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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 in issues pertaining to social and behavioural sciences as well as the humanities.

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

The journal is available world-wide.

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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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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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Peer reviewers are experts chosen by journal editors to provide written assessment of the **strengths** and **weaknesses** of 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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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 for attending 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 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.
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Foreword

Welcome to the first issue of 2024 for the *Pertanika Journal of Social Sciences and Humanities (PJSSH)*!

PJSSH is an open-access journal for studies in 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 15 articles; two case studies and the rest are regular articles. The authors of these articles come from different countries namely Indonesia, Malaysia, Russia and Thailand.

An article entitled “Adapting to Change: Facing the Challenges in Developing ESL Students’ Communicative Competence Online” explores the challenges ESL instructors encounter in developing students’ communicative competence during the sudden transition to remote learning amid the pandemic. Findings indicate that ESL instructors faced challenges such as lack of student engagement, difficulties adapting a physically designed course to an online format, and limitations in high-speed internet access. Further details of the study can be found on page 1.

Shahazwan and colleagues investigate the conceptions of assessment held by secondary school Physical and Health Education (PHE) teachers in Selangor, Malaysia. The focus is on four variables: improvement, school accountability, student accountability, and irrelevance. The results indicate that among the examined variables, improvement received the highest level of agreement from the 268 participating PHE teachers, while irrelevance had the lowest. The study’s findings present valuable insights for education stakeholders, highlighting the necessity for more research that might involve qualitative methods. The detailed information of this article is presented on page 189.

A regular article titled “Museum Management Factors Affecting Generation Y Visitors’ Decision-Making to Visit Museums” sought to investigate the factors affecting Generation Y visitors’ decision-making to visit museums using binary logistic regression data analysis. The results reveal four factors affecting the purpose of the research: facilities, interpretation, technology/innovation, and activities. The detailed information of this article is presented on page 255.

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, Editor-in-Chief 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.

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Adapting to Change: Facing the Challenges in Developing ESL Students' Communicative Competence Online

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ABSTRACT

Developing students' communicative competence during the pandemic is not an easy task, especially with the abrupt shift to remote learning. This study is intended to explore the challenges faced by English as a Second Language (ESL) instructors in developing students' communicative competence in an online classroom. This study involves three ESL instructors in a university, as well as three students from each instructor's class. The chosen data collection methods were in-depth interviews and stimulated recall for the ESL instructors and focus group discussions for the students. The findings show that among the challenges faced by ESL instructors include the lack of student engagement and socialisation, the fact that the course was designed for physical classes, and the lack of access to high-speed internet. The students also shared their experiences when faced with these issues. It is hoped that ESL teachers, course developers and administrators can understand the issues faced by ESL instructors with remote learning to develop students' communicative competence.

Keywords: Communicative competence, English as a second language, online learning, second language acquisition

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INTRODUCTION

Developing communication competence is really important, especially for those learning a language as a second or a foreign language. The concept of communicative competence was developed by Hymes (1972), who defines it as the language learners' ability to use the language appropriately in different communicative situations or contexts. According to Canale and Swain (1980),

and later extended by Canale (1983), the dimensions of communicative competence include grammatical competence, discourse competence, sociolinguistic competence and strategic competence. Language learners with grammatical competence have knowledge of the form and structure of the language, while those with sociolinguistic, discourse and strategic competence have knowledge and ability to use the language appropriately in a variety of contexts.

Communicative competence emphasises appropriateness, not just accuracy, in communicating with others (Savignon, 2018). Communicative competence allows language learners to communicate effectively and accurately without causing misunderstandings and miscommunications (Hymes, 1972). However, for various reasons, second language learners sometimes do not get as many opportunities as native speakers to learn and practice the skills for developing their communicative competence. Being able to use the target language appropriately is especially difficult for ESL and English as a Foreign Language (EFL) learners because they are not commonly exposed to the language and how it is being used by communicatively competent speakers (Liu, 2008). Therefore, the ESL classroom is their main avenue for gaining knowledge and abilities, especially for the development of this competence, which requires them to be exposed to a variety of contexts.

However, with the recent COVID-19 pandemic, traditional face-to-face classes were brought to a halt, somewhat forcing

educators into something that had been significantly applied with distance learning or online classes (Bird et al., 2022). The teaching and learning of English in an online class come with its challenges, which are more in developing learners' speaking skills (Ying et al., 2021), specifically the teaching of skills related to the development of students' communicative competence. Due to the pandemic, the ESL classroom exists virtually, with instructors using computer-mediated communication (CMC), such as video conferencing software and social networking sites, to conduct class and communicate with their students. In terms of the development of communicative competence, this paper discusses the challenges ESL instructors and students face in developing communicative competence in an online classroom.

Developing ESL Students' Communicative Competence in Online Classes

Though using the internet, software and applications, or computer-assisted language learning (CALL) is not unheard of in tertiary level institutions, especially having synchronous classes via video conferencing is not so common for most institutions until recent years with the COVID-19 pandemic. With the abrupt shift from traditional physical classes to online learning, instructors have had to familiarise themselves with synchronous class sessions and personalise learning more towards individual students' needs (Bird et al., 2022). The need for personalised connections with students is especially highlighted in research

since it was found that remote learning has affected the teacher-student relationship significantly, as casual interaction between the instructor and the students has been reduced (Atmojo & Nugroho, 2020).

The connection between students and their instructor can also influence their learning, specifically as it may affect student engagement. Lukas and Md Yunus (2021) highlighted that though students seemed initially interested in online learning, ESL instructors found it difficult to keep students engaged in the lesson or motivated to learn. It is only further inflated due to the issues with internet access that students face when attempting to attend online classes. Access to strong internet connections and good devices is not as common among poor families, demotivating students from participating in class and submitting tasks. Hence, it is vital that instructors are aware of their students' needs and current situation, especially when it can impact their language acquisition. Students need to be able to communicate in the language classroom to develop their communicative competence through practice.

Anugrah (2021) conducted a study involving three English language instructors, exploring the challenges faced by these instructors, along with the way that they overcame these challenges. One of the most prominent challenges that the instructors faced was the lack of classroom interaction. The instructors reported feeling distant from the learners because they sometimes could not see the students' gestures and body language due to the remote learning.

They felt this could be the reason for students' lack of engagement. To overcome this issue, the instructors used different online platforms and teaching strategies to engage their students in the lesson. The instructors also deduced that the lack of engagement could be due to the unstable internet connection, but this is an issue that the instructors themselves could not directly solve, so they could only attempt to use different online platforms to accommodate their students' situation.

In their study involving 20 Indonesian English language instructors, Nartiningrum and Nugroho (2021) found that instructors in Indonesia have had to be creative with their use of technology in navigating remote learning due to the sudden COVID-19 pandemic. Lesson plans designed for traditional physical classrooms must be adapted and improvised for online classes. Besides that, it was revealed that the lack of a strong internet connection significantly impacted students' learning, specifically due to the inequality that students might face due to geographical and economic factors. Some English language instructors in this study had to resort to personally visiting students at their homes to provide the notes and tasks to them. Therefore, the researchers concluded that it is vital for a stable internet connection to be made available for students in the whole country to ensure that all students receive the same opportunities to learn.

In another study set in Indonesia, Syafrayani et al. (2022) focused on 45 college students, investigating the challenges

they faced and the benefits they gained from learning the English language through online classes. Among the issues they raised were the distractions at home, the information overload from instructors, technical and connectivity issues, as well as limited interaction among classmates and with the instructor. At the same time, the students also cited several benefits they found from remote learning, such as the convenience of having classes at home, which reduced the need for transport or much preparation, and their improved motivation to learn and use the English language due to the virtual environment. In light of the advantages that can be gained from online learning, the researchers recommend that instructors use a variety of online learning platforms to engage students and identify which platform would be most appropriate for their students' internet connection.

Similar to the previous study, Tackie (2022) also found some benefits from online learning. The instructors revealed that online learning had improved how some students communicate in the classroom. Some students who were often disruptive in the traditional physical classroom were less disruptive and would be more willing to communicate with their instructors. Even students who commonly avoided participating in class activities were more involved in lessons. It could be due to the instructors' efforts in using different platforms to communicate with their students, personalised to the different needs of the students. It is important that instructors understand their role as surrounding

interlocutors in a student's life. Though some might view casual conversations as inappropriate in the language classroom, other instructors feel that communicating casually with students can improve their communicative abilities because they view the classroom as a community, and learning can happen through socialisation.

There are many challenges faced by ESL instructors in developing students' communicative competencies, ranging from technical and logistic disruptions to engagement and interactivity issues. Literature has shown that it is vital to identify the challenges to facilitate ESL instructors in managing them. Hence, this study intends to further explore the challenges faced in developing ESL students' communicative competence, specifically in Malaysian English language classrooms.

METHOD

This study has chosen a qualitative approach, with ESL instructors as the main participants, to explore their experiences developing students' communicative competence in the language classroom. Their students were also interviewed to support and further explain the instances and situations described by the ESL instructors to triangulate this data. To ensure that the development of communicative competence would occur in the classroom, the researchers had chosen ESL instructors who were qualified and capable, as verified by the gatekeepers, and those teaching the course that included aspects of communicative competence in the course content.

For this case study, three ESL instructors were chosen for an in-depth interview, and three stimulated recalls were used to gain an understanding of the challenges they faced in developing students' communicative competence online. Stimulated recalls were chosen for this study because they provide the instructors with an opportunity to watch the recording of what they had done in the class so that they can reflect on the specific choices that they had made (Zainil, 2018) in their teaching instructions. As for the students, three students each instructor taught were chosen for focus group discussions. Three focus group discussions were conducted, one group for the students of each instructor. During the focus group discussion, the students were asked about their experience developing their communicative competence in online classes.

In order to conduct the stimulated recall, the researchers watched recordings of the ESL instructors' classes and adapted the existing interview protocol to the occurrences in the classroom, specifically related to the development of communicative competence. The ESL instructors' responses were transcribed and analysed through thematic analysis and constant comparison. Codes found from the data were categorised, and themes were identified. Next, the students were interviewed, and the data from their interviews were triangulated with the data from the ESL instructors' interviews. Categories and themes were adjusted and updated with constant comparison to ensure that the data from the ESL instructors'

interviews supported the findings from the students' responses. The findings were then discussed in relation to past studies in the area.

FINDINGS AND DISCUSSION

Based on the data analysis, it was found that among the challenges faced by ESL instructors in developing students' communicative competence in the language classroom are engaging students in the language classroom, lack of socialisation among students, difficulty adapting to abrupt online learning, and lack of access to high-speed internet.

Lack of Engagement in the ESL Classroom

The ESL instructors involved in this study found students to be less engaged in the language classroom when they had online classes as opposed to traditional face-to-face classes. With remote learning, students are in their own homes, placing them at a distance from their instructors. Due to the environment at home and the online learning environment, which allows students to switch off their cameras and possibly engage in other activities, students might not participate in the language classroom as much. For example, Instructor 3 mentions that students can switch off their cameras whenever they like, and instructors would not even realise whether the students are paying attention to the lesson. Though Instructor 3 admits that having students who are not engaged in the lesson is not uncommon, remote learning seems to

cause a lack of engagement in the language classroom.

“...online classes are actually very challenging. I like to call their names so that uh... just to make sure that they are there, during the class. You know... they can just turn off the camera and sign the attendance, but they are not actually in front of the laptop.” (Instructor 3, stimulated recall 1)

Similarly, ESL instructors in the study by Lukas and Md Yunus (2021) found that students are only interested in the initial stages and slowly lose the motivation to participate in online classes. This lack of engagement could be because the students were not physically in front of the instructor; rather, they could just switch off the camera and go elsewhere, just as Instructor 3 suggested. Encouraging participation in the second language classroom is already a challenging task, with students' language learning anxiety and low self-esteem hindering them from communicating in the actual classroom, and this is further heightened due to the class being conducted online. For example, Instructor 2 mentioned that their students are often unwilling to participate in the ESL classroom, and only the same students will respond. The instructor deduced that the lack of responses could be because students are unable to discuss their responses with their classmates, unlike in the physical classroom.

“And then sometimes you ask them,
“Okay, I will give you five minutes

and then... after this, you can share your answer.” Sometimes you'd only get certain feedback from the same students... or all the time from the same students. But the rest just don't want to contribute.” (Instructor 2, in-depth interview)

Anugrah (2021) also discussed the need for face-to-face interaction with students to effectively develop their communicative competence. English language instructors in the study expressed their issues with the fact that they could not gauge student engagement because they could not see students' facial expressions and body language as they did not switch on their cameras. ESL instructors can encourage students to keep their cameras on, but it is not something they can enforce in the language classroom, especially since students might experience unstable internet connections.

Through the focus group discussion with the students, they also admitted that they were less participative in the language classroom in remote learning as compared to the traditional physical classes. Students B, E, F, and I mentioned that they felt uncomfortable communicating during the online classes due to background noises, seeing as they were at home and surrounded by other family members. Student G was on campus for the classes, but he also expressed discomfort because he did not feel comfortable participating in the English language classroom, knowing that his/her roommates could hear him. These situations

cause ESL students to avoid communicating in the language classroom.

In contrast, Tackie (2022) found English language instructors saying that students who were normally disruptive in their classrooms were less disruptive and more open to discussing their current situation with the instructor. It could be because the instructors were more flexible with the students and allowed students to contact them outside of class to communicate with them on personal matters. The students felt more comfortable expressing themselves during remote learning as compared to the traditional classroom, possibly due to the accessibility provided through the different platforms that the instructor uses to communicate with the students.

Participation in second language classrooms is vital, seeing as students do not get as many opportunities to use the language outside of the language classroom. Being able to practice using the language and being exposed to the language is especially important in developing students' spoken communication (Anugrah, 2021). As seen in the current and previous studies, the online classroom may pose some issues for students practising the target language. ESL instructors need to play their role in providing students with opportunities to practice the language and a comfortable and positive environment for students to do so. The ESL instructors in this study also highlight the need for instructors to be more open and approachable with students so that they feel comfortable communicating in class, as well as more innovative with the

use of different platforms, such as Padlet and Quizizz, which allow students to participate and contribute to the lesson other than through verbal responses.

Lack of Socialisation Among Students

Some instructors feel that online learning could cause a lack of socialisation among students. Socialisation here refers to the experience that students would normally get in physical classrooms, where they can talk to each other about non-academic topics before, during or after the class. With online learning, students lose this experience of physically meeting their classmates and the instructor before and after classes, which the ESL instructors feel affects their motivation and interest to participate in the classroom.

Instructor 2 feels that online classes can sometimes take away from the personal aspect of physical language classrooms, where instructors can talk to students individually to discuss any issues or constraints they might be facing at the time. Remote learning can be very isolating at times, especially with students far from their classmates experiencing similar issues. These issues can result in students being unfocused in class and not learning much despite attending every online class.

“I need to mention every time, “If you have any problem, do let me know, WhatsApp me personally.” Because that’s the only way that I can get to know what happened to them. So, I told them I would not know what are you experiencing behind the camera, okay.

You have to let me know. You need to keep the communication open, so that's when I detect students, when they have problems, they would not be able to understand... they are committed to the class, attend every time but they don't really understand the topic." (Instructor 2, stimulated recall 1)

As for Instructor 2, her method of handling this issue would be to encourage students to contact her via WhatsApp if they have any issues they would like to discuss. She also mentioned that she would sometimes just switch off her camera after class time to allow students to talk among themselves. Instructor 2 feels that students also need to be given the opportunity to communicate with each other about topics unrelated to class, and remote learning has taken away an avenue of that happening with students being unable to meet physically. In relation to this, Atmojo and Nugroho (2020) also discuss a similar issue with online learning where students feel disconnected from the English language instructor due to remote learning. It especially affects the interactions between the instructor and the students, which supposedly come more naturally in a physical classroom setting.

The researchers feel that the lack of physical interaction can affect the language learning process, especially in developing communication skills. Tackie (2022) views the class as a community for the students to socialise among themselves and with the instructor, and this is disrupted by remote learning, where students are unable to physically gather with their classmates and

instructor. Instructors need to be more aware and sensitive to students' well-being and initiate more individualised sessions with students who seem to be facing academic and non-academic related issues.

Instructor 3 also feels that remote learning takes away certain important elements of teaching and learning, especially since students can switch off their cameras during the lesson. ESL instructors need to make connections with students and strengthen the bond between them and their students so that the teaching and learning process can be conducted effectively. When lessons are conducted online, students might not have their cameras on, so instructors are unable to gauge students' engagement as compared to physical classes. Hence, Instructor 3 tries to overcome this by encouraging students to switch on their cameras and discuss any topics unrelated to the course at the beginning of the lesson.

"We are not able to look at their, their facial expressions, their movements and all that because I think being teachers, you need to be more alert because when you see the students, their movement, their facial expressions and all that, you'll be able to tell whether they are with you or they are not. So, that is why in every class, I teach, I would make sure that the first 10-15 minutes, I would just talk with them casually. Have a small talk with them, asking them about things other than the course that I teach them" (Instructor 3, stimulated recall 2)

Besides engaging students, this activity at the beginning of the lesson allows ESL instructors to strengthen their bond with the students. It is important because not only do the students get to socialise, but they also get to improve their relationship with the instructor and their classmates and their communicative abilities through casual discourse. Bird et al. (2022) also highlight the importance of instructors managing the transition from physical to online classes by communicating more with their students during synchronous classes or with individual students. Remote learning reduces the opportunities for students and instructors to communicate casually, but ESL instructors can play their role by creating avenues for students to interact. It is especially vital in a second language classroom that focuses on developing students' abilities to communicate appropriately in a variety of contexts. Getting students to participate in class discussions or presentations in an academic context would be difficult if they do not feel comfortable practising the English language, even in casual situations.

Based on the focus group discussion with the students, it was revealed that Students G, H, and I felt that the ESL instructor made them feel relaxed in the classroom. The students feel comfortable communicating with the instructor because they are allowed to also talk casually about topics unrelated to the course. It strengthens the bond between the instructor and the students, especially because they feel that the instructor is caring and nurturing, making

them feel comfortable in the language classroom. In the study by Tackie (2022), the instructors are found to pay special attention to students' mental well-being during the pandemic, showing concern for them so that they would feel less isolated. However, the researchers mentioned that there is no evidence of whether this affected students' learning and development of communication skills.

Difficulty Adapting to Abrupt Online Learning

The course involved in this study was developed and planned for face-to-face classes and not online classes. The pandemic hit the world unexpectedly, and it also lasted for a longer time than expected. Hence, everyone was unprepared to be affected this badly for an extended period. All three ESL instructors expressed their preference for physical classes as opposed to remote learning. They felt that online learning has especially affected language learning, specifically the development of students' spoken communication. Instructor 1 mentioned that he would sometimes ask students to give impromptu speeches in front of the classroom to prepare them for the presentation they would have to give at the end of the semester. However, this activity has lost part of its impact on the online learning situation, where students might not have the same experience when speaking through a video conferencing software as opposed to standing in front of a class full of students.

“...that is one of the methods that I usually do during face-to-face classes. it would be, I would say, it would be more fun, more interactive, hands-on approach ... it would be fun rather than.... I mean even in the assessment, when you sit in front of the computer, it’s different when they present in front of people.” (Instructor 1, stimulated recall 3)

Due to the sudden implementation of online learning, many English language instructors have become uncertain about how best to approach their students, which stems from the lack of experience in conducting classes fully online (Atmojo & Nugroho, 2020). Though online learning has been introduced, and some instructors have dabbled with certain online platforms and websites in their lessons, not many ESL instructors have had the opportunity to completely immerse themselves in an online teaching and learning experience. Instructors need to be ready in terms of technical know-how and preparing the lesson to suit online learning needs. It was revealed that instructors spent more time planning lessons after the implementation of online learning as compared to prior to the pandemic, i.e., from 18% to 33% of their work time (Jones et al., 2022).

The ESL instructors found that they needed to adjust the materials provided by the course coordinators to suit the online learning experience. For instance, Instructor 2 discussed the issue that some instructors faced with the lack of activities that were

provided for students. Instructor 2 reflected that it might not be an issue with a lack of activities but that students in physical classes usually take more time to respond to in-class activities because they would perhaps take more time to discuss with their friends and volunteer to contribute their responses. The course materials were developed for physical classes, and in this situation, Instructor 2 feels that ESL instructors need to be flexible and innovative in using different online platforms to support the provided activities. Not only would it allow learners to take their time responding during the activities, but it would also allow instructors to gauge individual students’ understanding, especially since the whole class can provide their responses without disrupting the class.

“But if you ask them, to write their answers... you know like using Padlet, or if you want to use Jamboard, or you want to use other approach then maybe it can... I would say take more time ... also to ensure that it’s going to be interactive and engaging the students, you want to see whether they have understood the task or not.” (Instructor 2, stimulated recall 2)

Instructor 3 found that ESL instructors do not necessarily need to introduce new online platforms to their students when trying to accommodate the needs of the lesson, but they can fully utilise the video conferencing software they are using for synchronous online classes. Besides using

the chat function so that students can share their ideas and responses in written form, Instructor 3 used the Zoom Breakout Rooms available in the Zoom software to allow students to discuss the topic in smaller groups. This function on Zoom allows the students to discuss in small groups, which improves their engagement and motivation to communicate in English, but it also allows instructors to join each small group and see how the students are doing.

“Because I’m trying to compare to physical classroom. In the previous semester, whenever I taught this course, I would divide them into small groups and then I would walk around the class. I would go to each group to listen to their discussion... so this breakout room actually applies the same method or the same technique. So you can simply join every group and listen to their discussion. You can talk to them and they would ask you questions. They feel free. Yeah, I think it’s a very useful function.” (Instructor 3, stimulated recall 2)

In relation to this issue, Lukas and Md Yunus (2021) also discuss that ESL instructors need to be prepared for online learning, especially in terms of technological readiness, to provide students with sufficient opportunities for communicating and learning in the language classroom most effectively. Seeing as courses or lessons might not be planned specifically for online classes, and course developers might not

have anticipated such a situation as the pandemic, ESL instructors need to step up and play their role in the development of students’ communicative abilities. Similarly, this is a conundrum faced by English language instructors in Indonesia, where online learning is uncommon, and instructors need to be creative in their lessons to adapt to remote learning conditions (Nartiningrum & Nugroho, 2021). Thus, instructors need to adapt quickly to any situation, such as the pandemic, which would significantly impact the teaching and learning process, as well as be willing to try different approaches and methods with students to overcome any issues that might arise. Only when ESL instructors are able to do so can they appropriately develop students’ communicative abilities and lead them towards communicative competence.

Lack of Access to High-speed Internet

Prior to the pandemic, it was uncommon for students to need to be involved in synchronous online learning, even in higher education institutions, at least in Malaysia, where the study was conducted. Hence, issues with internet connection or other technical matters were not often raised. Synchronous online learning requires students and instructors to use video conferencing software with a strong internet connection. Anugrah (2021) reported that the lack of a strong internet connection disrupts the learning process, especially because not only do the instructors need access to high-speed internet, but all the students need to have it for the lesson to be conducted effectively.

Instructor 1 highlights that students who do not have access to high-speed internet might not be able to perform well in their presentation assessment. The instructors have to weigh whether to have the presentations during the synchronous online classes or ask the students to record and play the recordings in class. Though the use of recordings might be seen as the better option as students' focus and performance might be affected by the issues with their internet connection, it is also not ideal, seeing as the students would not have an audience to interact with and instructors would not be able to assess how they navigate the audience.

“Another problem is the internet connection, yeah, where it may not be good so that's why I'm contemplating whether I want to have it live or recorded because if the line is not good, people cannot hear them or they know that their line is not good, it can disrupt their flow, style and even the time management.” (Instructor 1, stimulated recall 2)

Instructor 2 also addressed the issue with their students, saying that students need to inform the instructor if they have internet connection issues. In order to provide students with the opportunity to learn despite their unstable internet, Instructor 2 offers to provide students with a recording of the lesson. Though synchronous sessions might be the best for a communicative class, Instructor 2 feels it is better to provide a recording rather than leave the student behind in the lesson.

“I would just tell them if you had connection problem, you just WhatsApp me. You need to tell me because I know... I notice they would come... join and leave, join and leave, you know? So, each time I would have to accept them in the Zoom, but it would be good if you can let me know so that at least, if you miss the lesson, you can ask your friends or perhaps I can provide you with recording.” (Instructor 2, stimulated recall 1)

Based on the focus group discussion, some students admitted that they faced issues participating in the language classroom due to the lack of strong internet connection they experienced at home. When asked about anything that made them feel uncomfortable communicating in the ESL classroom, Student E revealed that they were affected by the background noise in their house as well as the unstable internet connection.

