pressured to conform to the standards expected of previous generations. This tendency reflects Bourdieu's concept of symbolic violence (Bourdieu, 2017), in which individuals submit not through physical coercion, but through moral obligations that they feel, which have been internalized over time as part of their family habitus.

The use of religious-related vision narratives by NH parents serves as a form of covert domination, in which political discussion is framed in seemingly positive religious values but limits the exploration of alternative options (N. Thomas, 2021). NH's parents associate political choices with religious norms. Hence, NH feels pressured to support specific candidates perceived as more "religious," and critical analysis is considered an act of disobedience to religious values.

The use of religious status by RN parents to suppress political choices reflects social control that limits individual freedom. RN felt pressured by his father-in-law to choose specific candidates based on religious views. Michel Foucault stated that using religious status strengthens the unquestionable hierarchy of power (Bernauer, 2004), leaving RN caught between her family's expectations and her desires. In addition, the practice of gaslighting makes RNs doubt their judgment and critical abilities, creating symbolic subordination (Colaguori, 2010).

The use of religious arguments to regulate children's political choices is an intense form of symbolic control, especially in religious families. RN parents use religion to dictate political choices, emphasizing that voting for a particular candidate is part of religious morality. This left the RN in a moral dilemma, where his political choices were perceived as a religious responsibility with significant consequences. Pierre Bourdieu called this symbolic subordination, suppressing the autonomy of the RN and encouraging him to submit to the will of

his parents for the sake of religious purity. (Wacquant, 2013).

The insistence on following parents' political views for the family's good name and religion is a form of symbolic control. In HN's case, her mother-in-law pressured her to support candidates supported by religious organisations in which her husband's extended family was participating, considering that some of her family members were leaders of the mass organisations. Judith Butler calls this use of exclusive language symbolic violence (Butler, 2021). By associating the excellent name of the family and religion with political choices, children lose their autonomy and feel that they have to follow the family to maintain their image.

The use of religious authority as a tool of political control in the family is very effective in pressuring children to follow their parents' political views. In the case of HN, her mother-in-law emphasised choosing candidates suggested by her role model religious leaders (*kiai*), citing emotional and spiritual closeness to the candidate. Michel Foucault stated that religious authority strengthens the power structure in society (Bernauer, 2004). This deprived the HN of personal freedom because opposing political views meant opposing religious authority.

Coercion follows the political views of parents by emphasizing moral and religious aspects, trapping the child in severe emotional distress. In AB's case, her parents considered her political responsibility a moral obligation to the state and religion. Pierre Bourdieu calls this use of moral

arguments symbolic subordination, in which social forces, such as religion and morality, pressure individuals to submit to parental authority (Wacquant, 2013). For AB, political choice is no longer an individual right but a social obligation that must be fulfilled according to religious and moral norms. This left AB in a moral dilemma: rejecting parental choices meant violating sacred values. Judith Butler added that moral arguments can create deep guilt (Butler, 2021).

The use of narratives of fear and ethnic sentiments to suppress children's political choices is a common tactic used to create anxiety against other groups. In AB's case, her mother-in-law took advantage of ethnic stereotypes to instill fear that if a particular candidate were not chosen, other ethnic groups would dominate. Teun Van Dijk calls these ethnic stereotypes symbolic violence that strengthens power structures by emphasising ethnic differences as a threat (Van Dijk, 2002). This creates psychological pressure that makes AB feel that his political choices must be based on being vigilant against the threat constructed. Pierre Bourdieu added that these stereotypes shape society's way of thinking and create a social hierarchy that strengthens the power of the dominant group (Blommaert, 2015).

Although the forms of symbolic violence differed, the patterns of domination shared a similar structure. IM, NH, and AB experienced strong moral and religious pressure, including theological arguments, sharp criticism, and dismissal of their autonomy. RN and HN show how symbolic

power also stems from extended families, such as in-laws or religious figures. While IM and AB faced direct pressure from parents, NH and RN were gaslighted through generational or religious superiority. HN and AB also encountered control through kinship and community expectations. Despite differing contexts, all cases reveal that symbolic violence operates systemically through internalized values, morality, and authority reflecting how family habitus in electoral politics reinforces broader social hierarchies.

Factors Influencing Symbolic Violence in the Family during the Presidential Election

Experts argue that a variety of factors, including education, past experiences, social environment, and organisational affiliation, influence symbolic violence. Symbolic violence occurs when social dominance is accepted as “normal” through individuals internalising dominant values often rooted in the social and educational environment (Bourdieu, 2017). Ideologies enforced through the state’s ideological apparatus, such as schools and families, play a role in strengthening this symbolic violence (Althusser, 2006). In addition, a homogeneous social environment within a particular organisation or group reinforces symbolic control because individuals feel pressured to conform to established norms. These factors create conditions where symbolic violence continues to be maintained in a broader social context (Giddens & Sutton, 2021).

Research by Lahire shows that parents’ values shape the younger generation’s political attitudes. Parents with strong religious beliefs often perceive political choices as a reflection of morality and family identity (Lahire, 2003). If a child chooses a different candidate, they can be considered a betrayal of family values, creating significant psychological pressure. Parents can use unfounded messages from social media to discredit other candidates in elections. This is in line with Bourdieu’s view of ideological dominance maintained through invisible violence, making it difficult for children to develop independent political views (Krisdinanto, 2014).

Family traditions and values are key factors that trigger symbolic violence in the context of general elections. Previous research by Miller and Sears has shown that parents’ political orientation is often influenced by values that are passed down from generation to generation in the family, which are then passed on to children (Miller & Sears, 1986). Meanwhile, within the framework of Bourdieu’s theory, family traditions, and values that influence political choices are a form of habitus, which is a mental structure that is instilled through socialization from an early age and influences the way a person sees the world and makes decisions (Bourdieu, 2017). Parents’ strong habit of family traditions in politics often leads them to neglect their children’s autonomy in voting. The study results show that when children choose different candidates, this can be perceived as an act of disloyalty, strengthening the

political dominance of parents within the family.