“Sometimes, as I'm in my house... so, the noise, the background noise or my network connection. Most of the time, it would get unstable.” (Student E, focus group discussion)

Similarly, Syafrayani, Ginting, Hasnah and Saragih (2022) found that students would often face problems with the software used because of the poor connection, and then they would have to repeat the process of joining the class because they were logged out due to their lack of access to high-speed internet. It would cause more

issues for the students because it would especially affect students using their mobile internet quota to connect to the internet. The inequality in internet access is definitely an important issue to be discussed, not just in language learning but in general for the education of youths all over the world. Lukas and Md Yunus (2021) reported that inaccessibility to strong internet connection caused students to be left behind in lessons,

which is common in low-income families. Though ESL instructors may not be able to have such a significant impact in providing better internet connection for all students, they might be able to provide students with different avenues for learning, such as through asynchronous online platforms. Table 1 illustrates the themes and categories that were derived from the data in this study.

Table 1
Themes and categories derived from the data

Themes	Categories
Lack of engagement in the ESL classroom	<ul style="list-style-type: none"> • Students' discomfort in using English due to the physical environment (home & hostel) • Distractions from the physical environment (home & hostel) • Cameras switched off, and microphones muted • Physically separated from classmates and lack opportunities to discuss before responding.
Lack of socialisation among students	<ul style="list-style-type: none"> • Lack of socialisation affecting motivation and interest • Rapport and good instructor-student relationships are significant factors in learning • Balancing formal and informal communication in online classrooms to make students feel comfortable • The need for small talk before and after classes is often lost in online classrooms
Difficulty adapting to abrupt online learning	<ul style="list-style-type: none"> • Courses were planned for physical classes, and instructors found it challenging to adapt. • ESL instructors' preference for physical classes affects the teaching and learning • Use of different platforms to create a medium for students to respond and communicate to replicate physical classroom situations
Lack of access to high-speed internet	<ul style="list-style-type: none"> • Managing issues with online presentations • Video conferencing requires a greater bandwidth • Finding alternatives for sharing materials and information

CONCLUSION

The findings have revealed that remote learning has caused ESL instructors to face several challenges in developing students'

communicative competence, such as the lack of student engagement, the lack of socialisation among students, the difficulty of adapting to online classes, and the lack

of internet connection. Developing students' communicative competence can be difficult with remote learning, especially when students are not engaged or motivated to participate in class activities. In relation to the issues with engagement, the ESL instructors also noticed that the relationship they would normally have with students is affected by the lack of socialisation due to remote learning. Besides that, the course they teach was not initially developed for online classes; hence, some of the tasks and materials planned for the class were not applicable. The ESL instructors also found that the lack of a strong internet connection had an impact on students' involvement in class activities.

These challenges have caused challenges in the teaching and learning process, and in some instances, the ESL instructors needed to adapt and improvise their lessons to manage and overcome them. The instructors planned their lessons to cater to their students' needs to ensure the effective development of communicative competence. It is hoped that from these findings, other ESL instructors can gain a better understanding of the issues of teaching a communicative course online. Perhaps the findings of the study can also inspire others in terms of actions that can be taken to improve their students' online learning experience. The findings of the study reveal that ESL instructors are adaptable and driven in creating a conducive learning environment for their students. Based on the findings, other ESL instructors could see the issues they have faced in others'

eyes and the possible solutions to overcome any issues they faced. Being isolated due to the pandemic affected not only students' learning but also ESL instructors' teaching experience. With this study, it is hoped that other ESL instructors would gain some insight and vision in developing students' communicative competence, specifically seeing the impact of the context and environment of the learning, be it online or physical, on students' learning and interaction.

Some issues, such as the lack of access to high-speed internet for many students, especially due to financial and geographical factors, cannot be directly solved by ESL instructors. They can provide different avenues of conveying knowledge to students, but this is definitely an issue that should be given more attention by learning institution administrators. The pandemic caused an abrupt shift in learning from traditional physical classes to online classes, and administrators were unprepared, but this should serve as a learning opportunity for administrators and course developers as well in improving the teaching and learning of communicative competence for any future situations where remote learning might be applied.

Recommendations for Future Research

This particular study focuses on the instructors as the main participants to be investigated, while data from the students play a role in triangulating and supporting the data from the instructors. In the future,

studies could be done on the discourse of students to compare how they communicate in physical and online classes. The data could be supported by data from interviews where the students are asked to discuss and explain any similarities or differences between how they communicate online and physical situations to strengthen the study's findings. Having a deeper understanding of the similarities and differences between how the students communicate and why they occur from the student's point of view would benefit instructors when developing and planning their courses and lessons.

As the instructors in this study have mentioned using certain online platforms, an experimental study could also be conducted to investigate the effectiveness of using certain online platforms for teaching and learning a communicative course. As communicative courses require students to practice the target language significantly, it would be helpful to understand if using specific online platforms would improve students' performance in communicating in English. Other than assessing their performance, the researchers can also do a focus group discussion with some students to understand their experiences using online platforms. The researchers can also interview some students from the control group to discuss their experiences as well.

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The Jewels in English Language Teaching: Attributes of Quality English Language Teachers in Second Language Setting

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ABSTRACT

The growing demand for high-quality English language teachers who can effectively facilitate language learning has prompted the need for research in this area. By utilising a phenomenological approach and in-depth interviews, this study explores the lived experiences of ten experienced English language teachers from the Eastern part of Malaysia and five stakeholders in the English language teaching (ELT) field. The aim is to gain insights into their perceptions of what constitutes a quality English language teacher. The findings highlight that passion for teaching, cognitive abilities, social-emotional competencies, personality traits and a concept of ‘going beyond teaching’ are crucial for quality teachers. This research contributes to a deeper understanding of essential attributes that define a quality English language teacher, enabling teacher training institutions to refocus their curriculum and incorporate courses that prepare teachers holistically and enhance second language teaching and learning, particularly in the social-emotional domain. Several recommendations for including specific components in teacher training programs are also discussed.

Keywords: English language teaching (ELT), phenomenological approach, social-emotional domain, teacher training, quality English language teacher

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INTRODUCTION

The United Nations Educational, Scientific and Cultural Organization (UNESCO) Sustainable Development Goals (SDG) for quality education highlight the importance of ensuring inclusive and equitable education and creating more opportunities for lifelong learning for everyone (UNESCO, 2015). As a developing country, Malaysia strives

to improve its educational standards and prepare its younger generation for the challenging job market demands. One key area of focus is improving students' mastery of the English language at the primary and secondary levels, which is vital for the nation's future workforce. Much research has shown how mastery of the language can result in employment (Adebola et al., 2020; Ahmmed et al., 2020; Hiew et al., 2021; Hsieh, 2021; Jing & Wang, 2022; Singh et al., 2021; Solati et al., 2022; Ting et al., 2017), positive and negative working ability (Mohamed et al., 2020; Romadlon & Arifin, 2021) and improving social mobility (Choi, 2021; Di Paolo & Tansel, 2019; McKee & Paasche-Orlow, 2012; Miranda & Zhu, 2021). The Malaysian Ministry of Education (MoE) is determined to train quality English language teachers who can provide an effective learning environment to achieve this goal (Darling-Hammond & Bransford, 2007; Kepol, 2017; Mohamed, 2015; Omar et al., 2019) which is also in line with UNESCO (2015) SDG aspirations.

In 2013, the MoE established the English Language Standards and Quality Council (ELSQC) 2013 to address the declining English standards by putting more emphasis on developing quality teachers and enhancing Malaysia's global economic reputation (MoE, 2013). Aside from raising the entry bar for teachers to be amongst the top 30% of graduates, the government also strives to upgrade the quality of teachers through school-based training, continuous professional development courses and peer-led culture of excellence. To produce quality

classroom teachers, the MoE attempts to provide courses and training concentrated on new areas based on grade promotion and enhancing English proficiency among teachers. However, challenges in terms of teacher participation, technical facilities, logistics, and time constraints (Aziz & Uri, 2017; Gill, 2013; MoE, 2013; Omar et al., 2019; Sukri & Yunus, 2020) hinder the results of such efforts.

A study by the Malaysian Ministry of Education found that 63% of schools rated themselves as practising good English language teaching compared to just 13% by the school inspectors (MoE, 2013), thus suggesting a disparity of opinions among English as a second language (ESL) teachers and stakeholders' view on teacher's quality and good teaching practices. Furthermore, Kepol (2017) found that the current policies fell short of fully capturing a quality teacher's multifaceted nature and characteristics. According to Goh (2012), there seems to be a significant disparity between quality standards for what a teacher 'can do' and what they 'could do' in the classroom. As a result, the assessment of teacher standards would not accurately reflect the realities of teaching in the classroom because teachers would not have the opportunity to articulate their actions and pedagogical choices.

This study explores experienced ESL teachers' and stakeholders' conceptions of what it means to be a quality English language teacher and how this understanding can influence future teacher training. Although this study is limited

to Malaysia, the findings have broader implications for improving English language teaching worldwide. Understanding a quality teacher's transformation process and attributes can help overcome the 'stuffed' curriculum and create a 'less is more' approach (Cousin, 2006) for teacher education, which is the 'jewels' of teacher training. This knowledge can be beneficial in improving teacher training and continuously improving English language teaching and learning in countries with similar second language (L2) settings. This study intends to answer the following research question:

1. How do experienced ESL teachers and stakeholders view quality English language teachers in an L2 setting?

LITERATURE REVIEW

Effective English Language Teaching

English language teaching (ELT) is a worldwide crucial component of language education. Over the years, language teaching has evolved from focusing on grammar rules and memorisation to a more communicative and student-centred approach. Research on effective English language teaching has gained significant attention recently, with an increasing number of studies focusing on teaching ESL or foreign language (EFL) to improve students' language proficiency and communication skills.

Several factors are necessary to effectively teach English, such as having strong teaching principles, access to adequate resources, and good English proficiency. The role of the teacher in

successful English language teaching cannot be overstated, as they are responsible for creating an environment conducive to learning, helping students grasp concepts, and providing feedback that assists learners in achieving their objectives. Before the 1960s, researchers concentrated on determining which factors impacted a teacher's effectiveness, including personality traits, age, knowledge, and training (Kyriacou, 2009). Goh (2012) outlined that effective teachers demonstrate a) monitoring expectations, b) providing clear objectives and rules, c) encouraging student participation, d) breaking down instructional units into smaller assignments, and e) providing frequent feedback.

In order to motivate children to learn languages and improve their language skills, teachers need to have the necessary qualities and skills. Several studies have investigated the link between effective English teaching and teacher quality (Wang, 2021). The research has shown that the quality of teachers is positively correlated with the degree of students' English proficiency (Goe & Stickler, 2008; Seebruck, 2015; Wang, 2021). The studies found that teachers with solid communication skills, knowledge of the subject matter, and good teaching practices are more effective in encouraging their students to learn a foreign language. With the worldwide demand for English as a second language, teacher quality has become a pressing concern in education. Teacher quality and abilities are crucial to the success of L2 learning, emphasising the importance of addressing this issue.

Teacher Quality

Teacher quality is a multidimensional concept encompassing a range of characteristics, skills, and behavioural patterns that contribute to effective teaching (Hamid et al., 2012). Knowledge of the subject matter, pedagogical abilities, classroom management, communication skills, and student involvement are some of the aspects of teacher quality that are most widely cited (Bradford et al., 2021; Goe & Stickler, 2008; Hamid et al., 2012). These qualities make teachers more likely to create a positive learning environment, engage students, and promote language learning. Research has shown that teacher quality significantly impacts student learning outcomes (Bardach & Klassen, 2020; Darling-Hammond & Bransford, 2007; Goe & Stickler, 2008).

Language education researchers have long been interested in the attributes of effective or high-quality teachers (Hamid et al., 2012; Kepol, 2017; Uygun, 2013). Even though 'effective teaching' and 'quality teachers' are inextricably linked, numerous researchers have concluded that it is highly challenging to accurately define effective teaching and quality teachers due to many factors (Hamid et al., 2012; Kyriacou, 2009; Uygun, 2013). The conventional method of teaching languages was based on a scientifically established notion of instruction, supported by empirical studies that either operationalised learning principles, relied on tried-and-true models of particular teaching techniques, or served as models for effective teaching behaviours

(Freeman & Richards, 1993). Most of the earlier studies used the process-product paradigm, which looked for the essential teaching behaviours that might be connected to particular learning outcomes and proposed that if these teaching behaviours were successfully and effectively implemented on a large scale, student learning would be ensured. However, many researchers argued that focusing on student outcomes ignores and undervalues teachers' distinctive experiences and perspectives. Instead, it creates a decontextualised, abstract body of knowledge that disregards the complexity of interpersonal communication and reduces instruction to a series of quantifiable activities.

A plethora of research has identified the attributes of effective English language teachers. They include empathy, linguistic competency, intercultural competence, content knowledge, and pedagogical knowledge. Content knowledge is necessary for teachers to comprehend the subject matter and create engaging, relevant courses. On the other hand, pedagogical knowledge entails comprehending how students learn and using that information to create efficient teaching methods (Borg, 2015; Ikromova, 2020; Rahman et al., 2020). The capacity to navigate cultural differences and effectively communicate with various student groups is known as intercultural competence. In addition, having linguistic proficiency is essential for communicating with students and demonstrating good language use.

In a recent study, Mohammaditabar et al. (2020) discovered thirteen themes connected

to successful teaching characteristics based on a content analysis of 23 language training textbooks. These traits include instructional expertise, interpersonal skills, critical reasoning, empathy, eloquence, subject matter expertise, excitement, respect, humour, consciousness, fairness, authenticity, and physical characteristics. In Australia, effective classroom management, interactive or effective communication with students, and continual progress concerning knowledge and best practices were all defined in the National Framework for Professional Standards of Teaching in 2003. According to findings from earlier studies on the best teacher performances, good classroom management, commitment, and responsibility are among the best classroom practices for teachers (Brown, 2004). Brown stressed that a teacher’s capacity to respond correctly to the student’s emotional, social, cultural, and cognitive demands is necessary for good classroom management.

Research Paradigm

The present research adopts Van Manen’s (1990, 2007) hermeneutic phenomenology as the research paradigm, focusing on

interpreting the meaning and significance of individuals’ lived experiences of a particular phenomenon. As a research approach, phenomenology explores the lifeworld to comprehensively understand the nature and meaning of everyday experiences. This specific study aims to explore the lived experiences of ESL teachers in their journey of becoming language teachers and identify the attributes they perceive as essential for a high-quality English language teacher. This investigation is prompted by the existing literature gap, which lacks expert teachers’ perspectives in the L2 context, particularly regarding the tacit knowledge in the teaching profession and the social-emotional aspects.

Various concepts, including experience, expertise, knowledge, competence, training, and professional growth, have been linked to various aspects of teacher quality (Kepol, 2017). Hamid et al. (2012) proposed a model of teacher quality in which they claimed that teachers’ cognitive ability and personality influenced their performance in classroom management, commitment and responsibility (Figure 1).

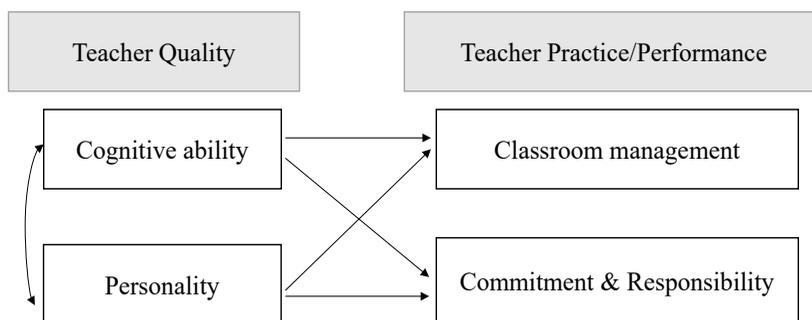


Figure 1. Initial model of teacher quality and performance (Adapted from Hamid et al. 2012)

Hamid et al. (2012) found that a teacher’s cognitive abilities and personality are needed to show performance in classroom management. Nevertheless, they concluded that a teacher’s personality alone cannot predict their teaching commitment and responsibilities. While the researchers agree on the role of teachers’ cognitive abilities and personality in teacher quality, their research seems to lack descriptions of how affective or social-emotional aspects contribute to a teacher’s professional development. More recent studies have urged the importance of looking into social-emotional aspects as they are crucial for positive development and educational and occupational attainment (Organisation for Economic Co-operation and Development [OECD], 2015; Schoon, 2021).

MATERIALS AND METHODS

Participants

On January 5, 2022, we initiated the research application process for schools and

institutions under the Ministry of Education (MoE) using the Educational Research Application System version 2.0 (eRAS 2.0). Approval to conduct the study within local educational institutions was granted by the MoE on January 19, 2022, followed by approval from the Sabah State Education Department (JPNS) on January 27, 2022. Due to the ongoing COVID-19 pandemic at the time, the Sabah State Education Department could not grant permission for in-person data collection. Consequently, online interviews were conducted via a suitable virtual platform. We secured the participation of five secondary schools and two teacher training centres in the study. This research employed purposeful sampling to ensure the relevance and value of the selected sample in addressing our research questions. The sample consisted of two groups: (1) experienced teachers with over ten years of teaching experience and (2) administrators or stakeholders (see Figure 2).

Semi-structured interviews were conducted with ten highly experienced English language teachers (T1 to T10) and five stakeholders holding various roles in the education sector, including department heads, administrative assistants, and teacher trainers (SH1 to SH5). These participants shared their perspectives on quality teaching based on their experiences as language educators. Within our study, experienced teachers were those who had been promoted under the Excellent Teacher Scheme or appointed as subject experts.

Additionally, we employed criterion sampling to select participants meeting

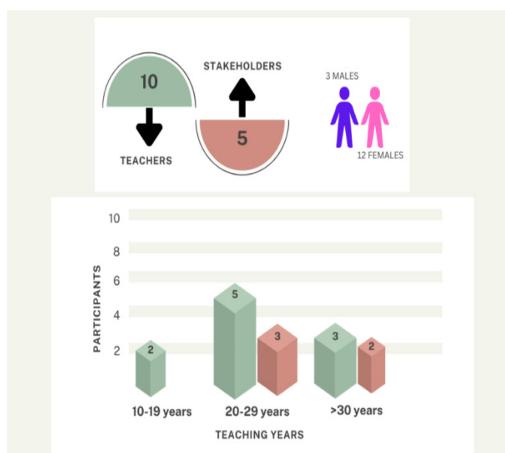


Figure 2. Distribution of working experience of teachers and stakeholders

specific qualifications and characteristics, as detailed in Table 1.

The sample size aligns with recommendations for qualitative research involving expert participants, as suggested by Guest et al. (2006, 2020). They proposed that an appropriate sample size for qualitative research typically ranges from six to 12 participants within a homogenous group, aiming to reach data saturation. Guest et al. (2006, 2020) found that approximately 80% of codes emerged within the first six transcripts, increasing to 92% in the subsequent six transcripts. They observed that new themes rarely surfaced after analysing twelve

interviews and noted consistent code frequency variation by the twelfth interview. By applying these guidelines in our study, data saturation was achieved through iterative data collection and thematic analysis. We recorded and transcribed interviews verbatim, continuously cross-referencing them with earlier interviews. After analysing interviews nine to ten, no novel themes emerged, and the provided information became repetitive, indicating data saturation. This confirmation was substantiated by a peer debriefing session involving two expert reviewers in the field of education who validated the identified themes.

Table 1
Criteria of research participants

Criteria for Experienced Teachers	Criteria for Administrators/ Stakeholders
<ul style="list-style-type: none"> English-option teachers with more than ten years of teaching experience Graduated from the Institute of Teacher Education (IPG) or IPTA Had experiences as either an Excellent Teacher (<i>Guru Cemerlang</i>) or a Subject Expert in English (<i>Ketua Panitia</i>) 	<ul style="list-style-type: none"> Head of Department Administrative assistant Programme Coordinator Teacher trainers

Ethics

The study adhered to standard guidelines for the ethical conduct of research and received approval from the National Defence University of Malaysia (NDUM), the Malaysian Ministry of Education (MoE) and the institutions where the research occurred. Participants were allowed to ask questions and withdraw from the study at any time and were guaranteed anonymity

to ensure their participation would have no impact on their current positions or status.

Data Analysis

Using the framework method by Gale et al. (2013), we used a hybrid approach to analysis, allowing themes to be established deductively from previous literature and inductively from the experiences and perspectives of research participants. At the initial stage, two research team members

responsible for transcribing the data listened to the audio recording and read and edited the interview transcripts several rounds to resolve any inconsistencies. Next, using Atlas.ti version 22 (CAQDAS) to do open and second coding the researchers highlighted the transcripts' segments and labelled them with relevant codes. The codes were then categorised based on similarities, and any redundancy was resolved. The

codes and segments of the transcript were then transferred into a matrix table to establish the themes. The research team had several meetings and peer-debriefing discussions of participants' responses, codes, and irregular cases, facilitating agreement on recurring themes. Figure 3 shows the diagrammatic representation of the data analysis procedure.

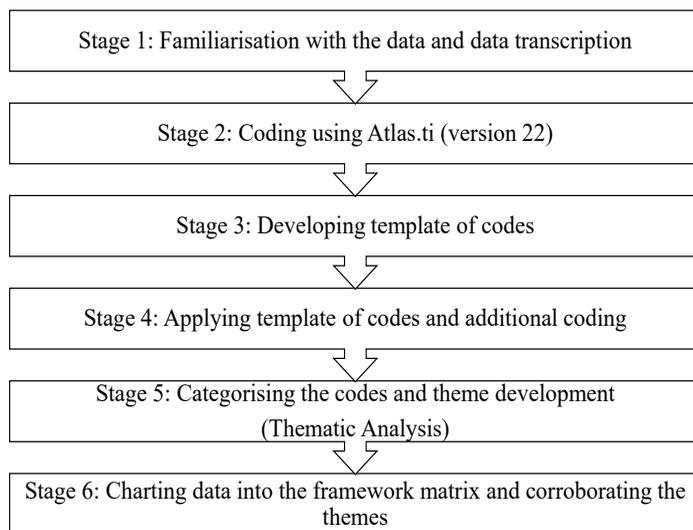


Figure 3. Data analysis procedure (adapted from Braun & Clarke, 2022; Gale et al., 2013; Saldana, 2013)

FINDINGS AND DISCUSSION

Thematic analysis reveals five main themes related to attributes of quality English language teachers: Passion for teaching, cognitive abilities, social-emotional competencies, personality traits and the concept of 'going beyond just teaching'. Figure 4 illustrates the key attributes of a quality English language teacher.

Passion for Teaching

The works of Carbonneau et al. (2008), Fried (2001), and Day (2004) highlight

that passion plays a crucial role in effective teaching by serving as a strong motivation towards a particular activity, driving a love for the subject matter, and drawing teachers towards the challenges and possibilities of their students. When asked about the essential qualities of an excellent English language teacher, most participants (37 quotes) and four out of five stakeholders identified a passion for teaching as the primary criterion for an excellent English language teacher.

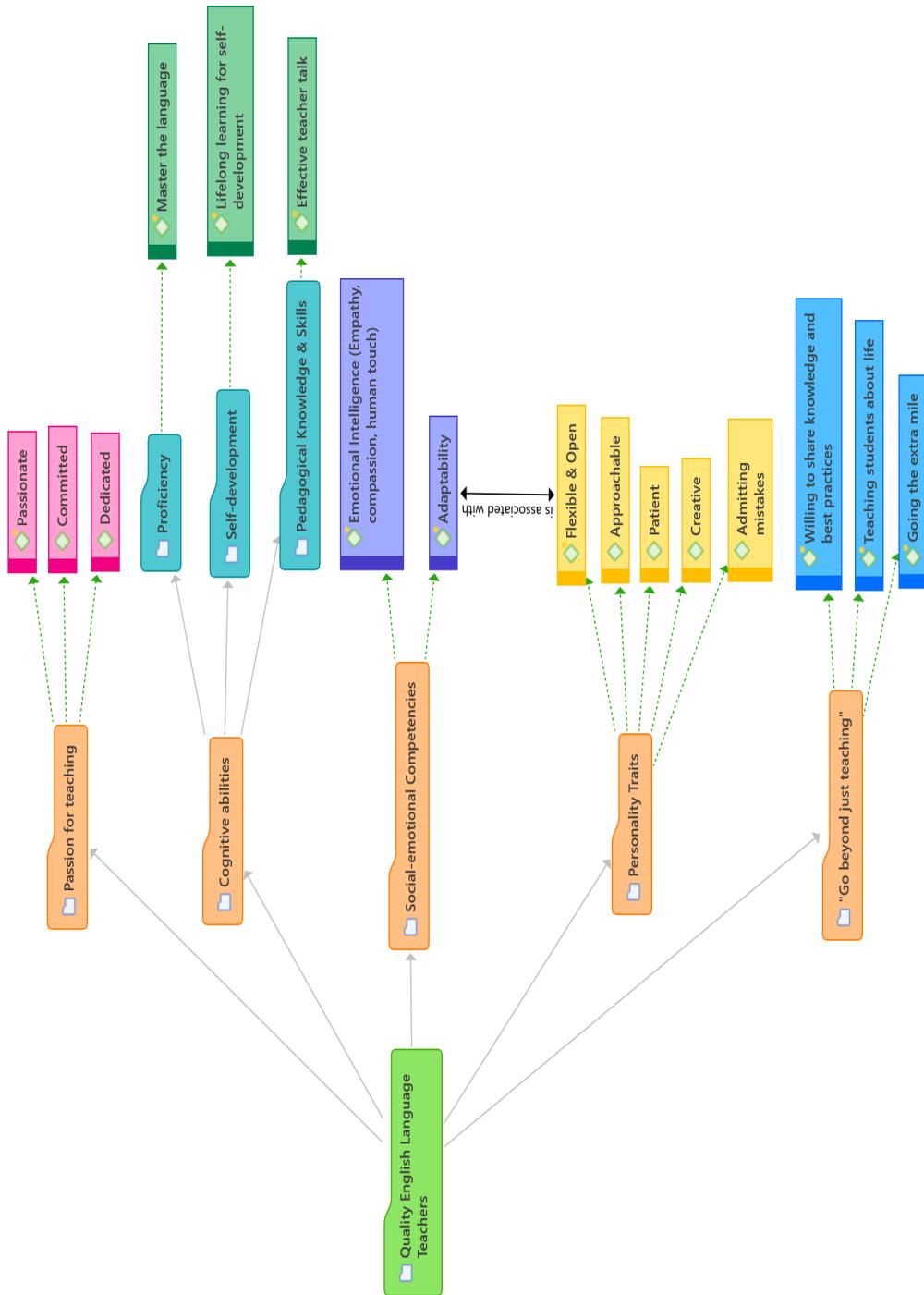


Figure 4. Quality English language teachers

This finding was surprising, considering the huge emphasis on proficiency as the main criterion in recruiting English language teachers. However, in-depth interviews and member-checking procedures in this study revealed that passion for teaching is an essential attribute of a quality English language teacher, without which a language teacher would not be able to perform their tasks well, would not create a positive impact on their students and would deem unfit as a quality teacher. Day (2004) further explained that when students recognise their teacher's fervent dedication to a particular field of study and the preservation of high standards within it, it becomes simpler for them to approach their work with a sense of gravity, thereby making learning an issue of following the teacher's inspiring example rather than one of coercion and submission.

In one of the interviews, T6 mentioned that passion for teaching is crucial as it is the only factor that provides the necessary support for them to overcome the difficulties of the profession; without it, "I think I would have quit so long ago". Such emphasis on passion was further iterated by SH4, who said that lack of passion might negatively impact a teacher's performance, thus making it imperative to possess the desire and passion for teaching. The study's participants acknowledged that passion for teaching is the driving force behind a teacher's improvement and effectiveness. The experienced educators maintained that it keeps them going in the profession, besides being the most crucial aspect of being a quality English language teacher.

In another interview, T4 mentioned that having a passion for the subject and the students is necessary, without which they can "kill the teaching profession". Even though T4 mentioned the possibility for a teacher to be "a good teacher without passion", true success in teaching requires a genuine passion for the profession that extends beyond the classroom. A consensus among the participants in this study is that being passionate is linked to being committed to teaching, which involves being willing to learn along the journey, wanting the best for the students and doing things for the sake of the students. T6 supported this statement and described her commitment to finding out how to solve a problem, trying it out with the students and finding satisfaction.

"I love the part whereby I see a problem, and then even while driving, I'll be thinking about how to dissect that, how to get through to the students and then try it out in class. Then when you see it well, oh, I tell you that feeling is so great. You know, that they can do it because of this way you thought of."
(T6)

This finding echoes the statement by Mart and Deniz (2013), whereby they claimed that a teacher who is passionate about their subject could consider a problem from various angles and is constantly engaged in their classroom. In conclusion, a passionate teacher will work hard to establish a close teacher-learner relationship to create an exciting and positive learning environment that facilitates student

development through a supportive learning environment.

Cognitive Abilities

A recurrent theme in the interviews was a general agreement amongst interviewees that a quality teacher's second attribute was related to cognitive abilities. Two sub-themes related to cognitive abilities emerged from the analysis: the proficiency level of the English language teachers and pedagogical knowledge and skills. When asked about the role of proficiency in affecting the student's performance, the participants were unanimous in the view that proficiency was essential to becoming a quality English language teacher and ineffective teaching. This observation could affect the current policy where novice and in-service teachers must achieve the C1 level under the Common European Framework of Reference for Languages (CEFR). SH3 mentioned that:

“The teachers, they have to afford the CEFR level. They have to achieve C1. C1 right? For lecturers, we have to achieve C2; C2 is a band six. Well, yeah, I guess when you talk about quality, like what you said just now proficiency, comes first.”

As the source of knowledge, the teachers are the focal point for the students, and how they communicate will influence how they learn and absorb information. This view was echoed by T1, who said:

“It does have an effect whether directly or indirectly, that's not really the point,

but you are the source of knowledge. You are the point of focus for your students. So how you project your language is how the students will simulate.” (T1)

Such emphasis on the importance of the teacher's proficiency is poignant, as it may affect the classroom's instruction and the teacher's self-confidence. As one interviewee put it:

“Of course, you should have at least above-average proficiency, definitely. Because some students they're quite proficient in English and once they realise that you make mistakes or you're not as good, they will really look down on you.” (T5)

These excerpts provide essential insights into the importance of language proficiency for becoming a quality English language teacher. It should be noted that the stakeholders mentioned proficiency slightly more than the school teachers, possibly due to the current policy. Proficiency is vital, and teachers who make mistakes or are not as skilled in English may affect classroom instruction and be looked down on.

Another significant aspect of cognitive abilities is pedagogical content knowledge and skills. According to Ikromova (2020), pedagogical content knowledge involves the teacher's understanding of the subject matter, teaching techniques, psychology, communication skills, professional autonomy, pedagogical approach, and personal values and beliefs. On the other hand, pedagogical skills are those connected

to teaching and learning that are crucial for teachers, such as creating adequate lesson plans, effectively managing one's classes, selecting an appropriate teaching-learning technique, and acting as a learning support system for the students (Rahman et al., 2020). Participants in this study stressed the need for teachers to be reasonably good in both pedagogical content knowledge and pedagogical skills.

“You have to know both, and you have to know both equally good in order to be a good teacher. You cannot be knowing knowledge, but the pedagogical skills are zero. So, knowledge will not reach the student. You might have all the pedagogical skills, you have all the activities, and interesting activities in the classroom, but you don't have the content; it will not be good because the students will not learn anything... So, a good teacher, a good English teacher should have a balance of both content knowledge and also pedagogical skills...” (SH4)

The importance of pedagogical knowledge and skills is also in tandem with the standards stipulated in the Malaysian Teacher Standards (MTS) established in 2009, where teachers are expected to have sound knowledge of the subject matter, curriculum and co-curriculum to teach effectively and to exhibit skills of teaching and learning, particularly in planning, implementing and evaluating their lessons (Goh & Wong, 2015).

Social-Emotional Competencies

Another prominent finding to emerge from the analysis of the attributes of a quality ELT is Emotional Intelligence (EQ). Teachers with a high EQ can better connect with their students, understand their needs, and create a supportive learning environment. EQ enables teachers to recognise their students' emotions and respond appropriately, leading to better engagement and learning outcomes. In this study, participants have highlighted the importance of having and showing empathy, compassion and human touch when interacting with the students, as this would affect the teacher-learner relationships and may be a driving factor towards successful teaching and learning. One of the experienced teachers, T3, described that EQ plays a significant role in a teacher's life.

“I'm a strong believer of Daniel Goleman. Emotional intelligence, because we were talking about IQ, but we've forgotten about EQ... Emotional quotient...I think nowadays some of the teachers, they actually lack of EQ... They focus more on the IQ, but some of them are really lack of EQ; this is through my observation...So, those are the elements that been left out in a teacher. So, EQ plays a very huge role in teacher's life as well... It's not only IQ, but EQ as well (*sic*).” (T3)

The view suggests that EQ is crucial for teachers to connect with their students, understand their needs, create a supportive learning environment, manage behaviour,

handle stress, and maintain professionalism. Therefore, teachers should develop their EQ and IQ to become effective educators. A similar belief was expressed by SH5, where personalised human touch in the classroom can eventually make the students more interested in learning:

“So, all this while yes, I had a case, I mean, students who are not interested to learn. But the thing that I put in mind is to control their heart... Once you control that human touch, you give that human touch; something else will be coming later.”

The results reported here reveal the importance of emotional intelligence (EQ)

in delivering effective English language teaching (ELT). To date, there were some suggestions from previous studies that teachers’ affective empathy would positively impact the students’ motivation to learn (Aldrup et al., 2022; Weisz et al., 2020). In addition, the teachers who participated in this study also believed that understanding the students’ problems is needed so that teachers can give helpful advice and give them something to look forward to so that they will have the motivation to come to school. These results highlight that EQ is important in building a good teacher-student relationship.

Table 2
Personality traits

Personality traits	Verbatim from Teachers	Verbatim from Stakeholders
Approachable	“We have to be friendly, but not too friendly. We have to talk to them. We have to create like a non-threatening environment with the students. Especially nowadays that we have to encourage them to improve their skills, especially when it comes to communication.” (T9)	“You can be their friends. You see. It doesn't mean that I'm a teacher, the more authoritative one, all the instruction would be coming from me and you will not take into consideration whatever suggestions that might come from your students.” (SH5)
Flexible or open	“I've learned that rigidity doesn't work, flexibility works with students...When you put up a strong, rigid front, they will reply in kind. So, if we goofed around a bit, there was a reply in kind, but that breaks down the barrier and I can get to them easier...Over the years I've learned to be less rigid, more flexible, and then open to suggestions.” (T1)	“So, if you want to be a good teacher, a good teacher, regardless of what subject you are teaching, again, you need to have the attitude to be open to whatever you are given to...if you are given so many tasks, take it positively. That's the attitude that I think a good teacher should have.” (SH5)

Table 2 (Continue)

Personality traits	Verbatim from Teachers	Verbatim from Stakeholders
Creative	“So, you have to be very creative with your classes. You know, you have to engage them in the multi-sensory lessons. You can't just expect them to sit down and read... and do exercises. That is really a recipe for disaster for your class.” (T1)	-
Admitting mistakes	“And telling them it's nothing wrong if you have made a mistake in class...the moment you say class, I'm so sorry, I made a mistake. It should be like this...The moment you say that...the students will respect you more.” (T8)	-
Patient	“Patience. (laughs) Okay. Being a teacher, you need bucket pools of patience...” (T1)	“So, we have to adapt well to that situation. And of course, patience.” (SH1)

Personality Traits

Some personality traits were associated with quality English language teachers, including being approachable, flexible or open, creative, admitting mistakes, and patient. This result ties nicely with previous studies that prove personality is one of the factors in quality teachers and effective teaching (Hamid et al., 2012; Ikromova, 2020; Mohammaditabar et al., 2020). According to Hamid et al. (2012), a teacher’s personality includes their attitudes toward teaching, drive to support students’ growth and development, commitment to professional ethics and discipline, and understanding of the personal relevance and significance of education for each student. Table 2 summarises these traits together with verbatim evidence from the interviews.

The findings above demonstrated two things. First, being approachable or friendly was deemed an essential personality as it would help get the students interested in learning the subject and build a sense of trust and good rapport with the students. One teacher even explicitly stated that a teacher needs to approach or try to befriend the problematic student because they believe that once a teacher diplomatically tackles the disciplinary problems among the students, students would likely give their attention to the teacher. Second, a flexible teacher was described as someone capable of tailoring their lesson plans to the needs of the students, allowing lessons to have a much looser structure, and taking into account the students’ suggestions or feedback when deciding their classroom activities

or making immediate adjustments to suit classroom circumstances. It is especially important in an L2 setting where students in the classroom come from various cultural backgrounds with different abilities.

‘Going Beyond Just Teaching’

In our research, we have identified a fascinating concept that we refer to as “going beyond just teaching”. It refers to instructional methods that transcend the traditional classroom setting and involve teachers’ actions and intentions outside this context. We contend that this theme warrants a category of its own because it encompasses teachers’ willingness to share their knowledge, best practices, and dedication to going the extra mile for their students. In essence, this study manages to discover three critical practices that are categorised as “going beyond teaching”: the teacher’s willingness to share knowledge and best practices, the willingness to go the extra mile for the benefit of their students, and the desire to teach students valuable life lessons.

Three of the stakeholders mentioned that the desire to share knowledge is one of the signs of an expert teacher. Similarly, two experienced teachers described how they had reached a stage where good classroom practices should be shared with others to help them solve classroom problems via innovations and conferences. T10 mentioned that:

“...I’m into action research, where I use my students as my client; I find

ways to overcome their problems by writing a research paper for that...I joined competitions and present what I did in my class... I show others how I overcome certain problems in my class. I brand it and I show it to others and help others to overcome the same problems in their class by using my innovation.”

Illustrating going the extra mile for the students, one experienced teacher recounted a difficult student being rude in class and facing a week-long suspension from school. Instead of punishing the student, the teacher went to the student’s parents’ house to investigate if there were any underlying problems and encouraged the student to return to school. This instance exemplifies the teacher’s willingness to go the extra mile for their students.

In addition, teaching life lessons and raising students’ awareness of the world beyond the classroom is also seen as an act of a fully transformed expert teacher. It involves various roles to expand their expertise and knowledge beyond the classroom context. T4 mentioned that:

“Teaching is no more like just a book. It’s more like, it’s, this is a living study thing. We don’t just look at books. You have to go beyond; now it’s more like life-learning. It’s no more just the core subject, but it’s more on life...You see as a teacher, you are a mother. Yeah. You’re even a planner, a counsellor, and then you also, yeah, you do a lot of things. Even nursing also, you have to do (sic).” (T4)

From the results, affective factors such as passion, socio-emotional competence, and personality traits are essential to developing a quality English language teacher. Thus, cultivating passion among teachers and developing their social-emotional competencies should be recognised and made explicit in teacher training programs. The findings demonstrate that teacher educators must formally expose prospective teachers to this tacit knowledge to advance their careers. Focusing on these components is crucial because the findings of this current study have shown that these affective factors are the essence of good quality teachers and, hence, the ‘jewels’ of the teacher education curriculum.

CONCLUSION

In this study, we argue that a teacher’s affective awareness of the student’s needs and passion for teaching could be extended as crucial attributes of a quality English language teacher. One of the contributions of this study is the inclusion of the role of passion, emotional intelligence, and social-emotional competencies in considering and looking at the quality of an English language teacher compared to previous studies which focused on cognitive abilities and personality traits. The knowledge gained from this study advances our understanding of the qualities required to don a teacher’s hat and those needed to remain and thrive in the teaching field. Prospective teachers can benefit from the study’s findings by gaining awareness of expert teachers’ responsibilities, challenges, and strategies.

Cognitive abilities, including content knowledge and pedagogical skills, and social-emotional competencies (SEC), such as building positive teacher-student rapport, are highlighted as essential for effective English language teaching. In addition, contrary to the gap found in previous literature, teachers and stakeholders were found to equally emphasise social-emotional competencies alongside cognitive abilities as the main attributes of a quality teacher.

Thus, the study has contributed to an integrative model of teacher quality encompassing teachers’ passion for teaching, social-emotional competencies, cognitive abilities, personality traits and the concept of ‘going beyond teaching’ as multidimensional criteria when discussing teacher quality (Figure 4). This study suggests a need to develop a more comprehensive and holistic assessment of a teacher’s professionalism or competency that considers not just their pedagogical ability and academic achievement but also other affective factors like emotional intelligence and social skills.

The study underscores the importance of restructuring ESL teacher training curricula to emphasise passion, empathy, adaptability, creativity, and innovation in problem-solving. This shift in focus, nurturing the “teacher’s soul,” is crucial for producing high-quality English language educators passionate about holistic student development. There is a significant need to integrate SEC into teacher training and professional development programs. Explicit instruction and frameworks such as the Collaborative for Academic, Social

Emotional Learning (CASEL) or the Domains and Manifestations of Social-emotional Competences (DOMASEC) can guide the development of SEC (Boyatzis, 2018; Schoon, 2021) tailored to the local context, aligning with Malaysian Teacher Standards (MTS) and National Education Policy (NEP). SEC integration should involve sequenced, active, focused, and explicit instructional methods to ensure comprehensive development.

These implications collectively emphasise the importance of teacher involvement in policy decisions, the significance of social-emotional competencies, and the need for a dynamic and holistic approach to teacher training and development. By embracing these recommendations, the education system can better prepare teachers to meet the diverse needs of students and adapt to the evolving landscape of English language teaching.

This study has several limitations. Firstly, although widely accepted, the nature of the phenomenological study, which mainly uses in-depth interviews, resulted in fewer participants to get more transferable results. Future research should consider expanding the participant sample to include a wider range of individuals, including early-career teachers, to add a more comprehensive understanding of the topic. Furthermore, it is essential to understand the intricate relationship between teacher quality attributes, particularly social-emotional competencies (SEC), and their impact on teachers' performance, classroom management, and student-teacher

relationships. Although some research has shown correlations between teacher SEC and students' academic achievements (Schoon, 2021; Goe & Stickler, 2008), there is a need for empirical studies to establish causal relationships in the context of ESL teacher education. Future research endeavours should look into these correlations, elucidate the distinct facets of SEC, and refine assessment models to suit diverse contexts. It will provide a more comprehensive understanding of how these attributes shape effective teaching practices and teacher-student dynamics.

Nevertheless, this study has contributed to a fresh perspective and provided in-depth descriptions of teacher quality. It has also enriched the existing body of knowledge in teacher quality studies, which have predominantly relied on self-assessment questionnaires rated by students and student-teachers.

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Prosedur Analisis ATLAS.ti Bersistematik: Pembinaan Kata Kunci Utama Soalan Karangan Bahasa Melayu SPM

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ABSTRAK

Perisian ATLAS.ti 24 mampu diaplikasikan bagi menganalisis koleksi data secara sistematik. Tujuan kajian ini adalah untuk menganalisis soalan karangan Bahasa Melayu Sijil Pelajaran Malaysia (SPM) bagi pembinaan kata kunci utama. Data kajian menggunakan soalan karangan Bahasa Melayu SPM sebenar, soalan karangan Bahasa Melayu SPM ulangan dan soalan karangan Bahasa Melayu SPM percubaan dari tahun 2010 hingga tahun 2020. Prosedur Model NCT Friese yang terdiri daripada komponen *Noticing things*, *Collecting things* dan *Thinking about things* diaplikasikan bersama tujuh fasa *Thematic Content Analysis* (TCA) Friese bagi memperincikan proses analisis. Alat Pembinaan Soalan Kajian (RQDT), iaitu PICO yang mewakili Populasi, Minat dan Konteks diadaptasi sebagai asas pembinaan tema dalam analisis menggunakan perisian ATLAS.ti 24. Berdasarkan penyelidikan ini, satu prosedur analisis ATLAS.ti bersistematik dibina. Selain itu, soalan karangan SPM dapat dikategorikan kepada empat aspek utama dengan satu tambahan kategori 'Bentuk' menjadi PICOB. Selain itu, terdapat enam kata kunci utama yang mewakili tema 'Populasi', tiga kata kunci utama yang mewakili tema 'Fokus' dan 19 kata kunci utama yang mewakili tema 'Konteks'. Perkongsian prosedur analisis ini memberi panduan kepada penyelidik seterusnya untuk penambahbaikan analisis menggunakan perisian ATLAS.

ti. Hasil penyelidikan ini juga diharapkan mampu menjana inovasi guru-guru dalam proses menganalisis sesuatu bahan serta membantu penulisan karangan pelajar agar fokus kepada kehendak soalan.

Kata Kunci: ATLAS.ti 24, kata kunci utama, model NCT, PICO, soalan karangan bahasa Melayu, SPM

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Systematic ATLAS.ti Analysis Procedure: Development Main Keywords of SPM Malay Essay Questions

ABSTRACT

ATLAS.ti 24 software can be applied to analyse data collection systematically. This study aims to analyse the Malay essay questions of Sijil Pelajaran Malaysia (SPM) to develop the main keywords. Research data using real SPM Malay essay questions, repeat SPM Malay essay questions and experimental SPM Malay essay questions from 2010 to 2020. The NCT Friese Model procedure consists of Noticing things, Collecting things and Thinking about things, and components are applied to the seven phases of Friese's Thematic Content Analysis (TCA) to detail the analysis process. The Research Question Development Tool (RQDT) is PICO representing Population, Interest and Context and was adapted as the basis of theme development in the analysis using ATLAS.ti software 24. Based on this research, a systematic ATLAS.ti analysis procedure was built. In addition, SPM essay questions can be categorized into four main aspects, with an additional 'Form' category, PICOB. Additionally, six main keywords represent the 'Population' theme, three main keywords represent the 'Focus' theme, and 19 main keywords represent the 'Context' theme. This sharing of analysis procedures guides subsequent researchers to improve analysis using ATLAS.ti software. The results of this research are also expected to generate innovation in teachers in the process of analysing material and help students write essays to focus on the requirements of the question.

Keywords: ATLAS.ti 24, main keywords, NCT model, PICO, Malay essay questions, SPM

PENGENALAN

Soalan karangan SPM sering menjadi bahan analisis bagi tujuan menghasilkan soalan ramalan. Soalan karangan juga merupakan bahagian yang penting untuk difahami agar jawapan yang diberikan sesuai dengan kehendak soalan. Hal ini memerlukan kemahiran pelajar mengenal pasti kehendak soalan. Berdasarkan Kupasan Mutu Jawapan Bahasa Melayu 1103/1 SPM tahun 2003 hingga 2021 yang diterbitkan oleh Lembaga Peperiksaan Malaysia, calon perlu menganalisis kehendak soalan

sebelum menjawabnya. Dalam kajian ini, 'kehendak soalan' dikenali sebagai 'kata kunci' dalam soalan karangan. Dalam usaha memberikan kefahaman kepada pelajar, analisis kata kunci dalam soalan karangan perlu diperincikan. Selaras dengan kemajuan bidang penyelidikan hari ini, proses menganalisis soalan karangan mampu dilakukan dengan lebih sistematik. Dalam bidang penyelidikan, beberapa perisian digunakan bagi membantu proses analisis termasuklah perisian ATLAS.ti 24.

Perisian ini banyak membantu dalam proses menganalisis data secara tematik.

Beberapa penyelidikan lepas seperti kajian Saad et al. (2014) telah menggunakan perisian ATLAS.ti berdasarkan enam garis panduan analisis tematik Braun dan Clarke (2006). Bakar et al. (2020) pula telah menggunakan perisian ini bagi mengenal pasti kategori tema utama dalam analisisnya. Penggunaan perisian ini juga digunakan bagi memaparkan hasil analisisnya dalam bentuk visual. Selain itu, Johnson et al. (2014) telah menggunakan perisian ini bagi membina analisis berbentuk induktif dalam kajiannya. Perkembangan beberapa kajian lain yang menggunakan perisian ATLAS.ti juga telah membuktikan bahawa perisian ini efektif untuk diaplikasikan dalam kajian.

Penggunaan teknik kata kunci pula banyak diaplikasikan dalam proses pencarian artikel. Pembinaan kata kunci merupakan salah satu prosedur dalam kajian sorotan literatur bersistematik (SLR) bagi mendapatkan artikel yang relevan dalam sesuatu pangkalan data. Selain itu, kata kunci yang dibina juga perlu diselaraskan dengan persoalan kajian. Antara strategi yang sering digunakan adalah dengan menggunakan alat pembinaan soalan kajian (RQDT), iaitu PICo. Huruf P mewakili 'Populasi', huruf I mewakili 'Minat' dan gabungan huruf Co mewakili 'Konteks'. Penggunaan alat ini membolehkan soalan kajian dapat dikategorikan kepada aspek-aspek tertentu. Berdasarkan Mohamed Shaffril et al. (2020), kata kunci sinonim dapat diluaskan dengan merujuk tesaurus dalam talian, rujukan kajian lepas, kata kunci yang disarankan dalam pangkalan data dan kata kunci yang dicadangkan oleh pakar.

Antara penyelidikan yang menerangkan atau menggunakan alat pembinaan soalan kajian PICo bagi menentukan kata kunci dapat diperhatikan dalam Ismail dan Sarudin (2023), Mohamed Shaffril et al. (2020, 2021), Hill et al. (2018), Johnson dan Hennessy (2019), Linares-Espinos et al. (2018) dan Tawfik et al. (2019).