Previous research by Furedi highlighted how fear of external threats, such as political change, can reinforce authoritarian behaviour in the family. Parents who feel threatened by political change often respond with stricter measures of control over their children (Furedi, 2005). This fear is reflected in parents' efforts to ensure their children do not vote for candidates perceived to bring dangerous change in elections. IM subjects revealed that their parents often worry that different political choices can negatively impact the family personally and socially. These concerns reinforce the pressure on children to follow the same political views to protect families from perceived threats.

Past experiences and educational backgrounds play an important role in shaping parents' political attitudes, which are then passed on to their children through the mechanism of symbolic violence. Pierre Bourdieu explains that symbolic violence is an act that imposes norms, values, and worldviews through subtle means that are not seen as direct coercion but have a significant impact on the subject who receives it (Weininger, 2003). Parents who have a conservative educational background or past political experience tend to feel that their political views are the only right choice, so they feel entitled to impose those views on their children.

Pierre Bourdieu, through his theory of symbolic violence, explains that dominant power operates subtly through internalised social practices so that individuals

unconsciously follow the rules of non-physical violence (Bourdieu, 2017). He also introduced the concept of *habitus*, which shows how social experiences shape an individual's perspective, including in politics. The parental *habitus* formed by a uniform social environment creates an authoritarian mindset transmitted to the family (Oliveira & da Silva, 2022). Political views considered correct by the social group of parents are part of a *habitus* that is difficult to change, and parents feel the need to assert it to their children (Ulya, 2017). This process creates symbolic violence in the form of control over children's political choices, which is often seen as protection against external political threats.

Although the backgrounds and social contexts of each participant were different, the factors that influence the occurrence of symbolic violence in the family showed similar structural patterns. IM and AB, for example, are under intense political pressure from parents who have conservative ideological experiences and deep religious upbringing. This pattern shows how *the habitus* formed from past experiences and the educational environment creates certain moral beliefs that are then inherited and imposed on the child. Meanwhile, RN and HN show how a homogeneous social environment thick with religious organisational affiliations reinforces the demand for political uniformity within the extended family. NH, despite coming from a seemingly more flexible family, remains under intense pressure through narratives of fear and generational comparison, another

form of symbolic control that stems from broader social structures. In general, the participants showed that symbolic violence does not arise solely from the personal intentions of parents, but is rooted in value systems that have been internalised through a long process of socialisation: from formal education, family culture, to social and religious affiliations. In line with the views of Bourdieu and Althusser, symbolic power in these cases works through social structures that shape unconscious ways of thinking and acting, so that dominance becomes seemingly natural and difficult to question even in domestic spaces.

The Impact of Symbolic Violence on the Family during the Presidential Election

Symbolic violence, according to Pierre Bourdieu, is an invisible power that individuals accept as natural (Weininger, 2003). In parent-child relationships, symbolic violence occurs when parents instill political views that are considered normative without opening up space for discussion. This internalisation process is often unconscious by the individual but results in emotional distancing. This tension creates a change in emotional state (Conway, 2017), especially when the parents do not recognize or value the child's opinion. The subject of HN, for example, felt less appreciated when his views differed, which widened the emotional distance between them. Symbolic violence operates in the family structure by demanding obedience without equal dialogue, leaving the child feeling isolated and lacking a

strong emotional bond with the parents (Conway, 2017).

The change in perspective on authority experienced by informants can be explained through Pierre Bourdieu's theory of symbolic power, which emphasises how power can operate indirectly and disguised through symbolic mechanisms (Mustikasari et al., 2023). In the family context, parents often play the role of authority figures considered to have legitimacy in determining political views and other values. Symbolic violence arises when individuals are forced to accept these values as the norm in the absence of room for questioning. However, the informants' experience showed resistance to this symbolic power, and they began to question the views of their parents and other authority figures. This signifies a shift in the symbolic power structure from passive obedience to independent thinking.

Max Weber's theory of authority is also relevant to understand this change. Weber distinguishes between traditional authority, which is based on habit and social acceptance, and rational authority, which is built on critical evaluation (Conger, 1993). In this case, parental authority initially serves as unquestioned traditional authority. However, over time, informants developed a critical attitude more aligned with rational authority.

The research results on the impact of symbolic violence in elections can be explained through John Stuart Mill's theory of individual freedom (Loizides et al., 2023). Mill argued that individual freedom, including voting, is essential for human development. Despite experiencing

pressure from their families, informants such as IM and NH respect the freedom to make political choices independently. This award aligns with Mill's idea that freedom of thought and choice is the key to the progress of individuals and society. The theories of political participation from Verba, Nie, and Kim are also relevant, stating that political participation is a means of expressing preferences and influencing public policy (Nie et al., 1974). In addition, the informant's experience can be analysed through James C. Scott's theory of symbolic resistance, which suggests that resistance to domination can occur symbolically, such as sticking to political choices despite pressure (Ho, 2011).

The results of research on strategies for coping with parental pressure in a political context can be analysed using the family conflict theory of Murray Bowen, which emphasizes the importance of self-differentiation in family relationships (Bridge, 2019). In this study, informants such as IM, NH, and AB tended to avoid political discussions to avoid conflicts with parents. Bowen argues that individuals with low self-differentiation often struggle to express their views openly in stressful situations, such as political differences. Their choice to avoid discussion or hide their political views reflects an effort to maintain family harmony despite having to suppress self-expression. This suggests that pressure from parents creates an imbalance between the need to express oneself and maintain a good relationship with the family. This strategy of avoiding conflict can also be analysed through the

theory of social harmony in the context of collectivist culture, as proposed by Geert Hofstede. In collectivist cultures, maintaining harmonious relationships in the family is often prioritised over openly expressing disagreements (Bridge, 2019).

Discussions about informant awareness of the influence of parental actions in political contexts can be analysed through political socialisation theory, which emphasises that political values and views are passed down from generation to generation through family interactions. According to Almond and Verba, political socialization is how individuals acquire political attitudes, values, and beliefs (Potulski, 2020). The informant realized that parents' actions, including imposed political views, were greatly influenced by their background and education. For example, IM points out that the previous generation's authoritarian upbringing shaped their parents' political views. This understanding is in line with the theory of political socialisation, which emphasises how parents' experiences affect how they educate their children regarding political choices.

In addition to political socialization, Pierre Bourdieu's theory of habitus is also relevant for understanding the impact of parents' backgrounds and life experiences on their views (Hallatu, 2021). Habitus is a disposition system resulting from the process of socialisation of individuals in a particular social environment (Mustikasari et al., 2023). In this context, the actions of parents, as expressed by the RN subject, are influenced by "their work circles, life experiences, and friends of the mass

organisation,” suggesting that their habitus comes from their life experiences and social interactions. This theory explains that parents’ political views do not arise from a vacuum but instead reflect their social structure, influencing how they guide children in a political context.

The theoretical discussion of the impact of symbolic violence on the feeling of the need to hide political views can be explained through the theory of symbolic violence by Pierre Bourdieu. Symbolic violence refers to a form of domination in which individuals submit to norms and rules without realising that they are being dominated (Weininger, 2003). In this context, parents become symbolic agents of power who control political discourse in the family, so children need to hide their political views to avoid conflict. For example, IM and AB subjects prefer hiding their political opinions. This act reflects the internalisation of the symbolic power of parents, where children feel they cannot express different views. This theory explains how children unconsciously accept this condition as “normal” in family power dynamics.

In addition, Erving Goffman’s impression management theory can also be used to understand the behaviour of hiding political views. According to Goffman, individuals often manage the impression they create in front of others to avoid conflict or maintain self-image (Pernelet & Brennan, 2023). In this case, children try to manage their impression in front of their parents by not expressing conflicting political views to avoid muddying family relationships. The

social control theory is also relevant in this discussion, especially in explaining how parental social pressure affects children’s behaviour. Social control refers to the mechanisms society uses, including the family, to maintain order and adhere to applicable norms (Costello & Laub, 2020).

In analyzing the influence of parental pressure on the decision to choose, the theory of *symbolic violence* from Pierre Bourdieu is very relevant. This theory explains that symbolic violence is a form of domination that is carried out subtly and indirectly, in which the dominated party accepts and obeys specific rules or values without realising it (Schubert, 2022). In this context, pressure from parents to follow particular political views can be understood as a form of symbolic violence experienced by children. As seen in the NH and AB Subjects, they follow the symbolic pressure of parents to avoid conflict and maintain family harmony. This reflects how parent-driven family norms create emotional and social pressures for children, ultimately influencing their political decisions. These findings are consistent with Bandura’s Social Learning Theory, in which political attitudes and behaviours are absorbed through repeated exposure and reinforcement in family settings.

The theory of *Social Learning* by Albert Bandura can also be used to understand children’s behaviour in response to parental pressure (Muneer, 2021). According to Bandura, individuals learn through observation and imitation of the behaviour of others, especially people who have

authority or emotional closeness (Wahyuni & Fitriani, 2022). In this case, children such as NH and AB tend to follow their parents' political views and learn and imitate the political attitudes dictated by the family environment.

Although each participant experienced symbolic violence in different contexts, there were consistent patterns that emerged. IM, NH, and AB tended to hide their political preferences in order to maintain family harmony. This reflects the internal pressure resulting from parental symbolic dominance. In contrast, RN and HN experienced more complex dynamics, where influence came not only from parents but also from extended family and religious institutions. These findings show that symbolic violence affects not only individual behaviour but also reinforces obedience within wider social networks. Participants such as IM and NH showed signs of beginning to question their parents' political values, which indicates a shift from traditional authority to a more rational mindset as described by Weber. However, they still avoided direct confrontation, suggesting that the collectivist values that prioritise harmony over conflict remain influential. Symbolic violence therefore shapes both behaviour and inner conflicts, including the way individuals manage impressions and negotiate political autonomy in subtle ways.

As researchers who live within collectivist and religious cultures, we are aware that some forms of symbolic violence may be perceived as normal or even as moral

advice. This awareness makes us reflect on our own positionality and challenges us to stay critical while respecting the cultural context of the participants. The stories we heard were filled with tension but also love and loyalty, which shows that symbolic power often works not through hostility, but through affection and moral duty.

This study highlights that symbolic violence during presidential elections in Indonesia does not only occur in the public sphere. It also penetrates private family life through parental authority, religious norms, and social expectations of obedience. These findings underscore the need to promote a more humanistic and dialogical form of democracy within the everyday context of family life.

CONCLUSION

The study found that symbolic violence in the family during elections manifested itself through subtle but effective parental dominance, including the use of authority, moral intimidation, sharp criticism, and narratives of religion and family status to legitimise their political views. Parents often create a narrative of fear regarding the consequences of choosing a candidate that is considered contrary to religious values, thereby limiting children's freedom to make political choices. A homogeneous social and organizational environment reinforces the authoritarian attitudes of parents, encouraging them to maintain conservative views. The psychological impact on children is significant; They feel compelled to hide different views to maintain family harmony,

which creates emotional distance and leads to unhealthy family relationships, where symbolic control replaces open dialogue.