SOROTAN KAJIAN

Kemahiran menulis karangan peringkat SPM telah banyak dikaji oleh penyelidik terdahulu. Sumbangan markah yang tinggi dalam SPM menjadikan kemahiran ini terus diteroka dari pelbagai sudut. Antaranya termasuklah Othman dan Suzanawaty (2014) yang melihat kesan pembelajaran berasaskan projek penulisan berbentuk risalah bagi meningkatkan penguasaan kemahiran menulis. Kajian ini memberi fokus pada soalan yang diberikan bagi memastikan kesesuaian serta kemampuan pelajar memahami soalan dengan jelas. Dalam Ismail (2015), kajian ditumpukan pada analisis struktur dan bentuk ayat dalam karangan bagi melihat variasi binaan ayat dalam penulisan karangan. Walaupun kajian ini menggunakan data karangan, namun penulisannya turut melibatkan perbincangan berkaitan idea penulisan pelajar yang tidak menepati kehendak soalan.

Kajian Jalil (2016) yang menganalisis tingkah laku dan proses semasa menulis karangan respons terbuka turut membincangkan isu yang sama. Pelajar dikatakan tidak memilih soalan dengan tepat kerana tidak membaca soalan karangan dengan teliti. Pemilihan soalan ini berkait

dengan penggunaan teknik kata kunci dalam mendapatkan tiga perkara utama dalam soalan karangan, iaitu penentuan tema, arah soalan dan format penulisan. Namun demikian, Ismail dan Sarudin (2022) pula telah menemukan tiga elemen penting dalam soalan karangan, iaitu aspek populasi, aspek fokus dan aspek konteks. Dalam Mohamed Mokhtar dan Jamil (2020), kajian difokuskan pada langkah yang diambil oleh guru bagi melaksanakan pengajaran penulisan karangan berasaskan kemahiran berfikir aras tinggi. Kajian ini mengetengahkan keperluan guru untuk menguasai kemahiran berfikir aras tinggi bagi menjana kaedah menarik dalam pengajaran karangan. Kaedah menarik yang diaplikasikan berdasarkan kemahiran berfikir aras tinggi ini merupakan salah satu usaha bagi mengatasi masalah murid yang keliru dalam pemilihan tajuk karangan. Sebelum itu, Gunaseraran (2017) ada membincangkan berkaitan langkah yang pragmatik dalam meningkatkan kemahiran menulis karangan jenis keperihal dan laporan berdasarkan satu reka bentuk tertentu. Dapatan kajiannya turut menyatakan bahawa permasalahan utama penulisan karangan masih melibatkan kelemahan pelajar mentafsir kehendak soalan, tidak mengenali format soalan, tidak dapat mengembangkan idea dan tidak didedahkan teknik penulisan tertentu.

Dalam Ismail dan Sarudin (2022), perisian ATLAS.ti telah digunakan bagi menganalisis soalan karangan. Namun demikian, perbincangan berkaitan proses yang berlaku pada setiap tahap analisis ATLAS.ti masih berpotensi

untuk diperincikan. Selain itu, dapatan analisis ATLAS.ti yang dibincangkan juga bermotivasi untuk dikembangkan dengan lebih terperinci terutama berkaitan dengan proses pembinaan kata kunci utama. Pembinaan kata kunci utama juga berkait dengan analisis tematik menggunakan perisian ATLAS.ti (Soratto et al., 2020). Dalam Friese (2014), model NCT, iaitu ‘Memerhatikan’ (*noticing things*), ‘Mengumpulkan’ (*collecting things*) dan ‘Memikirkan’ (*thinking about things*) telah diperkenalkan. Penulisan berkaitan model ini lebih cenderung kepada penggunaan tahap demi tahap pada perisian ATLAS.ti, sebaliknya penggunaan bagi membina tema masih memerlukan perbincangan yang mendalam. Dalam Friese et al. (2018), kaedah analisis tematik Braun dan Clarke (2006) menggunakan ATLAS.ti dilihat mengisi kelompongan Model NCT. Walaupun perbincangan berkaitan analisis tematik ATLAS.ti dibincangkan, namun perkaitan dengan model NCT sebelum ini tidak diselaraskan. Ismail dan Sarudin (2023) dalam kajiannya turut menggunakan model NCT bagi membina tema. Dalam kajiannya, perincian bagi setiap tahap NCT bagi pembinaan tema juga masih memerlukan perbincangan yang terperinci kerana penulisan tersebut lebih tertumpu pada proses menghasilkan sorotan literatur bersistematik.

Berdasarkan kajian lepas, minat penyelidikan lebih tertumpu kepada menganalisis data karangan. Namun demikian, aspek yang melibatkan soalan karangan turut dibincangkan. Perbincangan

berkaitan soalan karangan ini juga dilihat mendorong kepada pembinaan kaedah atau teknik menulis karangan melalui pembinaan kata kunci. Dapatan lepas juga menunjukkan pembinaan kata kunci yang merujuk kepada perkara utama sesuatu ayat dapat dilakukan menggunakan perisian ATLAS.ti. Oleh yang demikian, satu kajian sistematik dengan perisian ATLAS.ti dilaksanakan bagi mengenal pasti kata kunci utama yang mewakili keseluruhan kehendak soalan dalam karangan SPM.

PERNYATAAN MASALAH

Penggunaan perisian ATLAS.ti sebagai *Computer-Aided Qualitative Data Analysis Software* (CAQDAS) dalam penyelidikan seiring dengan teknologi *Artificial Intelligence* (AI) yang sedang berkembang. Walaupun terdapat beberapa perisian lain seperti Nvivo, kajian bagi membandingkan antara perisian agak sukar kerana kedua-duanya melibatkan perisian analisis data kualitatif (CAQDAS). Dalam Paulus et al. (2017), kajiannya menggunakan istilah QADS manakala nama ATLAS.ti atau Nvivo digunakan secara terhad bagi merujuk kepada perkara yang sama. Beliau turut menyatakan bahawa aspek perbandingan cenderung melibatkan pengaruh kepakaran seseorang penyelidik. Hasil penyelidikan menggunakan CAQDAS telah mengumpulkan pelbagai prosedur yang dapat dijadikan garis panduan kepada penyelidik.

Dalam Soratto et al. (2020), ATLAS.ti diaplikasikan menggunakan kaedah analisis kandungan tematik. Dalam kaedah

ini, proses analisis dibahagikan kepada tiga fasa, iaitu fasa praanalisis, fasa penerokaan dan fasa tafsiran. Walaupun kaedah ini membincangkan kaedah analisis ATLAS.ti, perincian perbincangan lebih berfokus pada analisis tematik Braun dan Clarke (2006). Fasa yang dibincangkan mempunyai persamaan dengan model Friese (2014), iaitu melibatkan fasa pemerhatian, fasa penyusunan dan fasa memikirkan. Namun demikian, perbincangan model Friese (2014) lebih terarah pada penggunaan ATLAS.ti sepenuhnya tanpa melibatkan perbincangan proses analisis tematik. Woolf dan Silver (2017) pula telah memperkenalkan kaedah QDA lima tahap dengan menggunakan ATLAS.ti, iaitu tahap objektif, tahap perancangan analisis, tahap tafsiran, tahap pemilihan alat analisis dan tahap pembinaan alat analisis.

Kaedah QDA lima tahap turut membincangkan analisis tematik pada tahap tiga, iaitu tahap tafsiran. Tahap yang diperkenalkan ini membantu pengguna ATLAS.ti dalam proses menggunakan perisian untuk analisis. Kaedah analisis ATLAS.ti turut menarik minat Saldana (2016) untuk membincangkannya. Namun demikian, perbincangan lebih berfokus pada peringkat proses pengekodan, iaitu keperluan binaan hirarki tema, kategori dan kod tanpa melibatkan perbincangan berkaitan perisian ATLAS.ti secara terperinci. Walaupun prosedur atau kaedah tersebut mempunyai cara kerja yang tersendiri bagi menggunakan perisian ATLAS.ti dalam proses menganalisis. Namun demikian, dapat diperhatikan bahawa analisisnya

tertumpu pada bentuk analisis tematik. Selaras dengan cadangan Braun dan Clarke (2006) bahawa analisis tematik perlu menjadi kaedah asas untuk analisis kualitatif. Dalam kajian ini, prosedur NCT Friese (2014) akan diperincikan dengan fasa-fasa dalam *Thematic Content Analysis* (TCA) Friese et al. (2018).

Penggunaan RQDT (PICO) pula telah banyak membantu proses pencarian artikel dalam kajian SLR. Empat tema, iaitu Populasi (P), Fokus atau Minat (I), Konteks (C) dan Bentuk (B) diadaptasi daripada teknik carian artikel untuk kajian literatur bersistematik yang dikenali sebagai formula soalan kajian (*Formulation of research questions*). Dalam bentuk asalnya, formula ini menggunakan istilah *Population* atau *Problem* (P), *Interest* (I) dan *Context* (Co) (Mohamed Shaffril et al., 2020). Tema 'Bentuk' ditambah dalam kajian ini apabila soalan karangan SPM melibatkan arahan untuk menghasilkan bentuk atau format karangan yang berbeza. Berdasarkan Petticrew dan Roberts (2006), Mohamed Shaffril et al. (2020), Colas-Bravo et al. (2021), Ismail dan Sarudin (2023) dan beberapa lagi pengkaji lain, formula soalan kajian, PICO memberi kemudahan kepada penyelidik untuk membina frasa carian berbentuk *search string* bagi artikel yang melibatkan kajian yang tertentu. Pembahagian kategori dalam PICO yang digunakan untuk membina soalan kajian membantu carian dilakukan secara lebih berfokus (Linares-Espinos et al., 2018; Mohamed Shaffril et al., 2020, 2021; Tawfik et al., 2019). PICO yang dirujuk sebagai

formula berasal daripada pembentukan kata kunci pada tema-tema yang menjadi asas kepada pembinaan soalan kajian. Teknik ini berpotensi untuk diadaptasi dalam soalan karangan bahasa Melayu SPM atas kriterianya yang mempunyai persamaan, iaitu berbentuk soalan. Dalam kajian ini, formula ini diadaptasi untuk membina formula atau rumus yang berpotensi bagi penulisan karangan.

Selain itu, kebanyakan kajian karangan seperti dalam Gunaseraran (2017), Jalil (2016), Mohamed Mokhtar dan Jamil (2020), Othman dan Suzanawaty (2014) dan Ismail (2015) lebih tertumpu pada data karangan. Data karangan dianalisis berdasarkan kesalahan tatabahasa, kelemahan penggunaan kata majmuk dan sebagainya. Analisis soalan karangan sedia ada juga lebih tertumpu bagi membina soalan ramalan bagi tahun berikutnya berdasarkan koleksi tema soalan peperiksaan yang lepas. Analisis kata kunci pada soalan karangan dalam kajian ini adalah untuk membentuk rumus atau strategi penulisan karangan yang berpotensi serta dapat digunakan pada setiap tahun bagi penulisan karangan.

Kupasan Mutu Jawapan Bahasa Melayu 1103/1 SPM tahun 2003 hingga 2021 oleh Lembaga Peperiksaan telah memotivasikan kajian ini agar difokuskan pada analisis Soalan karangan, iaitu calon dikatakan perlu 'menganalisis kehendak soalan' atau 'memahami tugas' sebelum menjawabnya. Berikut merupakan Rajah 1 *sankey* yang memaparkan kenyataan tersebut. Paparan ini berdasarkan analisis *search string* pada penggunaan perkataan 'menganalisis soalan'

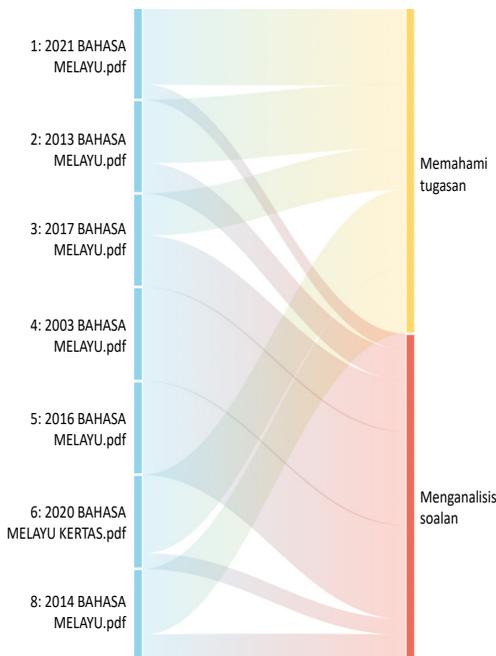
dan ‘memahami tugas’ yang hadir pada satu-satu ayat berdasarkan data Kupasan Mutu Jawapan tahun 2003 hingga 2021.

Maklumat yang terkandung dalam sesuatu dokumen dapat memberi info berguna kepada penyelidik. Dalam Savolainen et al. (2021), Weldemariam et al. (2017) dan Kim (2016), analisis dokumen yang dilakukan telah menemukan unsur budaya sebagai faktor dominan kepada pembentukan dokumen kurikulum. Selain itu, kajian Zaini et al. (2021) dan Ismail et al. (2022) menunjukkan bahawa maklumat seperti kekerapan penggunaan perkataan tertentu dikenal pasti serta semakan dapatan tersebut dapat dilakukan secara sistematik melalui analisis dokumen. Perkataan yang digunakan dalam sesuatu bahan juga

membawa makna tertentu. Dalam Mohamed Redzwan et al. (2020), analisis terhadap penggunaan perkataan tertentu menemukan beberapa petunjuk berguna kepada strategi berbahasa seseorang. Berdasarkan pernyataan masalah yang dibincangkan, persoalan kajian yang menjadi fokus dalam penulisan ini ialah apakah kata kunci utama bagi soalan karangan bahasa Melayu SPM? Dalam penulisan ini juga, pelbagai kata kunci yang digunakan dalam soalan akan disusun menjadi beberapa kategori dan dikumpulkan mengikut tema. Susunan ini diharapkan berpotensi untuk dikembangkan bagi menghasilkan satu strategi atau rumus untuk pelajar menulis karangan dengan baik.

METODOLOGI

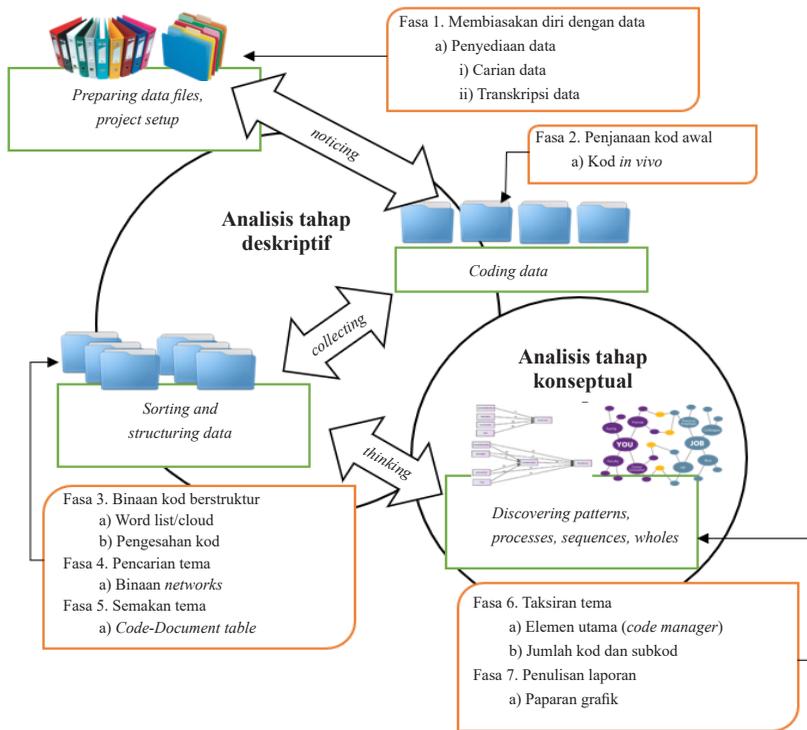
Kajian ini berbentuk kualitatif dengan berdasarkan *Computer-Aided Qualitative Data Analysis Software (CAQDAS)*, iaitu menggunakan perisian ATLAS.ti 24. Menurut Putri et al. (2020), tujuan kajian kualitatif adalah untuk menyediakan penerangan lengkap dan pemahaman mendalam tentang sesuatu perkara yang dikaji. Oleh yang demikian, analisis ATLAS.ti bersistemik menggunakan Model NCT Friese (2014) telah diaplikasikan bersama fasa analisis TCA Friese et al. (2018) bagi mendapatkan perincian pada setiap peringkat. Menurut Saldana (2016), model pengekodan sesuai untuk kajian kualitatif kerana telah ditetapkan dan diuji di lapangan. Prosedur model NCT Friese (2014) ini telah menggariskan tiga komponen dalam proses analisis, iaitu komponen ‘Memerhatikan’ (*noticing*



Rajah 1. Frasa ‘menganalisis soalan’ dan ‘memahami tugas’ dalam Kupasan Kupasan Mutu Jawapan Bahasa Melayu 1103/1 SPM tahun 2003 hingga 2021

things), ‘Mengumpulkan’ (*collecting things*) dan ‘Memikirkan’ (*thinking about things*). Sementara itu, TCA Friese et al. (2018) pula menyediakan tujuh fasa bagi penelitian proses analisis, iaitu fasa membiasa diri, fasa penjaanan kod awal, fasa binaan kod berstruktur, fasa pencarian tema, fasa

semakan tema, fasa takrifan tema dan akhir sekali fasa penulisan laporan. Berikut merupakan Rajah 2 Prosedur Analisis ATLAS.ti Bersistematik yang diadaptasi daripada Model NCT Friese (2014) dan fasa TCA Friese et al. (2018).



Rajah 2. Prosedur Analisis ATLAS.ti Bersistematik (diadaptasi daripada Model NCT Friese [2014] dan fasa TCA Friese et al. [2018])

Proses pembentukan tema dalam kajian ini pula berbentuk deduktif dengan mengadaptasi tema daripada literatur yang berkaitan dengan formula soalan kajian, iaitu tema ‘Populasi’ (P), ‘Fokus’ (I) dan ‘Konteks’ (Co). Seterusnya, bentuk tema deduktif ini beralih kepada bentuk induktif apabila terdapat maklumat baharu ditemukan dalam data. Dalam kajian Vila-

Henninger (2019), bentuk deduktif juga diadaptasi pada peringkat awal analisis dan seterusnya beralih kepada bentuk induktif. Boyatzis (1998, seperti yang dipetik dalam Saldana, 2016) turut menyatakan bahawa penyelidikan terdahulu wajar dijadikan sebagai asas untuk pembangunan kod bagi mengelakkan andaian, unjuran, dan bias.

Komponen Memerhatikan

Menurut Friese (2014), komponen ‘Memerhatikan’ melibatkan proses mencari perkara yang menarik dalam data yang digunakan. Perincian kepada komponen ini dapat dilihat berdasarkan fasa TCA Friese et al. (2018). Fasa ini merupakan proses membiasakan diri menyelidik dengan data. Fasa membiasakan diri ini berlaku dalam proses pengumpulan data, proses membaca serta menyalin data, menganalisis data peringkat awal menggunakan *word list/cloud*, membina *document groups* dan

menanda *quotation* pada perkara penting, (Friese et al. 2018). Dalam kajian ini, data kajian yang dikumpulkan merupakan koleksi soalan karangan SPM bermula dari tahun 2010 hingga 2020. Soalan ini terdiri daripada soalan karangan SPM sebenar, soalan karangan SPM ulangan dan soalan karangan SPM percubaan negeri-negeri yang dimuat turun daripada lima laman sesawang. Berikut merupakan laman sesawang yang digunakan bagi mendapatkan data kertas soalan.

Jadual 1

Laman sesawang bagi mendapatkan data kertas soalan

Bil	Laman Sesawang
1	http://bmspm.net/index.html (diperoleh pada 10 April 2022)
2	https://education.malaysia-students.com/2016/10/koleksi-soalan-percubaan-bahasa-melayu.html (diperoleh pada 12 April 2022)
3	https://gurubesar.my/soalan-percubaan-spm-bahasa-melayu-sbp-2018/ (diperoleh pada 10 April 2022)
4	http://smktanjongbunga-smktb.blogspot.com/2012/10/bank-soalan-bahasa-melayu.html (diperoleh pada 16 April 2022)
5	https://lamanbahasa.com/bank-soalan-2/ (diperoleh pada 12 April 2022)

Sebanyak 191 kertas soalan dikumpulkan, iaitu 10 kertas soalan daripada peperiksaan SPM sebenar, 11 kertas soalan daripada peperiksaan ulangan dan 170 kertas soalan daripada soalan peperiksaan percubaan bagi setiap negeri dan sekolah tertentu. Perbezaan jumlah kertas soalan tidak menjejaskan analisis kerana tujuan kajian tidak bermatlamatkan untuk membina soalan ramalan. Namun demikian, perbezaan jumlah kertas soalan tetap berlaku disebabkan beberapa faktor. Dalam kajian

ini, data kertas soalan SPM sebenar tahun 2020 tidak dapat diperoleh kerana kertas soalan tersebut ialah kertas soalan tertutup. Untuk beberapa kertas soalan percubaan pula, kertas soalan ini tidak dikeluarkan oleh Majlis Peperiksaan Malaysia sebaliknya merupakan soalan yang dikongsikan oleh individu sesebuah sekolah secara sukarela. Selain itu, walaupun data kertas soalan bagi tahun 2010, 2012, 2013, 2014, 2015, 2016, 2018 dan 2020 tidak dapat dikumpulkan secara menyeluruh, namun data yang

terkumpul memadai untuk mencapai konsep ketepuan kod. Hal ini berdasarkan analisis yang telah dilakukan dalam kajian ini, iaitu tiada lagi pertambahan kod yang dilakukan setelah lebih sembilan data dianalisis. Selain itu, Hennink et al. (2017) dan Ismail et al. (2022) turut menyatakan bahawa ketepuan kod dicapai apabila sembilan data telah digunakan. Sementara itu, kertas soalan percubaan melibatkan jumlah yang banyak kerana dikeluarkan mengikut negeri masing-masing.

Kajian ini juga tidak berfokuskan pada perbandingan bentuk soalan karangan

berdasarkan kategori sekolah, iaitu sekolah harian biasa, Sekolah Berasrama Penuh (SBP) dan Maktab Rendah Sains Mara (MRSM). Tambahan pula, format soalan serta aras soalan SPM adalah selaras untuk semua sekolah di Malaysia. Selain itu, bentuk soalan yang dibina oleh semua kategori sekolah berkenaan sama seperti sekolah harian biasa, iaitu mempunyai kata kunci utama berdasarkan PICo. Hasil daripada proses ini, 1146 soalan karangan bahagian A dan bahagian B dikumpulkan. Berikut merupakan perincian bagi setiap kertas soalan yang dikumpulkan.

Jadual 2
Kertas soalan SPM sebenar dan SPM ulangan

Peperiksaan	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
SPM sebenar	1	1	1	1	1	1	1	1	1	1	0
SPM ulangan	1	1	1	1	1	1	1	1	1	1	1

Jadual 3
Kertas soalan SPM percubaan bagi setiap negeri dan sekolah tertentu

Negeri	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Kelantan	1	1	1	1	1	1	1	1	1	1	1
Selangor	1	1	1	1	1	0	1	1	1	1	1
Sabah	1	1	0	0	1	1	1	1	1	1	0
Serawak	1	1	0	1	1	1	1	1	1	1	1
Pulau Pinang	1	1	1	1	1	1	1	1	1	1	1
WP	1	1	0	1	1	0	0	1	0	1	1
Perlis	1	1	1	0	0	1	1	1	1	1	1
Kedah	1	1	1	1	1	1	1	1	1	1	1
Johor	1	1	1	1	0	1	1	1	1	1	1
Negeri Sembilan	1	1	1	1	1	1	1	1	1	1	0
Terengganu	1	1	1	1	1	1	1	1	1	1	1

Jadual 3 (Sambung)

Negeri	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Pahang	1	1	1	1	1	1	1	1	1	1	1
Perak	1	1	1	1	1	1	1	1	1	1	1
Melaka	1	1	1	1	0	1	1	1	1	1	0
Yik	0	1	1	1	1	1	1	1	1	1	1
SBP	1	1	1	1	1	1	1	1	1	1	1
MRSM	1	1	1	1	1	1	1	1	1	1	1

Koleksi soalan karangan yang telah dimuat turun seterusnya diubah daripada bentuk PDF kepada bentuk Microsoft Word. Hal ini dilakukan kerana fail PDF yang dikongsikan secara tidak formal mempunyai beberapa kelemahan seperti kekaburan dan simbol-simbol yang tidak diperlukan. Proses ini perlu bagi membolehkan perisian ATLAS.ti menjana data dengan tepat. Menurut Friese et al. (2018), proses ini dilakukan dengan beberapa aktiviti termasuk pembacaan. Aktiviti pembacaan dalam kajian ini dilakukan bersama proses mengubah bentuk PDF kepada bentuk Microsoft Word. Transkripsi ini menggunakan

perisian Google Docs, iaitu melalui menu *Voice Typing*. Menurut Niebuhr et al. (2018), Google Docs merupakan perisian yang percuma, efektif serta menjimatkan masa penyelidik bagi proses transkripsi. Tambahan pula, Hecker dan Kalpokas (2022) turut mencadangkan agar proses ini dilakukan menggunakan alat transkripsi automatik untuk menjimatkan masa dan wang. Data yang dibaca dan ditranskripsi melibatkan kriteria kemasukan dan kriteria pengecualian bagi membolehkan ATLAS.ti hanya menganalisis soalan karangan. Berikut merupakan kriteria yang digunakan dalam proses transkripsi.

Jadual 4

Kriteria kemasukan bacaan dan transkripsi data

Kriteria Kemasukan	Kriteria Pengecualian
Jenis soalan	Muka depan soalan
Tahun soalan	Penerangan menjawab soalan.
Bahagian soalan	Penerangan Jumlah patah perkataan
Soalan karangan	Gambar rajah

Data yang telah ditranskripsi seterusnya dimuat naik ke perisian ATLAS.ti. Peringkat seterusnya melibatkan proses semakan pada data yang ditranskripsi. Menurut Hecker dan

Kalpokus (2022), transkripsi yang dijana secara automatik masih perlu disemak. Semakan transkripsi ini dilakukan dengan menggunakan kemudahan bacaan dalam

Proses menandakan *quotation* pula dilakukan bagi perkara yang penting. *Quotation* yang ditanda ini melibatkan perkataan atau frasa yang pada peringkat awal dirasakan mewakili kategori PICO. Setelah semua data disemak, analisis akan beralih kepada komponen ‘Mengumpulkan’.

Komponen Mengumpulkan

Komponen ‘Mengumpulkan’ melibatkan proses awal pengekodan. Proses ini berlaku secara berulang kali dan bergantung pada tujuan kajian dijalankan (Frieese, 2014). Menurut Frieese et al. (2018) dalam fasa TCA, Komponen ini melibatkan fasa penerokaan dan penjanaan kod awal, fasa pembinaan kod berstruktur, fasa pencarian tema, fasa semakan tema dan fasa mentakrifkan tema. Dalam fasa penerokaan dan penjanaan kod awal, pengekodan dilakukan menggunakan kod *in vivo*.

Pengekodan ini akan menamakan kod secara automatik berdasarkan data yang disegmenkan. Pada peringkat ini, alat pembinaan soalan kajian (RQDT) iaitu PICO diadaptasikan. Setiap soalan akan dikodkan berdasarkan kategori dalam PICO iaitu Populasi, Minat dan Konteks. Setiap tema ini dijadikan sebagai asas kepada pembahagian kod. Proses pengekodan pada peringkat ini telah menghasilkan beberapa kod dalam aspek PICO. Berikut merupakan gambar Rajah 5 hasil pengekodan peringkat awal.

Pada fasa pembinaan kod berstruktur, proses pengekodan *in vivo* pada peringkat awal dihentikan untuk membuat semakan senarai kod sehingga rangka pengekodan stabil. Dalam kajian ini, proses pengekodan melalui dua tahap, iaitu tahap pengekodan *in vivo* dan tahap penstrukturan semula kod yang dibina. Berdasarkan Rajah 5, tema ‘Populasi’ menghasilkan kod ‘keluarga’, ‘Malaysia’, ‘masyarakat dunia’, ‘pelajar’ dan ‘populasi yang tidak dinyatakan’. Tema ‘Minat’ pula telah menghasilkan enam kod iaitu ‘kata kunci umum’, ‘kesan’, ‘langkah’, ‘nilai’, ‘pengalaman’ dan ‘punca’. Akhir sekali, tema ‘Konteks’ masih kekal dengan kod asas PICO. Beberapa kod juga telah menunjukkan *groundedness* yang tinggi iaitu, ‘langkah’ sebanyak 487, ‘pelajar’ sebanyak 598 dan ‘konteks’ sebanyak 1204. Berdasarkan Frieese et al. (2018), kod yang “terlalu besar” menunjukkan bahawa kod tersebut telah digunakan pada terlalu banyak kejadian (*quotation*), kod ini perlu disemak dan kebanyakannya boleh dibahagikan kepada subkod seterusnya.

Category	Sub-code	Count
1. populasi (937)	Keluarga	157
	Masyarakat antarabangsa	46
	Masyarakat Malaysia	138
	pelajar	598
	Tidak dinyatakan populasi	4
	2. minat (978)	Kata Kunci Umum
2. minat (978)	Kesan	267
	Langkah	487
	nilai/tema/persoalan	9
	Pengalaman/potensi	6
	Punca/sebab/faktor	99
	3. Konteks (1,204)	
4. Bentuk (752)		

Rajah 5. Hasil pengekodan peringkat awal

Dalam kajian ini, tiga kod tersebut melalui fasa semakan. Subkod semakan ini dibina melalui analisis *word list/cloud*, bagi melihat kekerapan penggunaan perkataan

dalam kod berkenaan. Berikut merupakan Rajah 6, 7 dan 8 analisis *word list/cloud* bagi kod ‘langkah’, ‘pelajar’ dan ‘konteks’.



Word	Length	Count	%
usaha	5	197	...014
langkah	7	188	...963
peranan	7	142	...589
cara	4	90	...514
kerjasama	9	21	2.453
aktiviti	8	20	2.336
bentuk	6	18	2.103
yang	4	13	1.519
persediaan	10	9	1.051
huraikan	8	7	0.818
kemahiran	9	7	0.818
langkah-langkah	15	7	0.818
amalan	6	6	0.701

Rajah 6. Analisis *word list/cloud* bagi kod ‘langkah’

Word	Length	Count	%
anda	4	459	...636
sebagai	7	42	5.091
ingin	5	40	4.848
remaja	6	29	3.515
pelajar	7	16	1.939
yang	4	15	1.818
menulis	7	14	1.697
seorang	7	13	1.576
murid	5	11	1.333
telah	5	10	1.212
sekolah	7	9	1.091
kita	4	7	0.848
seseorang	9	7	0.848
akan	4	6	0.727
anak	4	6	0.727



Rajah 7. Analisis *word list/cloud* bagi kod ‘pelajar’

Berdasarkan Rajah di atas, analisis *word list/cloud* telah memberikan gambaran berkaitan perkataan yang mendominasi kod berkenaan. Kod ‘langkah’ seterusnya telah distrukturkan semula

menjadi sembilan subkod, iaitu ‘aktiviti’, ‘bentuk’, ‘cara’, ‘kerjasama’, ‘langkah’, ‘peranan’, ‘persediaan’, ‘usaha’ dan ‘kod lain-lain’ (DLL). Kod ‘pelajar’ pula telah distrukturkan kepada dua subkod,

Word	Length	Count	%
negara	6	71	2.197
dan	3	66	2.043
yang	4	65	2.012
keluarga	8	56	1.733
karya	5	45	1.393
peribahasa	10	43	1.331
ekonomi	7	41	1.269
pelancongan	11	38	1.176
ibu	3	33	1.021
industri	8	33	1.021
sukan	5	32	0.990
bapa	4	31	0.959
alam	4	27	0.836
budaya	6	27	0.836
kejiranan	9	27	0.836
perpaduan	9	26	0.805



Rajah 8. Analisis word list/cloud bagi kod ‘konteks’

iaitu subkod ‘berperanan’ dan subkod ‘melibatkan’. Penstrukturan kod ‘pelajar’ ini juga dilakukan berdasarkan analisis ATLAS.ti pada menu *quotation manager* yang menunjukkan ‘pelajar’ perlu berperanan bagi memberi pendapat dan ‘pelajar’ yang dilibatkan dalam situasi tertentu.

Akhir sekali, tema ‘Konteks’ terlalu kompleks apabila dianalisis menggunakan ATLAS.ti kerana melibatkan deretan ayat yang panjang dan memerlukan kefahaman penganalisis bagi menentukan konteks soalan. Dalam kajian ini, penstrukturan bagi tema ‘Konteks’ telah dibahagikan berdasarkan komponen tema yang dirujuk daripada Dokumen Standard Kurikulum dan Pentaksiran Bahasa Melayu Tingkatan 4 dan 5. Semakan bagi tema ‘Konteks’ telah menghasilkan 18 kod, iaitu ‘alam sekitar’, ‘bahasa dan kesusasteraan’, ‘ekonomi’, ‘integriti’, ‘jati diri’, ‘patriotisme dan kewarganegaraan’, ‘kebudayaan’, ‘kesenian dan estetika’, ‘kerjaya’, ‘keselamatan’, ‘kesihatan dan kebersihan’, ‘pelancongan’, ‘pendidikan’, ‘pentadbiran dan politik’,

‘perindustrian’, ‘perpaduan’, ‘pertanian’, ‘penterernakan dan perikanan’, ‘sains dan teknologi’, ‘sejarah dan warisan’ dan akhir sekali ‘sukan’. Namun demikian, kod ‘kekeluargaan’ turut ditambah kerana konteks ini jelas dapat diperhatikan muncul dalam soalan karangan.

Pada fasa pembinaan kod berstruktur, proses pengkodan terus dijalankan di samping berlakunya beberapa penyusunan dan penamaan semula kod dan subkod. Menurut Friese (2014), proses analisis pada komponen ini bukannya berbentuk linear, sebaliknya berpotensi untuk kembali kepada komponen ‘Memerhati’ dan komponen ‘Mengumpulkan’ secara berulang kali. Dalam fasa pembinaan kod berstruktur, proses pengesahan pada binaan kod turut dilakukan. Menurut Desai et al. (2022), proses ini perlu bagi memastikan kobolehpercayaan pada kod yang dibina sebelum beralih ke peringkat analisis seterusnya. Proses ini melibatkan semakan penulis bersama menggunakan analisis persetujuan antara kod (*inter-code*

agreement) yang disediakan dalam perisian ATLAS.ti. Dalam Ismail dan Sarudin (2023), fasa pengesahan diaplikasikan menggunakan nilai peratusan persetujuan mudah (*simple percent agreement*). Dalam kajiannya, kriteria penulis bersama yang mempunyai kepakaran dalam bidang kajian, iaitu bahasa Melayu serta perisian ATLAS.ti turut diambil kira.

Berdasarkan Friese (2022), analisis *inter-code agreement* membolehkan penyelidik menilai semula persetujuan kod yang dibina bagi pembentukan tema. Dalam penulisan ini, nilai pekali alfa Krippendorff (α) digunakan untuk mengukur persetujuan antara pengekod. Pekali alfa Krippendorff

(α) dalam analisis *inter-code agreement* ini memperoleh nilai 0.90, iaitu nilai yang diterima. Berdasarkan Krippendorff (2004), nilai $\alpha \geq 0.8$ merupakan nilai optimum untuk persetujuan diterima, manakala nilai $\alpha \geq 0.667$ merupakan nilai paling rendah untuk sesuatu persetujuan diterima. Hasil pengesahan ini membolehkan proses pengekodan diteruskan sehingga beberapa kod dan subkod yang stabil terbina. Berikut merupakan Rajah 9 paparan ATLAS.ti bagi binaan kod dan subkod untuk tema 'Populasi', 'Minat' dan 'Konteks' pada fasa pembinaan kod dan subkod untuk tema 'Populasi', 'Minat' dan 'Konteks' pada fasa pembinaan kod berstruktur.

		● 1. populasi
		937
● Keluarga	157	165
● Keluarga: berperanan (keluarga)	94	99
● Keluarga: melibatkan (keluarga)	63	66
● Masyarakat antarabangsa	46	46
● Masyarakat antarabangsa: Berperanan (masyarakat antarabangsa)	11	11
● Masyarakat antarabangsa: melibatkan (masyarakat antarabangsa)	35	35
● Masyarakat Malaysia	138	146
● Masyarakat Malaysia: berperanan (Masyarakat Malaysia)	53	60
● Masyarakat Malaysia: Melibatkan (Masyarakat Malaysia)	85	86
● pelajar	598	604
● pelajar: berperanan (pelajar)	535	540
● pelajar: melibatkan (pelajar)	87	88

Rajah 9. Binaan kod dan subkod bagi tema 'Populasi' pada fasa binaan kod berstruktur

Dalam Rajah 9, kod 'pelajar' menunjukkan kekerapan yang tinggi untuk tema 'Populasi', iaitu 604. Seterusnya kod 'keluarga' sebanyak 165. Kod 'masyarakat Malaysia', sebanyak 146 dan akhir sekali

kod 'masyarakat antarabangsa' sebanyak 46. Berikut merupakan Rajah 10 bagi binaan kod dan subkod untuk tema 'Minat' pada fasa binaan kod berstruktur.

	2. minat	978
● nilai/tema/persoalan	9	9
● Kata Kunci Umum	119	143
● Kesan	267	286
● Langkah	487	490
● Langkah: aktiviti	10	10
● Langkah: bentuk	11	11
● Langkah: cara	53	53
● Langkah: DLL	29	29
● Langkah: kerjasama	14	14
● Langkah: langkah	101	101
● Langkah: peranan	147	150
● Langkah: persediaan	19	19
● Langkah: usaha	103	103
● Pengalaman/potensi	6	6
● Punca/sebab/faktor	99	104

Rajah 10. Binaan kod dan subkod bagi tema 'Minat' pada fasa binaan kod berstruktur

Dalam Rajah 10, kod 'langkah' mendominasi tema 'Minat', iaitu sebanyak 490. Seterusnya diikuti kod 'kesan' sebanyak 286, kod 'punca' 104, kod 'kata kunci umum' 143, kod 'nilai' 9 dan akhir sekali kod 'pengalaman' 6. Berikut diteruskan dengan Rajah 11 bagi binaan kod dan subkod untuk tema 'Konteks' pada fasa binaan kod berstruktur.

Dalam tema 'Konteks', kod 'bahasa dan kesusasteraan' telah menunjukkan jumlah yang tinggi, iaitu 173. Seterusnya diikuti kod 'ekonomi' 144, kod 'jati diri' 106, kod 'kekeluargaan' 105, kod 'perpaduan' 104, kod 'pentadbiran' 98, kod 'kebudayaan dan kesenian' 85 dan beberapa kod lain yang menunjukkan purata kekerapan antara 20 hingga 69.

	3. Konteks	1204
● alam sekitar	59	60
● bahasa dan kesusasteraan	166	173
● ekonomi	137	144
● integriti	29	29
● jati diri, patriotisme dan kewarganegaraan	102	106
● kebudayaan, kesenian dan estetika	78	85
● kekeluargaan	99	105
● kerjaya	38	41
● keselamatan	60	61
● Kesihatan dan kebersihan	66	69
● pelancongan	62	66
● pendidikan	83	85
● pentadbiran dan politik	93	98
● perindustrian	23	28
● perpaduan	102	104
● pertanian, penternakan dan perikanan	17	20
● sains dan teknologi	49	51
● sejarah dan warisan	41	45
● sukan	53	60

Rajah 11. Binaan kod dan subkod bagi tema 'Konteks' pada fasa binaan kod berstruktur

Dalam fasa pencarian tema, proses membentuk nama tema tidak dilakukan kerana analisis dalam kajian ini telah menjadikan kategori PICO sebagai asas pembinaan kod. Kategori PICO secara tidak langsung menjadi tema bagi kod yang telah dibina. Namun demikian, binaan *networks* dilakukan bagi memastikan pembentukan tema, kod dan subkod adalah selari (Friese et al., 2018). Berikut merupakan Rajah 12 bagi binaan *networks* untuk setiap tema PICO, kod dan subkod yang telah dibina.

Fasa semakan tema pula dilakukan dengan menggunakan alat analisis ATLAS.ti, iaitu *Code-Document Table* dan *Code Cooccurrence Table*. Analisis ini dilakukan bagi melihat sama ada perhubungan berlaku di seluruh set data atau hanya digunakan

dalam kumpulan tertentu (Friese et al., 2018). Berikut merupakan Rajah 13 bagi paparan analisis *Code-Document Table* dan *Code Cooccurrence Table* pada fasa ini.

Berdasarkan Rajah 13, dapat diperhatikan bahawa hubungan tema 'Populasi', 'Minat', 'Konteks' dan 'Bentuk' berlaku pada keseluruhan data. Kepekatan

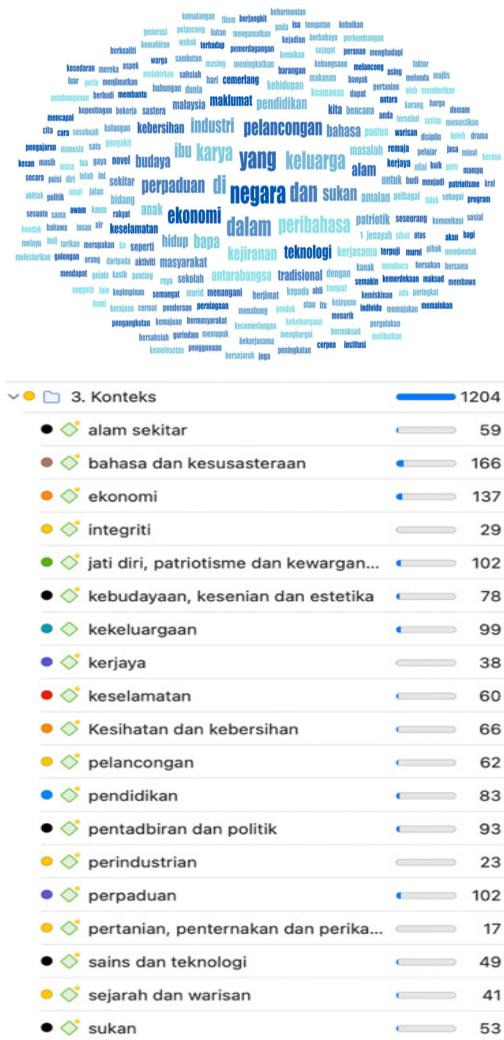
warna menunjukkan proses pengkodan banyak tertumpu pada data berkenaan. Keseluruhan warna hijau muda yang mendominasi warna yang lebih pekat menunjukkan proses pengkodan dilakukan secara sekata. Berikut dipaparkan pula Rajah 14 bagi analisis *Co-occurrence Table* pada fasa semakan.

		● 1. populasi ◇ 13 937	● 2. minat ◇ 15 978	● 3. Konteks ◇ 19 1204	● 4. Bentuk ◇ 16 752	Totals
Percubaan 2010	16 452	137	97	128	91	453
Percubaan 2011	17 462	138	102	134	94	468
Percubaan 2012	14 266	64	71	89	45	269
Percubaan 2013	15 273	60	72	95	46	273
Percubaan 2014	13 227	52	67	68	39	226
Percubaan 2015	14 224	43	61	77	43	224
Percubaan 2016	16 284	56	82	98	48	284
Percubaan 2017	16 256	50	61	93	52	256
Percubaan 2018	16 249	46	82	70	53	251
Percubaan 2019	17 265	57	76	82	53	268
Percubaan 2020	14 298	70	72	99	60	301
Percubaan Johor 2010-2020	10 203	54	47	63	39	203
Percubaan Kedah 2010-2020	11 208	48	54	68	38	208
Percubaan Kelantan 2010-2020	11 224	48	53	79	45	225
Percubaan Melaka 2010-2020	9 178	41	50	55	31	177
Percubaan MRSM 2010-2020	11 206	43	56	70	38	207
Percubaan Negeri 9 2010-2020	10 196	49	52	60	36	197
Percubaan Pahang 2010-2020	11 197	48	51	60	40	199
Percubaan Perak 2010-2020	11 219	54	60	70	39	223
Percubaan Perlis 2010-2020	9 151	32	32	57	34	155
Percubaan Pulau Pinang 2010-2020	11 197	50	54	56	37	197
Percubaan Sabah 2010-2020	8 174	41	48	57	31	177
Percubaan Sarawak 2010-2020	10 192	45	53	59	34	191
Percubaan SBP 2010-2020	11 205	48	58	55	44	205
Percubaan Selangor 2010-2020	10 190	49	45	61	36	191
Percubaan Terengganu 2010-2020	11 200	47	53	63	38	201
Percubaan WP 2010-2020	7 158	43	38	46	32	159
Percubaan Yik 2010-2020	9 196	41	49	68	38	196
Soalan SPM Sebenar	10 270	76	58	80	57	271
Soalan SPM Ulangan	11 290	80	67	77	65	289
Totals		1710	1821	2237	1376	7144

Rajah 13. Analisis *Code-Document Table* pada fasa semakan tema

Code Co-occurrence Table Analisis Kata Kunci Soalan SPM				
	● 1. populasi 937	● 2. minat 978	● 3. Konteks 1204	● 4. Bentuk 752
● 1. populasi	937	127	133	197
● 2. minat	127	978	155	280
● 3. Konteks	133	155	1204	123
● 4. Bentuk	197	280	123	752

Rajah 14. Analisis *Co-occurrence Table* pada fasa semakan



Rajah 19. Elemen utama serta jumlah kod dan subkod bagi tema 'Konteks'

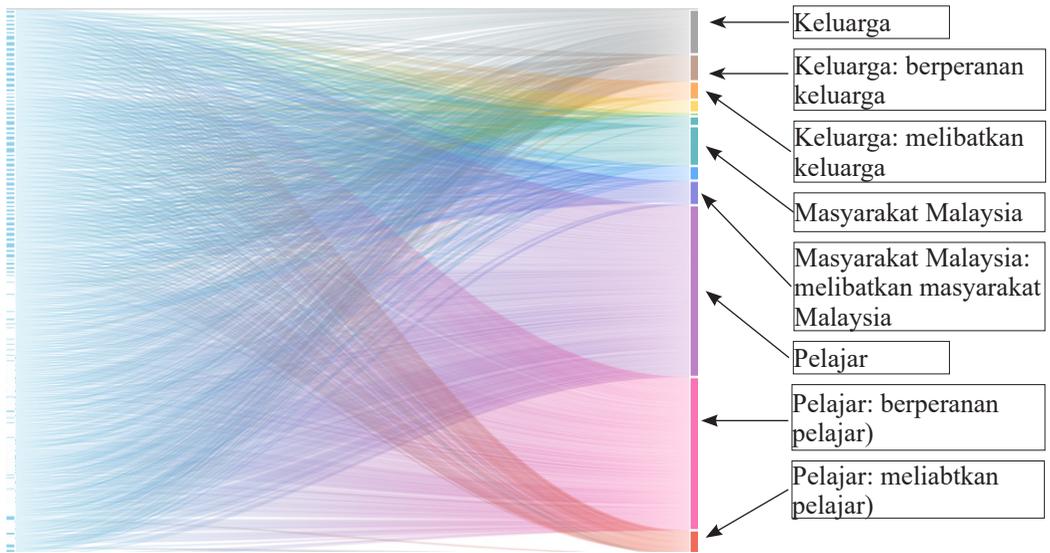
Dalam tema 'Konteks', elemen utama yang dapat diperhatikan ialah perkataan 'negara' diikuti dengan perkataan 'keluarga', 'ekonomi', 'perpaduan', 'pelancongan', 'peribahasa', 'karya', 'industri', 'sukan', 'budaya' dan sebagainya. Jumlah kod pada tema ini dibina sebanyak 19, iaitu 'alam sekitar', 'bahasa dan kesusasteraan', 'ekonomi', 'integriti', 'jati diri', 'patriotisme

dan kewarganegaraan', 'kebudayaan', 'kekeluargaan', 'kesenian dan estetika', 'kerjaya', 'keselamatan', 'kesihatan dan kebersihan', 'pelancongan', 'pendidikan', 'pentadbiran dan politik', 'perindustrian', 'perpaduan', 'pertanian', 'penternakan dan perikanan', 'sains dan teknologi', 'sejarah dan warisan' dan akhir sekali 'sukan'. Takrifan bagi tema 'Konteks' pula dapat dimaksudkan sebagai situasi atau keadaan sesuatu perkara yang sedang dibincangkan dalam soalan. Paparan seterusnya ialah Rajah 20 bagi elemen utama dalam tema 'Bentuk'.

Elemen utama dalam Tema 'Bentuk' dapat diperhatikan hadir dengan perkataan 'huraikan' diikuti oleh perkataan 'jelaskan', 'bincangkan', 'pendapat' dan 'tuliskan'. Jumlah kod yang terhasil daripada tema ini ialah sebanyak sembilan, iaitu 'ceramah', 'cerita', 'cerpen', 'laporan', 'pendapat', 'pidato', 'rencana', 'surat rasmi', 'syarahan' dan 'ucapan'. Enam subkod hanya hadir pada kod 'pendapat', iaitu 'berikan', 'bincangkan', 'cadangkan', 'huraikan', 'jelaskan' dan 'ulaskan'. Dalam tema ini, 'Bentuk' dapat ditakrifkan sebagai format bagi sesuatu penulisan karangan. Hasil daripada analisis dalam komponen 'Mengumpulkan' akan digunakan untuk analisis pada komponen 'Memikirkan'.