Implications of the Study

This research provides theoretical and practical implications. Theoretically, this study extends Bourdieu's concept of symbolic violence into the context of political interactions within the family, by showing how domination can take place subtly through parental authority, religious values, and sociocultural norms. The study also emphasises the importance of respectful communication to shape individual political autonomy. In practical terms, these findings offer insights for policymakers, educators, and civil society organizations to encourage democratic values from the family environment. Efforts to improve political literacy, critical thinking, and open dialogue at home can help reduce coercive dynamics and support political awareness that respects differences.

Limitations and Recommendations for Future Research

While this study provides in-depth insights, there are some limitations that need to be noted. The use of a small sample of five participants limited the transferability of the findings to a wider population. In addition, the qualitative Interpretative Phenomenological Analysis (IPA) approach used in this study did not allow quantitative measurement of the prevalence of symbolic violence in the context of a larger society.

Further research is recommended to involve a larger and more demographically and culturally diverse number of participants in order to make the scope of the findings broader and more representative. A mixed-methods or quantitative approach can also strengthen results by complementing the depth of qualitative insights through measurable data. Longitudinal studies can also provide a better understanding of the dynamics of symbolic violence in family political communication over time or across election periods.

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English Speaking Anxiety among Primary Students: Evidence from Tamil Vernacular Schools in Selangor, Malaysia

Gokilavani Shanmugan¹, Vijayaletchumy Subramaniam^{2*}, and Mohamed Thariq Hameed Sultan^{3,4}

¹Department of Foreign Language, Faculty of Modern Language and Communication, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia

²Department of Malay Language, Faculty of Modern Language and Communication, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia

³Department of Aerospace Engineering, Faculty of Engineering, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia

⁴Universiti Putra Malaysia Press, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia

ABSTRACT

Speaking anxiety is widely recognised as a major barrier for second language learners. This study aims to examine the level of English-speaking anxiety among primary Tamil school students in Selangor, Malaysia. A quantitative survey design was employed using an adapted version of the Foreign Language Classroom Anxiety Scale (FLCAS). A total of 120 Year 6 students from two Tamil vernacular schools in Bandar Kinrara and Serdang participated. The 20-item Likert-scale questionnaire was validated through a pilot study and expert review. Descriptive analysis was conducted to measure the overall level of anxiety and item-specific responses. The results revealed a high level of speaking anxiety among students ($M = 4.031$, $SD = .226$). The highest anxiety was recorded when students were directly asked to speak by the teacher ($M = 4.683$), while the lowest was reported for confidence in speaking before peers ($M = 1.617$). They also highlight how classroom practices and socio-cultural influences can reinforce avoidance behaviors. This study contributes to the growing body of research on language anxiety by offering empirical evidence from an underrepresented context Tamil vernacular schools in Malaysia. It underscores the importance of teacher practices and culturally responsive strategies, such as games, songs, and non-threatening speaking activities, to reduce anxiety. The study is one of the first to quantify speaking anxiety among Tamil primary students in Malaysia, providing valuable insights for

teachers, policymakers, and researchers seeking to design interventions that build confidence and foster inclusive English-speaking classrooms.

Keywords: English speaking, language anxiety, Malaysia, primary students, second language learning, speaking anxiety, Tamil vernacular schools

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E-mail addresses:

gokilavani_4060@yahoo.com (Gokilavani Shanmugan)

vletchumy@upm.edu.my (Vijayaletchumy Subramaniam)

thariq@upm.edu.my (Mohamed Thariq Hameed Sultan)

* Corresponding author

INTRODUCTION

English has long been embedded in Malaysia's education system, functioning as both a global lingua franca and a vital medium for socioeconomic mobility (Nagappan, 2022). Despite extensive policy reforms aimed at strengthening English proficiency, the colonial legacy of vernacular Tamil and Chinese schools continues to influence the ways in which language is taught, acquired, and experienced within the Malaysian context (Ali et al., 2021; Tien & Jamil, 2022). These legacies intersect with broader demographic, socioeconomic, and cultural dimensions, creating multilayered challenges that shape students' language learning trajectories across different school types (Ismail & Aziz, 2023).

Among these contexts, Tamil vernacular primary schools occupy a distinct position in the education landscape. Catering largely to students from lower socioeconomic and working-class backgrounds, Tamil schools often contend with limited resources, weaker infrastructure, and sociocultural disadvantages that can impede students' acquisition of English (Maniam et al., 2024; Rajendran, 2021). One of the most pressing yet underexplored issues in this setting is English-speaking anxiety, which directly affects students' confidence, communicative competence, and long-term academic outcomes (Horwitz, 2020; Fattahi Marnani & Cuocci, 2022). Chinese vernacular schools on the other hand, have the advantages in terms of demography whereby most Chinese vernacular schools

are situated in highly urbanized cities in Malaysia (Qi et al., 2024). Unlike the Tamil schools, Chinese schools have the advantage of having students who are from a better socioeconomic background (Rahman & Azmawati, 2022). However, there are incidents of anxiety when speaking in English among students in Chinese vernacular schools in Malaysia because of critical factors such as dominance of the mother tongue and cultural beliefs (Chun & Sathappan, 2018).

Language anxiety, particularly in speaking, has been widely documented as a major affective filter in second language acquisition (Jugo, 2020; Russell, 2020). For Tamil school students, however, such anxiety is compounded by sociocultural dynamics, including parental educational backgrounds, home literacy practices, and peer influences, which can reinforce feelings of linguistic inadequacy (Sundaram & Rethinasamy, 2021). In addition, the lack of supportive classroom environments and the persistence of negative experiences—such as ridicule or punitive feedback—often leave lasting psychological impacts that further diminish learners' willingness to communicate (Maniam et al., 2024; Peng & Xie, 2022).

Recent scholarship emphasizes that anxiety in English speaking is not only a matter of individual psychology but also a socio-educational phenomenon, rooted in systemic inequities and cultural identity struggles (Rashid & Yunus, 2022; Shukri & Shaari, 2023). Tamil school students' heightened anxiety can therefore

be understood as an outcome of both micro-level classroom practices and macro-level societal structures. Yet, despite a growing body of research on language anxiety in Malaysian schools, there remains a notable gap in the literature concerning its manifestation in vernacular school contexts, especially Tamil schools. Most existing studies adopt broad perspectives on language learning challenges in Malaysia without attending to the unique cultural and socioeconomic position of Tamil school students (Nagappan, 2022; Tien & Jamil, 2022).

This lacuna underscores the need for culturally responsive pedagogical approaches that can better address the affective and psychological dimensions of language learning. By acknowledging the specific challenges faced by Tamil primary school students, teachers and policymakers can develop interventions that mitigate speaking anxiety while enhancing students' confidence in English communication (Azman, 2021; Hashim & Yunus, 2022).

Against this backdrop, the present study focuses specifically on English-speaking anxiety among Year 6 students in Tamil primary schools in Selangor, Malaysia. This demographic is particularly significant as Year 6 marks a critical transition point before students' progress into secondary education, where the demands for English proficiency become increasingly pronounced. The study aims to analyze the level of English-speaking anxiety in this cohort, thereby contributing empirical evidence to an underexplored

area in Malaysian education research. More importantly, the study seeks to inform the development of improvised and culturally responsive teaching practices that are sensitive to the lived realities of Tamil school students, ultimately advancing efforts to create more equitable language learning environments.

BACKGROUND OF STUDY

The reality that students in Tamil vernacular primary schools often struggle to attain proficiency in the English language has long been a concern among teachers, educationists, and policymakers in Malaysia (Thang, 2020). English continues to play a central role in Malaysia's education system, functioning as a global lingua franca and an essential tool for academic advancement, employment opportunities, and participation in the wider knowledge economy (Kho et al., 2025; Nagappan, 2022). However, despite the recognition of its importance, a considerable number of students, particularly those from socioeconomically disadvantaged communities, experience difficulties in developing confidence in English communication. Among these challenges, speaking anxiety stands out as a critical barrier to effective learning and communicative competence.

Research indicates that anxiety related to speaking English often emerges in the early years of formal education and, if unaddressed, intensifies as students' progress into secondary and tertiary levels (An et al., 2022; Kassim & Maniam, 2024). This progression underscores the

importance of examining language anxiety at the primary school level, particularly in Year 6, where students are preparing to transition into more demanding stages of education. Idrus (2021) highlights that the roots of such anxiety are multifaceted, extending beyond individual psychological dispositions to include sociocultural and structural factors. Parental education levels, cultural perceptions of English as a foreign language, and financial limitations all shape students' access to resources, their confidence, and their willingness to engage in English communication.

Classroom observations have further revealed that students in Tamil schools frequently avoid English lessons or remain passive during classroom interactions, primarily due to fear of making mistakes, ridicule, or perceived incompetence (Hassan et al., 2021). Such avoidance behaviors are not simply academic challenges but also reflect deeper cultural and social attitudes toward language learning. In Tamil vernacular schools, where students may have limited exposure to English outside the classroom, this anxiety is often compounded by insufficient opportunities for authentic practice and a lack of supportive environments for risk-taking in language use (Rashid & Yunus, 2022; Shukri & Shaari, 2023).

A review of current literature reveals that, although language anxiety has been extensively studied in the field of second language acquisition, very few empirical studies have been conducted within the specific context of Tamil vernacular

schools in Malaysia. A systematic search across major academic databases such as Google Scholar and ERIC confirms that there are no comprehensive studies examining English-speaking anxiety among primary Tamil school students. Instead, the available literature tends to focus either on secondary and tertiary education (Ahmad, 2023; Kho et al., 2025) or on general pedagogical challenges in vernacular schools (Ali, Hamid, & Moni, 2021). Research addressing pedagogical innovations in Tamil schools exists, but the focus rarely extends to affective factors such as speaking anxiety. This scarcity of targeted research is deeply troubling given the persistent underperformance of Tamil vernacular school students in English and the clear implications of anxiety for academic achievement and social mobility.

Therefore, the urgency of the present study is underscored by two key realities. First, English-speaking anxiety among Tamil vernacular school students remains an underexplored yet highly consequential issue, demanding closer attention from researchers and practitioners alike. Second, there is a pressing need for empirical evidence that can inform culturally responsive teaching strategies tailored to the unique sociocultural contexts of Tamil primary schools. By addressing this gap, the present research contributes not only to the academic discourse on language anxiety but also to practical efforts in improving educational equity and fostering student confidence in English communication.

Spielberger's State-trait Anxiety Theory

The most fundamental element to understand in this context is the concept of anxiety and how humans develop anxiety. Ultimately, Spielberger's State-Trait Anxiety Theory (1966) provides the most apt theoretical foundation in understanding anxiety in the context of English language speaking among second language learners. In layman's terms, the elaborate theory by Spielberger (1966) established two categories of anxiety which are state and trait anxiety. Individuals may exhibit either one type of anxiety or at times, a mixture of both the types of anxiety (Spielberger, 1966). The state anxiety is a spontaneous response towards a sudden situation or stimulus (Stella, 2022). Additionally, Charbonneau et al (2022) stated that state anxiety is a sudden reaction and it differs according to the situation. Raadha Krishnan and Sharmini (2024) reported that Tamil school students project state anxiety especially when they are suddenly required to respond in the English language. It is easy to identify the state anxiety because the common signs of stuttering, nervousness and physical symptoms can be seen in the individuals (Nair et al., 2022).