Komponen Memikirkan

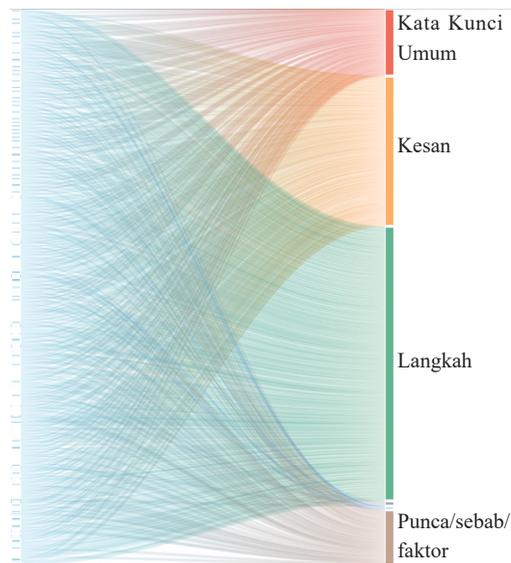
Menurut Friese (2014) komponen 'Memikirkan' merupakan proses memikirkan bagi mencari corak dan hubungan dalam data. Proses ini berlaku dengan mewujudkan beberapa pertanyaan seperti 'Bagaimanakah kita boleh mengintegrasikan pelbagai



Rajah 21. Paparan Sankey bagi menunjukkan subkod 'berperanan' sebagai 'Populasi' dan 'melibatkan Populasi tertentu'

kunci 'pengalaman'. Selain itu, terdapat kata kunci yang dinamakan sebagai 'kata kunci umum' tidak disenaraikan sebagai kata kunci utama kerana tidak dinyatakan kata kunci soalan secara jelas. Namun demikian, kata kunci jenis ini perlu diberi perhatian kerana jumlah data menunjukkan kejadian berlaku pada kekerapan yang agak tinggi. Berikut merupakan Rajah 22 bagi paparan Sankey yang menunjukkan fenomena pada tema 'Minat'.

Berdasarkan Rajah 22, kata kunci utama, iaitu 'langkah', 'kesan' dan 'punca' merupakan penentu kepada kehendak soalan. Hal ini kerana tema 'Minat' merupakan perkara yang penting untuk diberi penekanan. Dalam peranan asalnya, tema 'Minat' merupakan asas kepada fokus sesuatu penyelidikan. Kekeliruan pelajar bagi memahami kata kunci ini memungkinkan calon terkeluar daripada menjawab kehendak soalan.



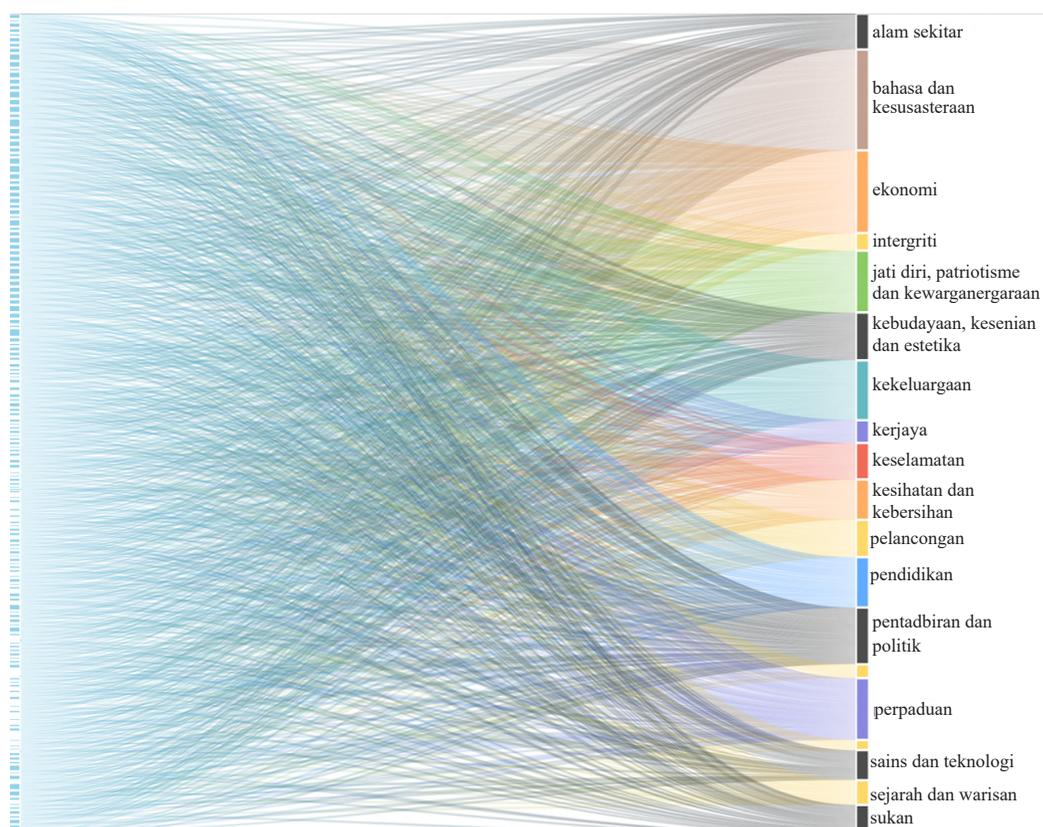
Rajah 22. Paparan Sankey bagi menunjukkan kata kunci utama dalam tema 'Minat'

Dalam tema 'Konteks', proses analisis kata kunci utama berbeza dengan tema lain. Hal ini kerana konteks sesuatu situasi hanya difahami dengan membaca pada ayat

yang penuh. Namun demikian, pengekodan yang berdasarkan tema dalam Kurikulum Standard Sekolah Menengah (KSSM) tingkatan empat dan lima mampu menjana beberapa kod yang berpotensi difahami sebagai konteks dalam soalan karangan. Walaupun KSSM hanya menyenaraikan 18 tema sahaja, satu tema tambahan dilihat wajar dimasukkan dalam tema Konteks, iaitu tema 'kekeluargaan'. Berikut merupakan Rajah 23 bagi paparan *Sankey* yang menunjukkan fenomena pada tema 'Konteks'.

Berdasarkan Rajah 23, dapat diperhatikan bahawa kata kunci 'bahasa dan kesusasteraan' yang diwakili dengan

warna coklat mendominasi tema 'Konteks'. Seterusnya, diikuti oleh kata kunci 'ekonomi' yang diwakili warna oren, kata kunci 'jati diri' yang diwakili warna hijau muda, kata kunci 'perpaduan' yang diwakili warna jingga, kata kunci 'kekeluargaan' yang diwakili warna hijau tua dan beberapa kata kunci lain yang dapat diperhatikan dalam paparan tersebut. Beberapa kata kunci yang terlalu rendah frekuensinya, iaitu 'pertanian' dan 'perindustrian' tidak dipaparkan maklumatnya. Hal ini berkaitan dengan sistem perisian ATLAS.ti yang telah dibataskan untuk tidak memaparkan kata kunci yang terlalu rendah frekuensinya.



Rajah 23. Paparan *Sankey* bagi menunjukkan kata kunci utama dalam tema 'Konteks'

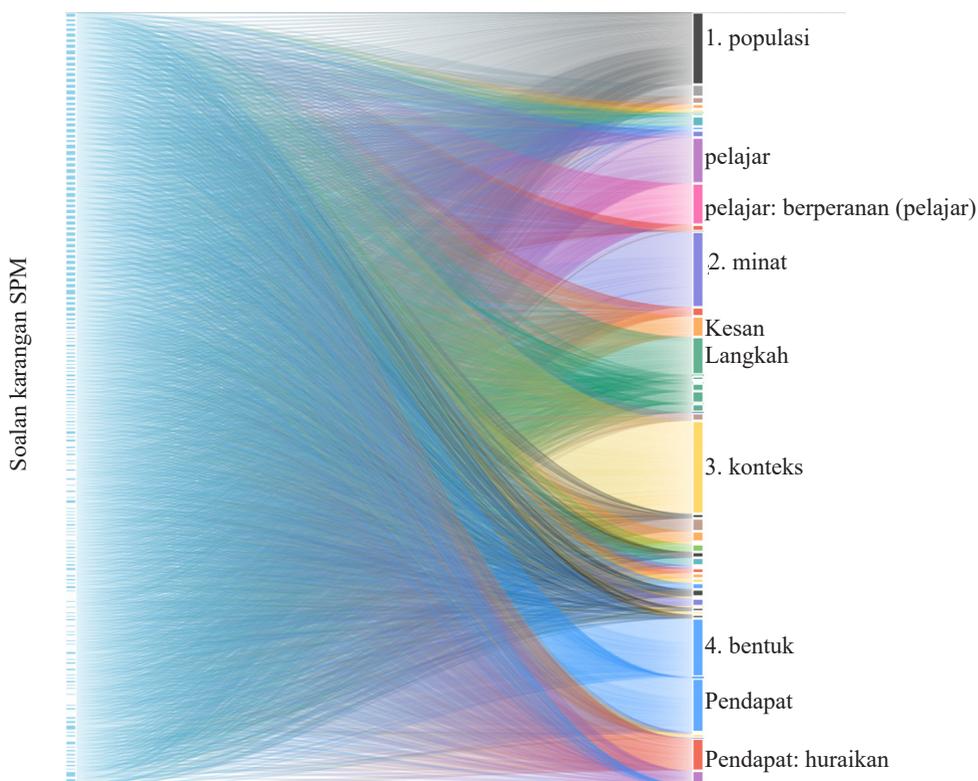
PERBINCANGAN

Hasil dapatan kajian dalam komponen 'Mengumpulkan' dan komponen 'Memikirkan', dapat diperhatikan bahawa soalan karangan SPM mempunyai beberapa tema dan kata kunci utama yang mampu dibina berasaskan PICO. Binaan soalan karangan yang berasaskan PICO ini menunjukkan tiga aspek utama, iaitu 'Populasi', 'Minat' dan 'Konteks' perlu hadir bagi memudahkan seseorang mentafsirkan kehendak soalan. Selaras dengan kenyataan Petticrew dan Roberts (2006), Mohamed Shaffril et al. (2020), Colas-Bravo et al. (2021), Ismail dan Sarudin (2023) dan beberapa lagi pengkaji lain bahawa formula soalan kajian, iaitu PICO dapat memudahkan proses carian tentang topik yang difokuskan dalam kajian. Analisis ini juga menunjukkan bahawa soalan karangan terbina melalui gabungan beberapa tema dan kata kunci utama ini. Berikut merupakan Rajah 24 paparan *Sankey* bagi menjelaskan gabungan kata kunci yang membina soalan karangan.

Berdasarkan Rajah 24, tema yang dibina daripada analisis ini ialah 'Populasi', 'Minat', 'Konteks' dan 'Bentuk'. Walaupun tema diasaskan melalui PICO, namun terdapat satu tema yang turut membina soalan karangan, iaitu tema 'Bentuk'. Hal ini menjadikan RQDT PICO diubah menjadi PICOB untuk diaplikasikan dalam analisis kertas soalan. Dalam Jalil (2016), tema 'Bentuk' yang dirujuk sebagai format penulisan merupakan antara elemen penting bagi proses menganalisis soalan karangan. Setiap tema pula dibina dengan kod yang dikenali dalam kajian ini sebagai kata

kunci utama. Analisis ATLAS.ti dalam Rajah 24 telah memaparkan kata kunci utama yang dominan membina soalan karangan. Dalam tema 'Populasi', kata kunci utama terdiri daripada populasi 'pelajar', iaitu 'berperanan sebagai pelajar'. Hal ini menunjukkan bahawa, soalan karangan SPM cenderung memberi tugas kepada calon untuk memberi pendapat sebagai seorang pelajar. Walaupun terdapat soalan yang meminta calon berperanan sebagai ahli keluarga seperti ibu bapa atau anggota masyarakat seperti pegawai kesihatan, dominasi populasi 'berperanan sebagai pelajar' yang agak besar, iaitu pada warna ungu dan merah jambu menunjukkan bahawa hampir setiap soalan menugaskan calon sebagai seorang pelajar.

Antara tema yang perlu diberi perhatian ialah tema 'Minat'. Hal ini kerana, tema ini merujuk kepada kehendak soalan atau fokus soalan. Dalam Jalil (2016), aspek ini diistilahkan sebagai 'arah soalan' manakala dalam Ismail dan Sarudin (2022), aspek ini dikenali sebagai 'fokus soalan'. Walaupun dalam kajian masing-masing menemukan tiga elemen penting dalam soalan karangan, namun hanya aspek 'Minat' yang menunjukkan persamaan dalam perbincangan masing-masing. Dalam tema ini, kata kunci utama 'kesan' dan 'langkah' dilihat mendominasi daripada kata kunci lain. Namun demikian, penelitian secara khusus dilakukan bagi mendapatkan perincian berkaitan kehendak atau fokus soalan. Penelitian ini dilakukan dengan meneliti rajah *Sankey* yang merujuk kepada tema 'Minat' sahaja.

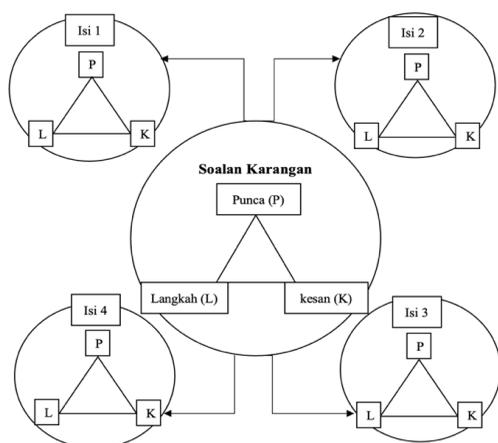


Rajah 24. Gabungan tema dan kata kunci utama yang membina soalan karangan

Paparan *Sankey* pada Rajah 22 menunjukkan bahawa soalan karangan dibina berdasarkan tiga kata kunci utama, iaitu 'langkah', 'kesan' dan 'punca'. Sebagai inovasi kepada guru dan pelajar, jika soalan menyatakan kata kunci 'kesan'. Calon dapat menjadikan kata kunci 'langkah' dan kata kunci 'punca' sebagai huraian dalam pendahuluan. Selain itu, setiap isi utama karangan juga berpotensi untuk dihuraikan berdasarkan kata kunci utama ini. Berikut merupakan Rajah 25 bagi menggambarkan dapatan ini.

Berdasarkan Rajah 25, soalan karangan berdasarkan analisis ini boleh terdiri daripada salah satu daripada tiga kata kunci utama, iaitu Punca (P), Langkah (L) atau Kesan (K).

Apabila kata kunci soalan memfokuskan pada L, calon akan menyediakan isi berkaitan L. Bagi menghuraikan L, calon dapat menggunakan rumus P, L dan K, iaitu menyoal semula isi L dengan soalan 'apakah punca L wajar dilaksanakan?', 'apakah langkah untuk melaksanakan L?' dan 'apakah kesan jika L dilaksanakan? jawapan calon tidak akan terkeluar daripada kehendak soalan kerana calon masih tetap menjawab dengan menyediakan isi penting berkaitan L. Huraian P, L dan K pula masih berkaitan L, iaitu menjelaskan L dari segi P, L dan K. Dalam Rajah 22, kata kunci yang merujuk 'kata kunci umum' dikecualikan kerana kata kunci ini merujuk kepada kata kunci yang kabur serta tidak dinyatakan



Rajah 25. Aplikasi kata kunci utama dalam penulisan karangan

dengan jelas. Namun demikian, latihan pada bentuk 'kata kunci umum' perlu diberi perhatian dalam pengajaran kerana analisis menunjukkan kata kunci ini juga mendominasi dalam data soalan karangan.

KESIMPULAN

Hasil daripada perbincangan dalam analisis ini, beberapa kata kunci utama dapat dianalisis dan diaplikasikan dalam penulisan karangan. Hasil analisis ini juga tidak membentuk soalan ramalan yang hanya terbatas penggunaannya pada tahun berikutnya. Sebaliknya, binaan kata kunci ini berpotensi menjana rumus atau strategi menulis bagi membantu pelajar agar lebih teliti dalam pemilihan soalan dan lebih fokus pada kehendak soalan. Dari sudut analisis data, penggunaan perisian ATLAS.ti membantu proses analisis dari segi pengekodan, pengumpulan data-data penting dan juga penulisan laporan.

Implikasi

Kata kunci utama yang dihasilkan bermotivasi untuk para pendidik mengaplikasikannya atau menghasilkan inovasi dalam pengajaran kemahiran menulis di sekolah. Analisis ini juga turut menyediakan panduan analisis ATLAS.ti secara sistematis dengan penggunaan model NCT Friese (2014) serta melalui perincian pada fasa-fasa TCA Friese et al. (2018). Panduan ini membolehkan pengguna perisian ATLAS.ti melakukan proses analisis dengan merujuk kepada prosedur yang dibina. Penggunaan prosedur analisis ATLAS.ti sistematis oleh penyelidik seterusnya diharapkan mampu menambah baik proses analisis berbantuan komputer dengan perkembangan bidang penyelidikan yang akan datang agar terus relevan diguna pakai.

Batasan

Dalam kajian ini, analisis difokuskan pada soalan karangan sahaja, iaitu melibatkan soalan karangan bahagian A dan bahagian B dalam Peperiksaan SPM Bahasa Melayu. Hal ini selaras dengan asas pembinaan tema dalam kajian ini, iaitu menggunakan Alat Pembinaan Soalan (RQDT), iaitu PICO. Analisis juga difokuskan pada penghasilan kata kunci utama pada tema 'Populasi', 'Minat', 'Konteks' dan 'Bentuk' tanpa membincangkan idea atau huraian penulisan murid berkaitan tema ini. Selain itu, soalan karangan dikumpulkan dari tahun 2010 hingga 2020. Pengumpulan soalan pada tahun berkenaan adalah memadai untuk analisis mencapai konsep ketepuan kod dalam kajian ini. Akhir sekali, analisis

ATLAS.ti yang digunakan hanya melibatkan fungsi serta paparan *networks*, *sankeys*, *word list/cloud*, *Code-Document Table* dan *Co-Occurrence Table*.

Cadangan Kajian Masa Depan

Beberapa perkara perlukan kajian selanjutnya bagi menampung batasan dalam kajian ini. Antaranya, analisis kata kunci utama berpotensi diperluas dengan menggunakan data karangan murid. Selain itu, perbincangan dalam tema 'konteks' dan 'bentuk' memerlukan kajian yang lebih terperinci kerana melibatkan pemahaman penyelidik terhadap konteks yang dinyatakan dalam soalan. Selain itu, tema 'kata kunci umum' perlu diperincikan agar kekaburan dalam kata kunci ini dapat diselesaikan melalui analisis yang mendalam. Analisis juga perlu diperluas dengan melihat konteks soalan dengan penulisan murid. Akhir sekali, analisis ATLAS.ti pada masa depan dicadangkan melibatkan kemas kini terkini aplikasi ini, iaitu analisis *AI Summaries*, *AI Coding* dan *Force-Directed Graph*.

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Theory-Practice Divide: Pre-service Teachers' Application of Pedagogical Knowledge During Teaching Practicum

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ABSTRACT

Good teacher education programmes ensure good resonance between the pedagogical knowledge learned at the university and the teaching practical. However, the literature shows a significant gap between these two elements. This theory-practice divide can dishearten and potentially jeopardise pre-service teachers' ability to remain in the field. This study investigated pre-service teachers' experiences applying pedagogical knowledge learned at the university to their teaching practicum. The research aims to answer two research questions: (i) what pedagogical knowledge learned at the university was useful or inadequate during teaching practicum, and (ii) what suggestions do they have to reduce the theory-practice divide? An exploratory qualitative research design was employed. The sample consisted of seven pre-service teachers who had recently completed their teaching practicum. The main data sources were an open-ended questionnaire and online interview sessions. Data analysis used a constant comparative method to look for emerging themes. Two themes emerged regarding the first research question: (i) Useful Pedagogical Knowledge and (ii) Inadequate Pedagogical Knowledge. For the former, three categories identified were (i) general teaching methods, (ii) research-based teaching findings, and (iii) sharing of teaching experiences and modelling by lecturers. In the latter, four categories coded were (i) classroom management, (ii) online classes, (iii) completing official forms and (iv) comprehensive lesson plan. Accordingly, the pre-service teachers provided three

suggestions to improve these adequacies.

The study's implications indicate meta-conversations among stakeholders for more holistic programmes and as starting grounds for curriculum reviews.

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INTRODUCTION

Teacher education curricula are designed to develop pre-service teachers' competencies to ease their transition as teachers. The teacher education curriculum generally consists of educational theory (pedagogical knowledge) and pedagogical practices (teaching practical). Teaching practical grants for pre-service teachers to connect what they have learned in their university courses (pedagogical knowledge) to real-life experiences in schools (O'Dea & Peralta, 2011). In ideal situations, educational theory should support and complement pedagogical practices. Over twenty years ago, Lampert and Ball (1998) expressed that educational theory and pedagogical practices in teacher education are "divided both physically and conceptually", and this divide, as Honan (2007) labels the binary of theory-practice, still exists (Yin, 2019).

The theory-practice divide fractures the seamless transition of theory to practice as pre-service teachers often cannot transfer and apply their pedagogical knowledge to gain the deemed real-life experiences in schools. This divide can dishearten and affect pre-service teachers' ability to sustain themselves in this profession (Buchanan & Olsen, 2018). Research findings have established that pre-service teachers' difficulties during teaching practicum include classroom management (Komolafe et al., 2020), assessing students' work (Simon et al., 2010), managing time, implementing innovative pedagogies (Takaoglu, 2017), and coping with the overall teaching workload (Mutlu, 2015).

Unless these difficulties are addressed, the quality of teacher education programmes may continue to deteriorate. One of the ways to address these difficulties is to listen to pre-service teachers about their teaching practicum experiences, especially about what they could and could not reconcile between the academic knowledge and the realities of teaching practicum (Allen & Wright, 2014). Ulvik and Smith (2011) expressed the value of listening to pre-service teachers' experiences.

The information obtained from accurate testimonials from pre-service teachers about their experiences during teaching practicum, particularly how university courses influenced their teaching practicum outcomes, can provide teacher educators with directions on what must and should be done to better prepare new graduates for the teaching workforce (Goh & Canrinus, 2019; Toe et al., 2020). In doing so, attempts are made to reduce this theory-practice divide for future cohorts (Yin, 2019). Therefore, this study addresses this theory-practice divide by asking pre-service teachers who had just completed their teaching practical two questions: (i) what pedagogical knowledge learned at the university was useful or inadequate during teaching practicum, and (ii) what suggestions do they have to reduce the theory-practice divide?

Literature Review

The teaching practical "typically constitutes the longest and most intensive exposure to the teaching profession experienced by prospective teachers" (Cohen et al., 2013,

p. 345). In an ideal scenario, pedagogical knowledge (university courses) is designed to scaffold pre-service teachers as they navigate during their teaching practicum situated in real classrooms. There should be a constant and flexible flow of feedback from theory to practice and vice versa. The convergence of pedagogical knowledge and practices provides optimal experiences to propel pre-service teachers' confidence in the profession.

However, this is not the case. This theory-practice divide is widened by the individuals (pre-service teachers, mentor teachers and university supervisors) in the tripartite partnership during teaching practicum (Buchanan, 2020; Lynch & Smith, 2012). Firstly, when these pre-service teachers go for their teaching practicum, they are expected to develop a teaching philosophy by transferring pedagogical knowledge to authentic teaching contexts with real students and conditions (Cochran-Smith & Lytle, 1999). Since these pre-service teachers have no exposure to the know-how about teaching, many of them enter the teaching practicum with an amalgam of their prior experiences and observations of their teachers, partly cultivated by their on-campus preparation and certain assumptions about the teaching environment where the teaching practicum takes place. However, this little concoction of experience and knowledge may not tally with the reality on the ground because these prior expectations underestimate the complexity of the teaching task (Atay, 2008). Many aspects of teaching – like which content is

difficult to teach or common misconceptions for a given topic need to be exposed to these pre-service teachers. Even if it is done during university courses, pre-service teachers have found it difficult to identify these findings from research to apply to their lessons (Abas, 2016). Thus, the divide between theory and practice often results in pre-service teachers' optimism dwindling when confronted with the realities and complexities in the classroom (Bainbridge, 2011; Haritos, 2004).