On the contrary, individuals who have a calmer and more composed respond towards sudden situations are said to be in the category of trait anxiety (Spielberger, 1966). A student with trait anxiety is often a student who is able to think carefully and respond appropriately even when facing a sudden situation which requires them to speak in the English language.

Research experiments such as the one by Li et al (2021) reported that when students have the mastery of a subject matter, their anxiety, especially state anxiety reduces significantly. In the English language education context, Spielberger's (1966) theory has been utilised extensively especially in order to show how second language learners perceive English language speaking. Raman et al. (2022) reported that Tamil vernacular school students lacked motivation and enthusiasm in English lessons when it was conducted online during the pandemic, mainly because of their anxiety, specifically state anxiety.

In this study, Spielberger's framework is instrumental in analysing how English-speaking anxiety emerges among Tamil primary school students. By differentiating between situational and trait-based anxiety, the theory provides valuable insight into why students avoid speaking tasks and how interventions such as supportive teaching strategies can be designed to reduce anxiety and build confidence.

The Novelty

The novelty of the present study lies in its focused examination of English-speaking anxiety among Tamil vernacular school students, a context that has received insufficient scholarly attention despite its significance within Malaysia's multilingual and multicultural education system. While language anxiety has been extensively researched in second language acquisition studies (Horwitz, 2020; Kassim & Maniam, 2024; Kho et al., 2025), most existing

literature has been general in scope, overlooking the challenges encountered in vernacular school settings where socioeconomic disadvantage, cultural identity, and limited exposure to English converge to shape students' linguistic experiences. By specifically situating the inquiry within Year 6 Tamil primary schools in Selangor, this study addresses an underexplored gap and generates context-specific insights that extend beyond broad generalizations about Malaysian learners. Year 6 students were specifically selected since they have gone through six years of primary education with the English language curriculum which includes speaking skills. This also reflects that the level of anxiety in English language speaking may differ across different groups of students. This is because students from different age groups have different levels of exposure towards the English language at different periods of their entire primary schooling.

A further contribution of this research is its pedagogical applicability for teachers, especially those serving in Tamil vernacular schools. The findings underscore the urgency of equipping teachers with strategies to identify and address English-speaking anxiety in their classrooms. Rather than relying solely on standardised, top-down curricular reforms, the study provides a foundation for teacher-led action research at the school level, encouraging educators to design interventions that are sensitive to their students' unique sociocultural and psychological realities.

Teachers, therefore, are positioned not only as implementers of policy but also as active agents of change, capable of creating safe learning spaces that minimize fear, reduce embarrassment, and build communicative confidence among students.

Moreover, the novelty of this study extends to its holistic framing of language anxiety as a socio-educational issue rather than a purely psychological one. By situating English-speaking anxiety within the broader network of influences family literacy practices, community attitudes toward English, and structural inequities in resource allocation the study demonstrates that responsibility for alleviating anxiety does not rest solely on the individual learner. Instead, it calls for a shared commitment from multiple stakeholders, including parents, community leaders, and educational policymakers. For instance, families can support learners by integrating English into everyday interactions in informal, non-threatening ways, while community organisations can create platforms for authentic communicative practice through extracurricular clubs, peer mentoring, or cultural events conducted in simple English.

At the societal level, this research contributes to the ongoing discourse on equity in language education in Malaysia. By highlighting the disproportionate anxiety experienced by Tamil school students, it challenges assumptions of uniformity in English acquisition and calls attention to the layered disadvantages that vernacular school learners face. This

perspective encourages policymakers and education planners to rethink the implementation of language policies through a more culturally responsive lens, ensuring that interventions are tailored to the lived realities of different school types rather than applying a one-size-fits-all model.

Finally, the study offers an important theoretical contribution by reaffirming the interconnectedness of affective, social, and structural dimensions in second language learning. Nervousness, fear of negative evaluation, lack of self-confidence, and fear of mistakes are not merely personal traits, but outcomes shaped by a complex interplay of classroom dynamics, peer interactions, and societal expectations. In this regard, the research does not only diagnose the problem of speaking anxiety but also advances an agenda for its practical resolution through collaborative, culturally grounded, and community-driven strategies.

Taken together, the novelty of this study rests in its contextual specificity, pedagogical relevance, and sociocultural framing, offering a fresh perspective that enriches both the theoretical literature on language anxiety and the practical discourse

on improving English language education in Malaysia’s vernacular schools.

METHODS

Research Design

This study employed a quantitative survey research design to investigate the level of English-speaking anxiety among Tamil primary school students in Selangor (Table 1). The decision to utilise a quantitative approach was guided by its strength in capturing measurable trends and identifying patterns across a large cohort of respondents, thereby providing an empirical basis for understanding the prevalence and intensity of language anxiety (W. Creswell & D. Creswell, 2021; Kho et al., 2025). In particular, the survey design enabled the systematic collection of data concerning students’ perceptions and experiences of anxiety within classroom speaking contexts, which are central to the phenomenon under investigation.

The target population for the study comprised Year 6 pupils in Tamil vernacular schools, as this group represents a critical juncture in Malaysia’s education system. Year 6 is the final stage of primary education, where pupils are expected

Table 1
Summary of research design

Research Design Aspects	
Design	Quantitative Survey Design
Instrument	Questionnaire
Population	Year 6 students from Bandar Kinrara and Serdang Tamil Primary School in Selangor
Sample	120
Data Analysis	Descriptive Analysis

to demonstrate readiness for secondary schooling, including the capacity to engage with English as a compulsory subject (Nagappan, 2022; Kassim & Maniam, 2024). Given the transitional nature of this stage, the ability to speak English confidently becomes increasingly important for students' academic and social integration in secondary school.

A total of 120 pupils were selected through random sampling procedures. Two Tamil primary schools in Selangor were chosen as research sites, and a computer-based randomiser was used to ensure equal probability of selection, thus enhancing the representativeness of the sample (Sekaran & Bougie, 2020). Random sampling was adopted to minimise bias and to strengthen the generalisability of findings within the Tamil vernacular school context.

The research instrument was a 20-item questionnaire, adapted from the well-established Foreign Language Classroom Anxiety Scale (FLCAS) originally developed by Horwitz, Horwitz, and Cope (1986). The FLCAS has been extensively validated in a variety of educational and cultural settings and is considered one of the most robust tools for measuring language-related anxiety (An et al., 2022; Russell, 2020). In this study, the instrument was modified to emphasise items that directly relate to speaking anxiety in classroom contexts, thereby ensuring greater alignment with the research objectives. The adaptation process first began with an expert review. A panel comprising three experts who are an English language panel head in a

primary school, a national trainer for English language curriculum development and an English language lecturer in a local public university. Next, the survey was subjected to a series of pilot tests where items were identified, restructured and modified. Several items were removed prior to the pilot test cycles. The final pilot test involved 30 pupils who were randomly selected. The results were analysed using the Cronbach's Alpha test and the survey questionnaire proved to be very reliable ($\alpha = 0.87$).

Each item was measured on a five-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). This scaling approach was chosen because it allows for nuanced responses and facilitates quantitative analysis of subjective experiences (H. Boone & D. Boone, 2021).

To analyse the collected data, descriptive statistical methods were employed, focusing primarily on mean scores and standard deviation. Descriptive statistics provide a comprehensive overview of participants' responses, highlighting central tendencies and variability in the level of English-speaking anxiety among the sample group. Such analysis is especially valuable in identifying overall patterns of anxiety, as well as variations among students based on self-confidence, willingness to communicate, and fear of negative evaluation (Kho et al., 2025; Rashid & Yunus, 2022). While descriptive statistics do not establish causal relationships, they are essential in the preliminary exploration of educational phenomena, serving as the foundation for

deeper inferential or qualitative analyses in subsequent studies (W. Creswell & D. Creswell, 2021).

By employing this design, the study ensures methodological rigour and contextual relevance, thereby enabling a reliable assessment of speaking anxiety levels among Tamil vernacular school students. The findings derived from this approach are expected to provide actionable insights for teachers and policymakers, particularly in developing culturally responsive strategies to mitigate speaking anxiety and support students’ transition from primary to secondary schooling.

Ethical Considerations

Ethical procedures were strictly observed. Permission was obtained from the participating schools, and informed consent was secured from students and their parents. Anonymity and confidentiality were assured, and participation was voluntary. By safeguarding the rights of young learners, the study ensured that their voices could be heard without fear of repercussion, reflecting the importance of treating pupils’ experiences with sensitivity and care.

Table 2
Descriptive statistics

	Overall	Valid N (listwise)
N	120	120
Minimum	3.45	
Maximum	4.55	
Mean	4.031	
Std. Deviation	.226	

RESULTS

Table 2 shows the descriptive analysis of the 20-item scale revealed that the overall level of English-speaking anxiety among Year 6 Tamil school students was high (M = 4.031, SD = .226). This finding resonates with recent studies indicating that Malaysian learners often report heightened anxiety in second language contexts (Kassim & Maniam, 2024; Kho et al., 2025).

The highest mean was recorded for the item “I get anxious when the teacher asks me to speak English” (M = 4.683, SD = .767), highlighting the role of teacher-directed speaking tasks as a primary source of anxiety. Similar results have been observed in contexts where fear of negative evaluation increases apprehension (Rashid & Yunus, 2022). Conversely, the lowest mean was noted for “I feel confident when speaking English in front of others” (M = 1.617, SD = .891), reflecting a clear deficit in self-confidence.

Overall, the results demonstrate a strong link between low self-confidence and high speaking anxiety, affirming earlier findings that affective barriers significantly constrain willingness to communicate (An et al., 2022). These outcomes underscore the urgent need for targeted interventions to reduce classroom anxiety and promote confidence in English communication among Tamil vernacular school students.

Figure 1 clearly shows the mean scores across the 20 items in the survey. All items except for item 3 have shown almost similar levels of mean scores. Item 3, in contrast, has scored a significantly lower level of mean score.