Secondly, guidance from mentor teachers is often insufficient because they lack the expertise to guide pre-service teachers on balancing what they have learned at the university and modifying these practices to be doable and sustainable in the classrooms (Li et al., 2021). Moreover, they are often too busy with their schedules. They may not have the time to address all pre-service teachers' concerns about the teaching and learning processes (Jaspers et al., 2014). Thus, the theory-practice divide becomes apparent when pre-service teachers try to put what they have learned in their university courses into their daily lessons during teaching practicum.

Thirdly, the theory-practice divide enlarges when university supervisors cannot meet pre-service teachers regularly during the teaching practical due to university commitments (Beck & Kosnik, 2002). Often, pre-service teachers feel they cannot depend on their university supervisors because they lack practical experience and do not fully understand their needs in school. This lack of confidence in university

supervisors prevents pre-service teachers from engaging in essential discussions about marrying theoretical knowledge with pedagogical practices (Olsen & Buchanan, 2017).

Holton et al. (1997) proposed the climate transfer framework that describes the factors that can widen or narrow the theory-practice divide. Transfer climate refers to the work environment that can affect the transfer of learning to the job (Holton et al., 1997). According to Holton et al. (1997), seven constructs represent the transfer climate, which are supervisor support, opportunity to use, peer support, supervisor sanctions, personal outcomes (positive), personal outcomes (negative) and resistance. Previous research indicated that transfer climate could significantly affect an individual's ability and motivation to transfer learning to the job (Holton et al., 1997; Tracey et al., 1995; Xiao, 1996).

In the educational context, the transfer climate framework could indicate whether the teachers/pre-service teachers can transfer the learning they gained from the university course to the job in schools (Andreasen et al., 2019; Khan & Nazir, 2017; Snoek & Volman, 2014). For example, each interaction with the school environment or another individual would have infinite outcomes. Assuming a pre-service teacher had a 'helicopter' mentor teacher that hovered over the pre-service teacher but constructively, all is well. In contrast, if the 'helicopter' mentor teacher insists on doing certain practices her way, this pre-service teacher may have to make difficult

choices. Holtan et al. (1997) described this as a supervisor's support or sanction. The former describes reinforcement and supports the use of learning on the job. In contrast, the latter describes negative feedback, active opposition, and no feedback. Therefore, transferring pre-service teachers' pedagogical knowledge gained in university courses to the teaching practicum depends on these factors.

Regarding personal outcomes, the pre-service teacher could follow what the mentor teacher requires or may stand up and choose a 'middle-ground' practice after negotiating with the mentor teacher. Personal outcomes may refer to pre-service teachers' self-efficacy and confidence gained from the pedagogical knowledge learned at university courses and the confidence to transfer that knowledge to the real-world context (Petre et al., 2022). These personal outcomes can be either positive or negative. For example, the pre-service teacher's decision would depend on his/her self-efficacy and confidence to communicate the decision to the mentor teacher. Suppose the pre-service teacher is confident about his/her theoretical knowledge and ability to translate that knowledge into practice; most likely, the pre-service teacher will negotiate with the mentor teacher, supporting their practices with theories, research findings, and artefacts to show how the assumed lesson would proceed and to gain approval of their mentor teacher.

As illustrated above, many options are available to pre-service teachers, and they are not equal and often lead to different

consequences. The theory-practice divide is legitimate and could diminish the quality of the teacher education programme. Therefore, it is pivotal for teacher educators to tap into the diversified experiences, practical knowledge, and interactions that pre-service teachers gain during their practicum (Kakazu & Kobayashi, 2022). When pre-service teachers undergo teaching practicals, their notion about what works and what does not work becomes clear because of their interactions with university supervisors, mentor teachers, peers, students, and others in the school environment (Yuan & Lee, 2014). These interactions, through meetings, classroom teachings, and discussions, influence pre-service teachers' outlook on teaching practicum. The pre-service teachers go into teaching practicals with only prior experiences and untested theories but come out of the teaching practicum with an improved notion about teaching and learning. This improved notion about teaching and learning is rich and valid information about what works and what does not, and in this lies the information on how to reduce the theory-practice divide.

METHODS

Research Design

This study adopted a basic qualitative research design to understand pre-service teachers' experiences applying their pedagogical knowledge learned at the university to their teaching practicum. Qualitative researchers are interested in understanding how people interpret their experiences, construct their worlds and what

meaning they attribute to their experiences (Merriam & Tisdell, 2015). Qualitative research explores 'how' things happen in their natural setting (Creswell & Poth, 2018).

Context

The postgraduate diploma of education programme is designed for graduates with non-education tertiary qualifications keen to become educators. For this study, a public university in Malaysia offered a postgraduate diploma in education programme with 13 specialisations. Students gained admission into the postgraduate diploma of education programme based on their bachelor's degree (specialisation) and after an interview. The diploma of education programme is divided into three semesters, and in the final semester, students do their nine-week teaching practical.

Participants

A purposive sampling technique was used in choosing the research participants to gain rich data on the phenomenon. Purposive sampling assumes that the researcher wants to discover, understand and gain insight into the phenomenon (Merriam & Tisdell, 2015). Since the authors were chemistry education educators, the inclusion criteria for the participants were that they enrolled in chemistry education specialisation and completed their teaching practicum. The rationale for these criteria was to gain specific insights into the chemistry content and pedagogical methods practised at the university and how these aspects affected the

pre-service chemistry teachers' pedagogical knowledge. This study focused on how pre-service teachers perceived their pedagogical knowledge as useful or inadequate during their teaching practicum. Furthermore, the research intended to collect baseline data for curriculum review purposes in the future.

Thus, all the sixteen pre-service chemistry teachers who had just completed their nine-week teaching practicals were invited to participate in this study. In line with research ethics, the participants were informed about the purpose of the research and its voluntary basis. It was made clear that the questionnaire was not part of the examination, and their responses would have no effect on the results of the teaching practicum. They were also reassured that all data would be handled confidentially. Only seven pre-service teachers responded and were willing to be interviewed. Informed consent was obtained from these participants. In the context of this study, the participants were identified as S1 until S7.

Data Collection

An open-ended questionnaire and online interview sessions were the main data sources. The open-ended questionnaire contained eight questions about pre-service teachers' experiences during their teaching practicum, primarily if the pedagogical knowledge (or university courses) they had learned at the university were (not) useful during their teaching practicum. For example, the question, "What university courses do you think helped you with your teaching practicum? Why do you say so?"

Two experts reviewed the questionnaire to ensure content validity. The questionnaire was then administered through WhatsApp. The pre-service teachers were asked to answer the questions and email their responses. The interview sessions were held via telephone to clarify any ambiguous responses in the questionnaire. These conversations were audiotaped. The administration of the questionnaire through WhatsApp and telephone interviews was to avoid close contact with the participants due to the COVID-19 pandemic.

Data Analysis

Data analysis was organised using Miles and Huberman's (1994) three-step technique. The interview data were transcribed verbatim. Together with the responses from the questionnaires, the data analysis process began. The transcripts were carefully read with several iterations. The researchers took a descriptive position by being open to codes and recurring patterns in the data by refraining from identifying important categories prematurely but allowing the categories to emerge (Patton, 2002). As suggested by Corbin and Strauss (1990), the open coding strategy involved multiple readings of data from the interview transcripts and participants' answers to the open-ended questionnaire. The codes were organised into categories through a constant comparative method. A matrix was built, and relevant categories were placed under the appropriate themes. This process involved constant reading, re-reading, highlighting, coding, and interpretation of the data.

Two themes emerged for the first research question. There were Useful Pedagogical Knowledge (University Course) and Inadequate Pedagogical Knowledge (University Course). For the former, three categories were identified and for the latter, four categories. Correspondingly, there were three themes for the second research question.

Member checking and peer review procedures were employed to ensure the data's validity in this study. The transcribed data and a summary of the interview findings were shared with the participants, seeking feedback to confirm that the data accurately reflects their perspectives. The interview data and analysis were also deliberated with other researchers. This step encompassed a peer review process to validate the interpretations and conclusions.

RESULTS

The results are organised based on the research questions. For the first research question, "What pedagogical knowledge learned at the university was useful or inadequate during teaching practicum," there were two themes: (i) Useful Pedagogical Knowledge (University Courses), and (ii) Inadequate Pedagogical Knowledge (University Courses). For the second research question, "What suggestions do they (pre-service teachers) have to reduce the theory-practice divide," the emerging themes corresponded with the categories of Inadequate Pedagogical Knowledge (University Courses). These will be discussed in the following sections.

Useful Pedagogical Knowledge (University Courses)

The pre-service teachers highlighted three categories of pedagogical knowledge (university courses) that they found useful during their teaching practicum. They were (i) general teaching methods (e.g., lesson plans and assessment strategies), (ii) research-based teaching findings, and (iii) sharing of teaching experiences and modelling by lecturers.

General Teaching Methods (e.g., lesson plans and assessment strategies).

The pre-service teachers expressed how university course content on developing lesson plans had helped them tremendously during their teaching practicum. One pre-service teacher stated that the lesson plans during university courses were painstakingly developed, with various activities encouraging active learning. These were not the norm in schools. The pre-service teacher claimed that if she had relied on the mentor teacher, her lesson plans would predominantly be chalk-and-talk and written work to elicit student understanding. She added that her university courses had not favoured paper-and-pencil class activities as these tasks did not encourage active participation from students and often led to boredom among students.

"At the university, we develop activities to encourage active learning... instead of using paper-and-pencil to test understanding, students get bored." (S1)

Lesson plans taught at the university helped cater to “students of different (ability) levels and, analyse and arrange the contents in a logical and sound manner” (S2). The pre-service teachers claimed they could carry out the lesson efficiently with better-organised lesson plans. To stress the importance of lesson plans, one pre-service teacher shared her experience when she did not have time to complete a lesson plan and found it difficult to conduct her lesson.

“I had tried teaching without a lesson plan at the beginning of LM (teaching practical), and it was not smooth at all.” (S3)

The pre-service teachers claimed that the pedagogical knowledge learned on lesson plans at the university allowed them to achieve the learning objectives during their practicum.

“Planning/designing of chemistry lessons requires attention, especially to activities in the content development area so that learning objectives of the day are met.” (S4)

Another aspect of pedagogical knowledge that these pre-service teachers found helpful was classroom assessment. They felt that learning about the assessment concepts allowed them to know if their students had achieved the learning outcomes for their lessons.

“Chemistry education courses provide me with an opportunity to learn about

what we can do more for students through... formative and continuous assessment.” (S1)

“It is very important to help the teacher to know whether the students have reached the LO (learning outcomes). Sometimes, when you teach them something, it looks like they understand. But after doing some exercises, the problem can be detected ... like formative assessment” (S3)

The concept of formative assessment taught in university was useful in their teaching practicum, especially to detect any learning difficulties and help students achieve their learning outcomes.

Research-based Teaching Findings. The students were exposed to various aspects of research-based teaching findings in their university courses. One example was using content representations (CoRes; Hume & Berry, 2011). CoRes helped pre-service teachers develop their pedagogical content knowledge (PCK) when engaging and constructing their CoRes.

“CoRes helped with the analysis of content and what and how we should prepare our lesson plan.” (S2)

“I think everything that I learned during class is very helpful. ... I was introduced to lesson plans, chunking method of chemistry syllabus, ... the CoRe method.” (S6)

Similarly, the introduction and discussions on research findings of common misconceptions in chemistry and the difficulty in learning chemistry because of the chemistry triplet model proposed by Johnstone (1993) seemed to help them in their teaching practicum.

“Aspects of the course content that are helpful in conducting my teaching practical are the misconception... the triplet model.” (S7).

Sharing of Teaching Experiences and Modelling by Lecturers. Pre-service teachers found useful practices such as the sharing of teaching experiences by their lecturers.

“Some of the sharing from the lecturer, whether lecturer’s personal or experiences from previous batches on how to approach certain topics are useful... we can mimic certain behaviour and not be taken aback when we experience a similar situation.” (S2)

When asked to elaborate, S2 stated that the lecturer mentioned that their seniors had problems when dealing with difficult school students and advised them on how to handle and motivate them.

The pre-service teachers were also appreciative when teacher educators modelled constructivist classrooms during their university courses. They found that the lecturers did not just lecture but provided space and resources to engage in group

work in a collaborative environment. These learning experiences, active and collaborative learning that lecturers modelled, were useful during their teaching practicum.

“Collaboration between classmates enable me to find out more activities, and we can discuss with Dr” (S1)

“Having this experience, I think it is important because it gives students opportunities to talk and discuss their ideas... just as in the lecture, the lecturer can’t do all the thinking for us. Very beneficial.” (S4)

Inadequate Pedagogical Knowledge (University Courses)

The pre-service teachers elaborated four categories on the pedagogical knowledge (university courses) that were inadequate: (i) classroom management, (ii) online classes, (iii) completing official forms and school-level directives/paperwork and (iv) comprehensive lesson plan.

Classroom Management. The pre-service teachers expressed that the pedagogical knowledge they learned at the university was inadequate in controlling and managing classroom students.

“I had trouble figuring out how to control the class well because I was less exposed to the appropriate ways or techniques in the course.” (S5)

“... class management techniques should be emphasised in this course. Ways to get the attention of students, especially those who are less interested in learning.” (S6)

The pre-service teachers claimed they were not inadequately exposed to classroom management techniques and approaches, especially for students less interested in learning.

Online Classes. Many schools were doing online classes as these pre-service teachers conducted their teaching practicum during the COVID-19 pandemic. Thus, pre-service teachers felt that the university courses did not adequately prepare them for the challenges of online classes.

“I think the greatest challenge for me was to conduct the online class. It was very different with face-to-face class.” (S3)

“I have full attendance ... yet I feel I am speaking to the screen ... group activities cannot be done, so we can only use PowerPoint... what can we do...” (S1)

“To develop practical skills is difficult during online teaching... so difficult and frustrating.” (S4)

The pre-service teachers mentioned lacking various teaching strategies and mainly used PowerPoint presentations during online classes.

Completing Official Forms and School-level Directives/paperwork. Another challenge that these students encountered during their teaching practicum was concerning documents and record-keeping. The pre-service teachers claimed that paperwork or administrative documentation had a specific format to adhere to, and each school had guidelines for completing them.

“Aspects that I encounter during my practicum is the *Pentaksiran Bilik Darjah* or PBD (classroom assessment), where I was asked by my mentor teacher to fill in the form for subject science of Form 1 students. Since I never done it before, I hesitated whether I did it correctly or not while giving the marks for students.” (S7)

“The university courses would not be able to prepare us with this (documents) because it is different ways done by different schools. Each has its own method, so it is difficult....” (S5)

Comprehensive Lesson Plan. Though all pre-service teachers underwent the same university courses, their experiences differed. For example, one of the pre-service teachers claimed that writing a comprehensive lesson plan as taught in university courses was unnecessary. She felt these comprehensive lesson plans do not necessarily translate to better student learning.

“The preparation of the lesson plan does not have to be too complicated but enough to achieve the learning objectives. This is because too many activities or plans do not determine the level of understanding of students.” (S5)

Due to the overwhelming workload (teaching and documentation), S5 believed the lesson plan should not be too complicated. When asked what she meant by this statement, S5 stated that sometimes using the traditional chalk-and-talk method seemed better for students' understanding and achieving the learning objectives.

“I have tried with group work, but students talk and do nothing much, so the learning outcomes are not achieved. So, my guru pembimbing (mentor teacher) said just to use PowerPoint, and I think I can do the lesson much better.” (S5)

It is to be noted that S5's comments about comprehensive lesson plans were antithetical to what her peers had stated.

Suggestions to overcome Inadequacies in Pedagogical Knowledge (University Courses)

The pre-service teachers provided suggestions for the inadequacies in pedagogical knowledge during their teaching practicum. Three themes emerged for suggestions to improve the inadequacies: (i) enhancing classroom management training, (ii) improving preparation for online

classes, and (3) addressing documentation challenges.

Enhancing Classroom Management Training. Having access to a real-world classroom is impossible. Still, one of the pre-service teachers suggested that university courses incorporate projects or case studies to allow pre-service teachers to work with a small group of students (outside of school hours). By doing so, the pre-service teachers can use these experiences for their teaching practicum.

“I would like to suggest that novice teachers should do a project on how to tackle a chemistry learning problem by applying it to a group of students. This may help novice teachers to realise the real situation of students' struggle in learning certain topics or concepts in chemistry.” (S7)

Improving Preparation for Online Classes. As per their course structure, not one course is fully dedicated to online teaching methods. Thus, the pre-service teachers suggested creating at least one course on conducting online classes.

“To create one course that only taught how to conduct an efficient online class.” (S3)

“Teach how to design online courses so that we are sure that students would engage.” (S1)

Addressing Documentation Challenges.

To overcome the documentation issues, the pre-service teachers suggested that teacher educators compile samples of these forms and discuss them during lectures or invite schoolteachers to share their experiences on document filing.

“Lecturers can meet teachers and ask about these forms; so, they had them to discuss with us.” (S4)

“May be invite teachers to talk about these forms....” (S1)

According to them, these suggestions could help them during their teaching practicum.

DISCUSSION

This study aimed to gain information on what pedagogical knowledge studied during the university courses was useful and what was inadequate. Alignment between their pedagogical knowledge and teaching practicum has proven to be effective in the success of teacher education programmes. Preparing lesson plans was voiced as an important component of their university courses that were inevitably also used in schools. The pre-service teachers had mentioned that they could plan for more constructivist pedagogies compared to what was popularly done in schools (Lim et al., 2018). Due to the tensions and pressure of completing the syllabus and preparing students for examinations, schoolteachers opted for more teacher-centred lessons.

Several pre-service teachers in this study had observed this discrepancy in student/teacher-centred instruction but persisted in implementing more student-centred activities. They elaborated that students gained a better understanding with more student-centred activities. The pre-service teachers persevered with lesson plans that were student-centred. Teacher education programmes should encourage pre-service teachers to develop “habits and skills necessary for the ongoing study of teaching in the company of colleagues” (Feiman-Nemser, 2001, p. 45). It is known as growth competency, which is difficult to acquire because it requires pre-service teachers to observe, interpret and analyse their classroom experiences. The question is how well teacher education programmes address these habits and skills.

Despite this study’s small number of participants, one pre-service teacher seemed to have buckled under pressure and opted for more teacher-centred pedagogy. She had claimed that using constructivist pedagogies was “too complicated”, so her “mentor teacher said to use PowerPoint”. She claimed that her lessons were much better. This situation is the danger that Clift and Brady (2009) warned about: theoretical ideas of an ideal learning environment can be washed out when pre-service teachers are socialised into the workforce. They may “not base practice on theories and recommended practices from the teacher education programs” (p. 331). School teachers have been teaching with challenges such as classroom management and time

constraints. Still, university lecturers always lecture in a sterile environment, making it easy to conduct constructivist pedagogies (Toe et al., 2020). These environments (university versus school) of teaching and learning are also physically distinct and distant, making it difficult for pre-service teachers to consolidate these two worlds. The common way to reduce the divide would involve mentoring teachers and building authentic partnerships between pre-service teachers, mentor teachers, and university lecturers.

Literature has shown that even though these partnerships are effective, they are unsustainable (El Masry & Mohd Saad, 2017; Guise, 2013; Yamagata-Lynch & Smaldino, 2007). Since pre-service teachers in this study had voiced that teacher educators' experiences did help them during their teaching practical - it could be suggested that teacher educators go to schools and experience what it is to teach in an authentic teaching and learning environment (Flessner, 2012). This process does not have to be done annually because the teacher educators can sustain the experiences for longer. The knowledge and experiences that teacher educators gain through their interactions with school personnel, teachers and students could be shared with their pre-service teachers. Gaining these experiences first-hand equips teacher educators with the knowledge to facilitate pre-service teachers to consolidate their knowledge-practice divide.

The divide between pedagogical knowledge and teaching practicum in

classroom management is prevalent for all pre-service teachers in this study. Even though these issues have been discussed theoretically, the pre-service teachers could not draw upon their knowledge to find solutions concerning classroom management during their teaching practicum. Classroom management issues are multifaceted (Sieberer-Nagler, 2015). For example, Wiseman and Hunt (2008) mentioned that discipline and punishment of students in the classrooms are not synonymous as there are four things that discipline can do to enhance engagement that punishment cannot. These nitty-gritty aspects of classroom management are overwhelming for pre-service teachers when learning how to teach (Junker et al., 2021). Pre-service teachers are unsure what and how to draw upon their vast educational theory for specific situations that arise in schools.

Nevertheless, we know greater emphasis should be placed on classroom management because poorly managed classes lead to student discipline problems and can inhibit effective instructional approaches (Darling-Hammond et al., 2020). Buchanan (2017) recommended that teacher educators use these divides as "pedagogical objects" rather than minimise the divide. The discrepancies, conflicting ideas, and disconnections between educational theory and pedagogical practices can be used as pedagogical tools. Teacher educators can use these divides as contextual learning, allowing pre-service teachers to explore the various approaches for bridging, manoeuvring,

and adapting conflicting ideas and beliefs. The experiences of exploring the divides of classroom management among pre-service teachers can be more meaningful if mentoring teachers are invited to participate. Pre-service teachers can be more confident and motivated to act when placed in the school environment by explicitly engaging with both sides of the coin.

When the pre-service teachers were asked to provide suggestions on how to reduce the theory-practice divide, one pre-service teacher stated that pedagogical knowledge learned at the university did not prepare her to do administrative work as it is unique to each school and suggested that schoolteachers should be invited during their university courses to help them gain that knowledge. Though it could be seen as a good suggestion, pre-service teachers prefer the transmission mode of training. In other words, do pre-service teachers prefer to learn from experts rather than take the initiative to learn during their school apprenticeship (Safari & Rashidi, 2015)? Teacher educators must ensure pre-service teachers understand that transmission approaches do not allow them to exhibit agency. Pre-service teachers should be educated to be thoughtful, intellectual, and innovative educators to be agentic change. For example, the unanticipated pandemic has caused the content of teacher education programmes to be inferior in online learning. The pre-service teachers expressed inadequacy in this aspect. Thus, pre-service teachers should be taught the skills of being flexible, agile, and competent

to face challenges and complicated school workloads more efficiently.

CONCLUSION

The research found that even with a few pre-service teachers, their input about the pedagogical knowledge learned at the university that was (un)useful for their teaching practicum varied widely. Since the theory-practice gap in teacher education is multifaceted and complex, unified efforts of educational administrators and school and university personnel are required to diminish the gap.

Thus, future research should continue to explore the multifaceted nature of the theory-practice gap in teacher education. Expanding the participant pool from the bottom up can provide a more nuanced understanding of the challenges and opportunities for reducing this gap. This study highlights the importance of assembling and analysing pre-service teachers' experiences during their teaching practicum as it can inform curriculum reviews. Asking pre-service teachers explicitly what pedagogical knowledge they found useful or inadequate as they complete their teaching practicum is one way for teacher educators to gain insights into the quality of their teacher education programme. Using their feedback, teacher educators can think of ways to align their university courses with school experiences. Designing a curriculum for teacher education programmes that considers everyone's voices is more likely to be comprehensive and holistic.

Limitation and Recommendation

The findings provide useful insights into the theory-practice divide. However, it is limited to only seven participants from a chemistry major. Future research needs to involve a more comprehensive coverage of participants, including various other subject majors, to gain in-depth descriptions of the cause and potential issues that might induce the existence of this theory-practice divide.

Given the wide variation in pre-service teachers' perceptions of the pedagogical knowledge learned at the university, it is recommended that a more deliberate effort to align the university coursework with the demands of teaching practicum. The obtained information can be systematically reviewed and incorporated into future university courses. Teacher educators then provide the appropriate scaffolding for pre-service teachers to transition to their teaching practicum. Knowing gaps in the theory-practice divide may provide insights for teacher educators to prepare their future cohorts better. The reduction of the theory-practice gap can lead to quality teacher education.

It is also recommended that more effort be made to redesign the education programme to move away from completing their university courses entirely before embarking on their teaching practicum. The current structure, where theoretical knowledge and pedagogical practices are done sequentially, does not give pre-service teachers a venue to think about their teaching practicum experiences, discuss these experiences with their peers, get

scaffolding from lecturers and try alternative methods in following lessons.