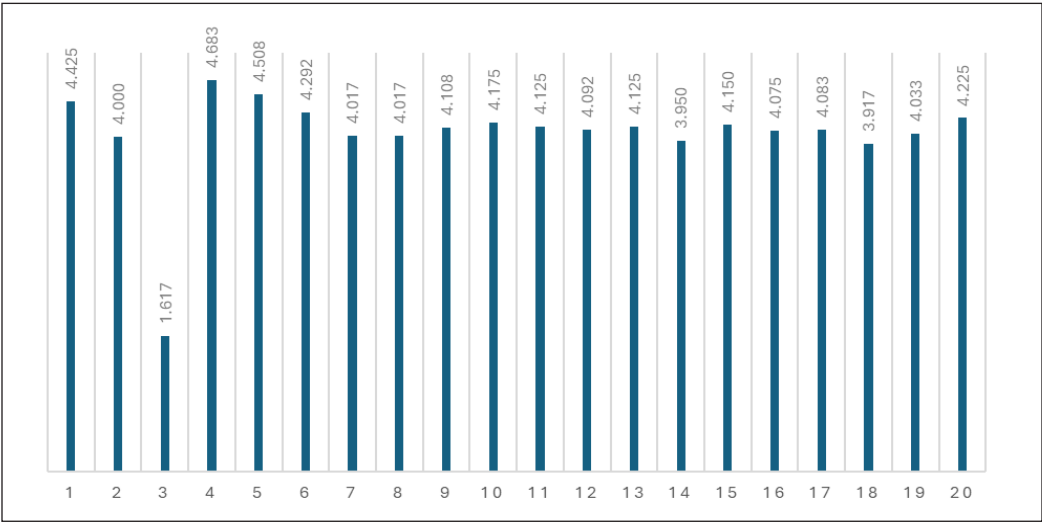


Figure 1. Anxiety scale mean score

DISCUSSION

Levels of Anxiety among Tamil Primary Students

Based on the findings in figure 1, several important elements must be discussed. The descriptive analysis revealed a high overall level of English-speaking anxiety ($M = 4.031$, $SD = .226$) among the 120 Year 6 students surveyed. The strongest indicator of anxiety emerged when students were directly asked by the teacher to speak English ($M = 4.683$, $SD = .767$), suggesting that classroom demands are perceived as highly threatening. These findings are consistent with earlier studies (An et al., 2022; Dana & Aminatun, 2022), which reported that speaking tasks under teacher supervision intensify students' nervousness and create a heightened state of anxiety. In this context, Spielberger's (1966) concept of state anxiety provides a useful framework: the sudden requirement to

speak triggers immediate emotional distress that is difficult for students to regulate. This result highlights the urgent need for less intimidating speaking activities in the classroom.

Self-confidence and Its Relationship with Anxiety

The lowest mean score was observed for the item, *"I feel confident when speaking English in front of others"* ($M = 1.617$, $SD = .891$). This inverse relationship between confidence and anxiety reflects a significant challenge for Tamil primary school students. Whereas Ariyani and Yosintha (2022) suggested only a weak link between self-confidence and speaking anxiety, the present study indicates a stronger correlation, aligning with Maftuna (2020), who found that anxiety directly undermines students' self-assurance in oral performance. In practical terms, when pupils

lack confidence, their anxiety is amplified, leading to avoidance of English-speaking tasks. This finding not only confirms the role of affective factors in second language learning but also calls for interventions that explicitly target confidence-building as part of language pedagogy.

Classroom Practices and Cultural Influences

The data further revealed that 45.8% of respondents strongly agreed with the statement that they fear being laughed at by classmates when speaking English. This echoes Idrus (2021), who highlighted the cultural dimension of anxiety, where fear of embarrassment and peer judgment discourages participation. Such classroom practices—whether teacher-centred questioning or peer ridicule can inadvertently reinforce avoidance behaviours. From Spielberger's perspective, these repeated threatening experiences may transform situational state anxiety into more stable trait anxiety, shaping students' long-term attitudes toward English speaking.

The findings in this study suggest that more attention should be given to restructuring classroom practices. The evidence from the study shows that some classroom practices such as incorporating songs, games and storytelling can reduce anxiety as these are non-threatening strategies where mistakes in English-speaking is perceived as a common thing and part of the overall learning process. Students must be reassured even in Tamil vernacular schools, that speaking in

English is not something to be feared and if they make mistakes, it is only part of the overall learning process (Fattahi Marnani & Cuocci, 2022).

Future Work

In the future, there are certain things researchers can do to gain a more comprehensive understanding of the phenomenon. Firstly, a mixed-method approach should be used to gain deeper understanding. Interviews and focus groups can provide useful information about the reality in schools. It can guide the researcher in understanding the reality students face in schools.

On top of that, research in the future must integrate classroom observations which can help uncover a major part of the practices used inside the classroom. Classroom observations provide a major advantage to researchers especially in terms of obtaining evidence related to students' change of behaviours, subtle cues and signs of anxiety when they have to speak in English.

A combination of quantitative and qualitative research designs will result in richer data which could be used to understand the phenomenon better. The results would also encourage policymakers and teachers to change practices and introduce strategies that would eventually reduce English-speaking anxiety.

Limitations

Notably, the study is limited to participants from only two schools. This limits

generalizability of the data obtained from the study. Plus, the study also lacks data triangulation because it does not incorporate multiple data collection methods and analyses.

CONCLUSION

Ultimately, the study showed that there is a high level of English-speaking anxiety among the students at the vernacular Tamil schools involved in this study. The results reported further highlight the adverse effects of English-speaking anxiety towards the students' self-confidence when required to speak in English. It also provides ample evidence to further explore fear of mistakes and peer judgment which also cause anxiety among the students. In summary, the results of the study show the urgency to further study global trends in language learning within unique sociocultural contexts such as the Malaysian Tamil school context.

The theoretical foundation of the current study aids in further understanding the concept of anxiety and how it exists in the context of Tamil school students' lack of proficiency in English speaking. Spielberger's State-Trait Anxiety theory provided indispensable data and information on anxiety especially in terms of categorising anxiety into state and trait anxiety categories. The distinction is vital in understanding the responses of different students. The theoretical basis further confirms the patterns of behaviour observed in the study and also consolidates its contribution to the entire field of language anxiety research.

Subsequently, this study echoes the urgency in transforming the classroom practices for long term changes. The findings of the study support change in teachers' behaviour and attitude especially when teaching English. Teachers must be ready to embrace changes and prepare to employ simple strategies like integrating songs, games and role-playing activities in their classrooms. Additionally, the study also invokes the need for parents and communities to work together with teachers to create opportunities for meaningful use of English outside the classroom.

Retrospectively, the study has provoked various parties to be more responsible in ensuring that students have better opportunities to enhance their English-speaking skills. The data from the study does not only prove the existence of anxiety among Tamil school pupils but it also further establishes the existence of some classroom practices that must be changed. However, more research involving larger populations and incorporating various types of methodology must be conducted to fully uncover the issues faced by the students when speaking in English. The results would be highly beneficial towards teachers, policymakers and stakeholders in the future.

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Email: executive_editor.pertanika@upm.edu.my
Tel. No.: +603- 9769 1622

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