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Importance-Performance Analysis (IPA) Approach of Marine Park Tourism Destinations: A Case Study of Kapas Island Marine Park, Terengganu

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ABSTRACT

Tourism in the marine park is vital to tourist satisfaction. Tourism and sustainability must be balanced in sensitive regions like marine parks. Tourist feedback helps balance and sustain marine park management. Kapas Island Marine Park (KIMP) in Terengganu receives a high number of tourists annually. The resources and the tourist experience may be adversely affected by excessive utilisation of marine resources. It may have long-term effects on the travel industry. This research has adopted an Importance-Performance Analysis (IPA) to scrutinise how visitors view the execution of 23 attributes of KIMP. The objective of this study is to show that various tourism attributes affect tourist satisfaction, as well as to discover the satisfaction- and dissatisfaction-generating attributes that may be found in the marine tourism experience. In addition, this research discusses how IPA may be used to influence future visitor research and management at marine park sites. The findings of this research were obtained by a questionnaire survey of 310 visitors to the KIMP during May and June 2022. The results are displayed on a grid with four quadrants; facilities are available to ensure the safety and security of the visitors (Quadrant One); attributes are already providing good service, and therefore, performance must be

sustained (Quadrant Two); the fundamental amenities or necessities as seen by visitors (Quadrant Three); attributes that have a low significance score but obtained a high-performance score (Quadrant Four). These findings potentially provide a reference for thorough development strategies for a marine park tourism destination.

Keywords: Importance-Performance Analysis, marine park, tourism, visitor experience, satisfaction, Kapas Island

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INTRODUCTION

Tourism destinations offer a wide range of unique tourism experiences and crucial elements in promoting a country (Ling et al., 2022). Tourism is a form of service and experience, and these are attributed to visitor satisfaction. Due to the increasing competitiveness in the tourist industry, the importance of investigating tourism experiences has increased (Sharma & Nayak, 2019). Businesses in the tourism industry that excel in providing outstanding client experiences stand to enjoy long-term competitive benefits (J. H. Kim, 2017). Additionally, satisfaction is a complex human phenomenon that encompasses the intricate cognitive, emotional, and unresearched physiological, psychological, and physiological aspects of the vacation spot. Visitor pleasure is a culmination of emotional states brought on by engaging in tourism experiences.

Numerous scholars have studied the relationship between satisfying tourist experiences and visitor contentment. Notably, Simon et al. (2020) found that tourists to Kota Kinabalu, Sabah, reported higher levels of satisfaction, perhaps as a result of the city's attractive attractions and the natural ambience of its tourist destinations. Similar research was conducted by Ziegler et al. (2012) on wildlife tourism on the Mexican island of Isla Holbox, revealing the impact of deceptive advertising, traffic congestion, tour fees, and inadequate information on visitor satisfaction. In the context of adventure tourism in India's mountainous Uttarakhand region, Bagri and

Devkant (2015) emphasised the significance of visitor satisfaction with destination features. The study identified important characteristics, enabling management to adjust their focus to guarantee the highest visitor pleasure.

Marine parks hold a distinct status as a favoured tourism destination across various nations. While many countries designate marine parks for conservation purposes and biological significance, they also serve as prominent attractions for tourists, particularly in tropical countries. Ibrahim et al. (2023) mentioned that the government and non-government organisations must prioritise biodiversity conservation according to Malaysia's National Policy on Biological Diversity. The Malaysian government relies extensively on marine tourism as a source of revenue; hence, it has become one of the tourism sectors with the largest growth (Adam et al., 2019). Tourists prefer visiting marine protected for their unique habitats and stunning scenery, making them significant ecotourism attractions (F. Chen et al., 2020). Leh et al. (2021) stated that the tourism sector strongly impacts the Gross Domestic Product (GDP) of many nations worldwide, namely Malaysia.

The demand from the tourism sector has directly or indirectly spurred the necessity for facilities and services within marine environments. Providing amenities and tourist services is pivotal in shaping the inclusive traveller experience (Kumar et al., 2023). The correlation between visitor experiences and their support for marine

park conservation has been extensively explored in previous studies (Nian et al., 2019). Positive experiences often lead to favourable attitudes towards conservation endeavours (Eriksson et al., 2019). The demand for marine tourism has necessitated the identification of specific types of facilities and services. It serves the purpose of averting unbridled development without adequate planning information. In sensitive marine park areas, unplanned development can potentially contribute to long-term adverse effects (Hassan et al., 2022). Moreover, it is imperative to ascertain the efficacy of a given tourism product in meeting visitors' needs while within the marine park. It can assist tourism operators in planning and managing their products more cost-effectively (Higham et al., 2021).

One of the most popular applied methodologies in assessing tourism services is the Importance-Performance Analysis (IPA). Applying IPA studies provides a means by which visitors to a given geographical site can judiciously gauge the perceived significance attributed to various attributes inherent to their selected tourism destination. Subsequently, these visitors undertake an evaluative assessment of the actual performance exhibited by these identified attributes, thus establishing a comprehensive framework for analysis (Coghlan, 2012). Boley et al. (2017) suggested that researchers can use IPA to dynamically discover discrepancies between stakeholders' emphasising the value of a given characteristic destination's reality performance in managing that attribute. Lai

and Hitchcock (2015) justify that the IPA technique is a common way to figure out which crucial parts should be emphasised to improve visitor satisfaction.

Due to its simplicity and straightforward results, the IPA technique has been widely used in many different fields for analysing the food industry (Hong et al., 2020), healthcare services (Lee, 2015), adventure tourism (Bagri & Devkant, 2015), city tourism (Irwana et al., 2015; Sasithornwetchakul & Choibamroong, 2019), education (McLeay et al., 2015) and wildlife tourism (Nguyen et al., 2021; Ziegler et al., 2012). Nonetheless, the current research focusing on visitor contentment with the tourism encounter in marine parks remains relatively limited. In most marine parks, most studies have focused extensively on life sciences research, such as ecology and fisheries, alongside investigations into physical elements like water quality. This study employs an IPA approach within a marine park setting to determine visitor satisfaction assessments on the importance and satisfaction of KIMP's tourism products. In addition, this study also discerns the influence of diverse tourism attributes on visitor contentment while identifying the factors that contribute to both satisfaction and dissatisfaction within the marine tourism experience.

LITERATURE REVIEW

Visitor Satisfaction and Tourism Experiences

Generally, the long-term survival of nature-based tourism experiences depends on assessing visitor satisfaction, especially

in marine tourism areas. According to Marasinghe et al. (2021), visitor satisfaction surveys are frequently used to acquire comprehensive data on a destination's visitors' characteristics, preferences, expectations, and experiences. Chan and Saikim (2022) revealed that tourists' motivations and expectations are related to aspects of the ecotourism experience. Pratiwi et al. (2022) strongly agree that visitors will share their tourism experience and revisit the destination if satisfaction is achieved.

According to Marasinghe et al. (2021), the definition of satisfaction can be described by the contrast between a visitor's expectation of the destination (Importance) and the experience that yields the visitor's level of satisfaction (Performance). These indicators are usually used for measuring visitor experience or service quality. The tourist's views of these attributes in a place combine to build an amalgamated sense of place, influencing individuals' overall pleasure (Hong et al., 2020). Many tourism studies used satisfaction with certain attributes to represent choice and preferences (Mohamed et al., 2021). Furthermore, the importance of attributes gained via experience may not be equal. Hence, a destination's feature may have various meanings for different tourists and contribute differently to total pleasure.

Consequently, determining the features of a product or service most relevant to overall quality, as perceived by customers, is crucial to tourism marketing and management (Taplin, 2012). The economic

and social effects of COVID-19 outbreaks have been extremely detrimental, and the tourism sector also has been severely affected. Particularly in the context of tourism, it has altered commercial practises, social interactions, and human behaviour (Kele et al., 2020). After the COVID-19 outbreaks, visitors' satisfaction is crucial for the tourism sector. Pai et al. (2020) mentioned that visitors' satisfaction is essential in predicting behavioural intention. Satisfaction is a critical concern in the tourism industry since it may influence its achievements (Sapari et al., 2013).

Currently, Malaysia has maintained 48 state-level marine parks. KIMP is one of the marine parks that was established recently to boost the tourism industry further in the eastern coastal areas of the peninsula. When resources in marine parks are over-utilised and have the potential to affect visitor experiences, conflicts arise between conservation and marine ecotourism developments. Visitor experiences significantly influence the level of visitor satisfaction. The long-term viability of the marine tourism industry depends on how enjoyable it is for visitors. Simpson et al. (2020) mention that the satisfaction of visitors indicates the quality of products or services provided, as such tourism experiences should live up to visitors' expectations. Arnberger et al. (2023) mentioned that successfully managing marine park tourism necessitates a dual focus: appraising the quality of visitor experiences and protecting the natural environment.

Importance Performance Analysis

The IPA is an important method designed for marketing but has since been widely used in a variety of industries. Martilla and James (1977) initially established the IPA approach, which has been frequently utilised in tourism studies as an essential indicator of visitors’ satisfaction levels in domestic and international research. Feng et al. (2014) justify that the IPA is a prevalent phenomenon since it is simple to use, and the outcomes are easy to understand. It is about how satisfied the tourists are with a service’s performance expectations (Lai & Hitchcock, 2015).

Martilla and James (1977) have suggested that in applying the IPA method to interpret consumer satisfaction, organisations should consider both attribute priority and attribute execution. Till now, tourism research has been using the approach to assess visitors’ satisfaction with places or tourism services. According to Ortigueira-Sánchez et al. (2017), IPA has been successfully applied in several customer satisfaction surveys. Hong et al. (2020) have mentioned that tourist satisfaction is an important marketing tool in the tourism industry, and it is used to develop marketing strategies. The quadrants are characterised as follows:

- i. Quadrant One: Concentrate here: low performance and high importance
- ii. Quadrant Two: Keep up the good work: high performance and high importance
- iii. Quadrant Three: Low priority: low performance and low importance

- iv. Quadrant Four: Possible overkill: high performance and low importance

The four quadrants in the IPA (Figure 1) contain the attributes that could be utilised as the source for exploring strategies for marketing marine tourism products.

<p>QUADRANT ONE Concentrate Here High Importance, Low Performance</p>	<p>QUADRANT TWO Keep up the good work High Importance, High Performance</p>
<p>QUADRANT THREE Low Priority Low Importance, Low Performance</p>	<p>QUADRANT FOUR Possible Overkill Low Importance, High Importance</p>

Figure 1. The IPA grid by Martilla and James (1977)

The components in the upper left corner (Quadrant One) are rated very important, but the level of satisfaction is low. The attributes included in this quadrant should be highlighted since they are significant but do not reach the standard of visitor satisfaction. The attributes in the upper right corner (Quadrant Two) are hugely noteworthy and highly satisfying. It clearly shows that the attributes in this quadrant must keep functioning smoothly. The importance of the left bottom component (Quadrant Three) is low, and satisfaction is poor. The attributes in this quadrant are not particularly important, and their priority is low.

Lastly, the attributes in the bottom right quadrant (Quadrant Four) are less important, yet they provide high satisfaction. It demonstrates that the attributes in this quadrant are not particularly important,

but they boost tourist satisfaction because they may be excessive in source or number. According to Simpson et al. (2020), IPA gives a statistically straightforward indicator of which aspects need to be paid more attention to, less attention to, or should be kept at the same level of resources and performance.

The value of IPA is calculated by evaluating visitor judgments on importance and satisfaction. Taplin (2012) has mentioned that the IPA technique may provide practitioners with informative data on assessing visitor satisfaction and identifying characteristics of a marine tourism site that may be of concern using a clear visual format. It is crucial for long-term assessment and research to minimise the unwanted effects of developing marine tourism destinations whilst maintaining high visitor satisfaction.

METHODS

The findings of this research are noteworthy in that they could help develop marketing strategies grounded on the appeals of marine leisure tourism customers. Other than that, the findings can offer the essential details that could lead to the generation of a national marine policy. This research uses a quantitative method based on the IPA method to determine the value of several aspects of the overall marine tourist experience at KIMP. A review of the studies led to the identification of various attributes, and lastly, the findings were concluded in the four quadrants. There are three main steps in a regular IPA procedure. The first step is

choosing a set of attributes. Following that, participants must identify the significance and performance of the attributes (J. Chen et al., 2022).

Martilla and James (1977) have mentioned that using the IPA graph, four quadrants with distinct interpretations could be developed by having the y-axis represent importance while the x-axis represents performance. The IPA methodology serves as a vital analytical tool for policymakers, offering a visual representation of a four-quadrant framework that guides managerial decision-making based on the performance and significance ratings assigned to various attributes (Jin & Park, 2019).

Study Site

The research was conducted at KIMP in Terengganu, Malaysia (Figure 2). Geographically, KIMP is situated along the eastern coast of Peninsular Malaysia, delineated by the coordinates of approximately latitude 5.2190N and longitude 103.2469E of Marang district. The island spans just over 2 kilometres in length and approximately 1 kilometre in width. It is positioned roughly 4 kilometres south of Kuala Terengganu. Access to KIMP is conveniently facilitated through speedboat transportation operating from the Marang jetty. KIMP is close to tourism during the annual monsoon season, prevalent along the east coast, from November to March. KIMP is notably acclaimed for its exceptional coral reef ecosystems, encompassing a diverse spectrum of commercial fish species and immaculate white dunes (Islam et al., 2017).

Adam et al. (2022) mentioned that marine areas are extremely valuable and provide numerous recreational activities for visitors. Recreational activities such as snorkelling, scuba diving, canoeing, boating, and picnicking are popular among visitors. The primary attraction for the diver is World War II remnants found five nautical miles offshore. Furthermore, squid jigging around the island is a popular recreational activity and a significant source of revenue for the local fishermen. Snorkelling is the most well-known tourism activity in KIMP (Jaafar & Maideen, 2012; Safuan et al., 2021). Due to the small island, KIMP is not a major marine park tourism destination, but it has a developed tourist market with one dive centre and fewer than 10 resorts (Reef Check Malaysia, 2021).

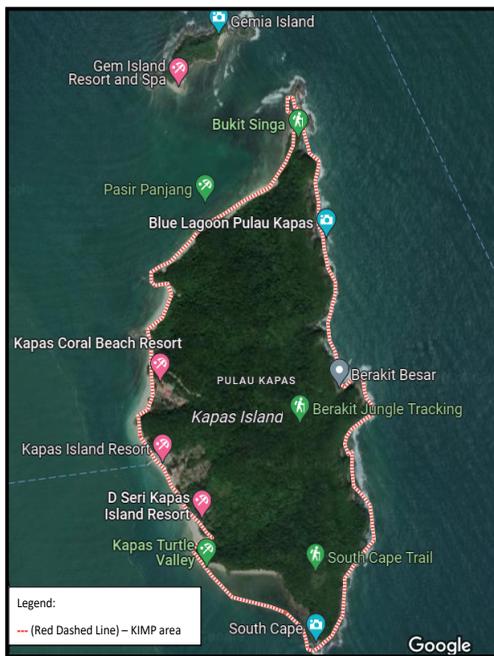


Figure 2. The map of KIMP (the whole of Kapas Island) as a research area

Questionnaire Design

A questionnaire was used as a survey method in this study. A review of relevant past studies led to identifying 14 attributes, which were presented and discussed in a focus group with professionals from the tourism industry in February 2022. The questionnaire consists of two sections: (1) the importance of the attributes and (2) the performance of the attributes. The respondents need to rate both sections at the same time. A five-point Likert-style scale is used to score the items in both parts from 1 = “not at all important” to 5 = “extremely important,” as well as from 1 = “not at all satisfied” to 5 = “very satisfied,” are the respective scales.

Each performance and importance attribute’s mean was computed and mapped out in a grid where the importance value is listed on the y-axis and the performance value on the x-axis. In social science research, 50% of the response proportion is deemed adequate and significant response bias can be eliminated with a response rate of at least 65% (Luck & Porter, 2019). After being originally written in English, the questionnaire’s final version was also translated into Malay to capture a wider range of understanding of local respondents. The data were scrutinised using SPSS® Statistics and Microsoft Excel.

Sampling and Data Collection

Convenient sampling was applied, and domestic and foreign visitors to KIMP were sampled. If a questionnaire is implemented as a tool for the research based on the

statistical analyses that were carried out, the minimal sample size is between 100 and 200 respondents (Fugard & Potts, 2015). The sample size must be substantial enough to guarantee that the survey can represent the study population. After being originally written in English, the survey's final version was also translated into Malay to capture a wider range of understanding of local respondents. In the present study, 350 questionnaires were given out to get the appropriate responses. However, there were only 310 acceptable questionnaires, which led to an 88.57% response rate. The main justifications for not answering the survey were the need for privacy or simply an unwillingness to participate. Those who chose not to fully complete the survey and did not return their questionnaire were considered non-respondents.

Data collection occurred from May to June 2022, primarily on weekends and public holidays. A face-to-face interview was conducted with one volunteer participant (18 years old and above) from each visitor group. This method ensures a full response rate and high-quality data since it allows the enumerators to assist the respondents in answering the questions as accurately as possible (Nadirah et al., 2020). The respondents were briefed on the survey details by trained enumerators who conducted the interviews. Enumerators first introduced themselves before requesting approval to conduct the survey. Enumerators described the purpose of the survey and displayed the relevant approval letter from authorities after receiving an affirmative answer from the respondents to participate.

RESULTS AND DISCUSSION

Socio-demographic Characteristics of Respondents

Table 1 shows the respondents age range from 18–25 years (35.5%), 26–33 years (24.5%), 34–41 years (15.5%), 42–50 years (13.5%) and lastly 51 years (11.0%). Most respondents are female (51.0%), and only 49.0% are male. During the survey, female respondents were easier to approach to participate in the survey compared to male respondents. The descriptive results show that most of the respondents are Malay (93.9%), followed by Chinese (4.8%), Indian (1.0%), and another category (0.3%).

The result reports that most respondents are married (51.9%), followed by single (47.7%) and lastly, 0.3% come from another category, either a widow or widower. In terms of education level, the majority have a diploma/bachelor's degree (70.0%), followed by secondary school (21.6%), master's or PhD holders (6.8%), primary school category (1.0%) and lastly, skills certificate category (0.6%).

The largest type of occupation among respondents is in the private sector (42.3%), followed by the government sector (25.5%). Only 20.6% are students, followed by retirees (4.8%), self-employed (3.2%), own business (2.9%) and housewives (0.6%).

Most respondents have an average income of RM1001–RM2,000 (28.1%), followed by less than RM1,000 (24.2%), RM2,002–RM3,000 (21.3%), RM4,001–RM5,000 (9.4%) and RM3,001–RM4,000 (8.1%). However, only a small percentage

of respondents have income in the range of RM7,000 (2.3%). Only 3.9% of respondents RM5,001–RM6,000 (2.9%) and RM6,001– have an income of more than RM7,000.

Table 1
Demographic profile of respondents

Descriptive	Frequency	Percentage (%)
Age (years)		
18–25	110	35.5
26–33	76	24.5
34–41	42	13.5
42–50	34	11.0
>51 years old	48	15.5
Gender		
Male	152	49.0
Female	158	51.0
Marital status		
Single	141	47.7
Married	161	51.9
Others	1	0.3
Race		
Malay	291	93.9
Chinese	15	4.8
Indian	3	1.0
Others	1	0.3
Education level		
Non-Formal	0	0
Primary School	3	1.0
Secondary School	67	21.6
Undergraduate	217	70.0
Postgraduate	21	6.8
Skills Certificate	2	0.6
Professional Diploma	0	0
Occupation		
Housewife	2	0.6
Student	64	20.6
Retiree	15	4.8

Table 1 (Continue)

Descriptive	Frequency	Percentage (%)
Self-employed	10	3.2
Own business	9	2.9
Private sector	131	42.3
Government	79	25.5
Income (RM)		
<RM1000	75	24.2
RM1001–RM2000	87	28.1
RM2001–RM3000	66	21.3
RM3001–RM4000	25	8.1
RM4001–RM5000	29	9.4
RM5001–RM6000	9	2.9
RM6001–RM7000	7	2.3
>RM7001	12	3.9

Importance-Performance Analysis

The gap analysis is defined as the mean performance minus the mean importance. Generally, gap analysis compares discrepancies against a baseline of zero. Positive gaps are recognised as extremely good when performance exceeds importance. However, negative gaps show

that managerial initiative may be needed when performance is unimportant. Table 2 shows the average mean for importance, where 4.71 is considered highly important. Meanwhile, the total average mean for performance is considered moderately satisfied.

Table 2
Gap analysis results for KIMP

Attributes	Mean importance	Mean performance	Gap analysis (P-I)
1 Jetty	4.86	3.28	-1.58
2 Toilet	4.90	2.92	-1.98
3 Hut	4.76	3.05	-1.71
4 Accommodation	4.85	3.55	-1.30
5 Dustbin	4.85	3.22	-1.63
6 Signage of conservation	4.71	2.95	-1.77
7 Level of cleanliness	4.80	3.30	-1.50
8 Camping facilities	4.59	3.16	-1.43
9 Souvenir shop	4.48	2.90	-1.58

Table 2 (Continue)

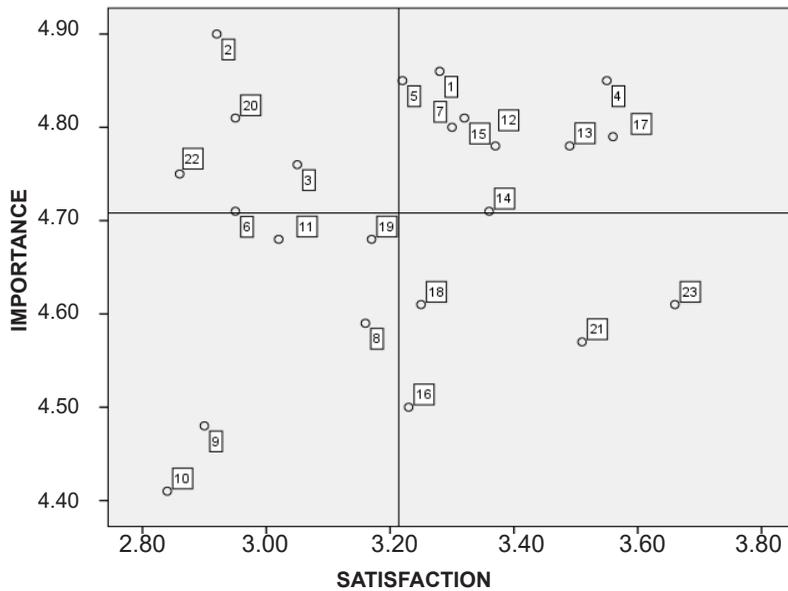
	Attributes	Mean importance	Mean performance	Gap analysis (P-I)
10	Marine park information	4.41	2.84	-1.58
11	Changing room	4.68	3.02	-1.66
12	Marine life watching	4.78	3.37	-1.41
13	Coral species	4.78	3.49	-1.29
14	Variety of flora and fauna	4.71	3.36	-1.35
15	Education of conservation	4.81	3.32	-1.50
16	Nature guide	4.50	3.23	-1.27
17	Boat transport	4.79	3.56	-1.23
18	Equipment rental services	4.61	3.25	-1.36
19	Variety of recreational facilities	4.68	3.17	-1.51
20	Safety and security	4.81	2.95	-1.86
21	Photography	4.57	3.51	-1.06
22	Lifeguard service	4.75	2.86	-1.89
23	Number of visitors	4.61	3.66	-0.95
	Average mean	4.71	3.21	

The significance-performance matrix for respondents' rankings of the importance and performance of tourism experiences at Kapas Island Marine Park is displayed on a grid with four quadrants (Figure 3). Each quadrant shows the importance of stakeholders' roles in perceived performance. Four quadrants are generated by charting importance and performance ratings along the x-axis and y-axis, highlighting spots where planners and policymakers should choose to increase their attention. It is possible to discover where gaps are by using this matrix. The findings of this analysis are shown in the next four quadrants (Figure 3).

Quadrant One: High Importance, low performance (Concentrate here)

Quadrant One (concentrate here) contains the attributes at KIMP deemed important by

various stakeholders but whose performance is considered poor. The tourism attributes are represented in numerous ways in Quadrant One. The tourism attributes and services in this quadrant appear to require serious attention. They are important, but the respondents have given them lower performance ratings. Primarily, the indicator in this quadrant shows that most attributes need to be improved in quality and performance (J. J. Kim et al., 2019). The strategy involves directing resources and efforts towards elevating the performance of these pivotal aspects that currently fall short of expectations. It is comparable to a premeditated assessment to concentrate resources where they can make the most significant impact, ultimately boosting the overall visitor experience (Torabi et al., 2022).



The facilities can be categorised into quadrants in the IPA Matrix based on their numbers:

1. Jetty	7. Level of Cleanliness	13. Coral Species	19. Variety of Recreational Facilities
2. Toilet	8. Camping Facilities	14. Variety of Flora and Fauna	20. Safety and Security
3. Hut	9. Souvenir Shop	15. Education of Conservation	21. Photography
4. Accommodation	10. Marine Park Information	16. Nature Guide	22. Lifeguard Service
5. Dustbin	11. Changing Room	17. Boat Transport	23. Number of Visitors
6. Signage of Conservation	12. Marine Life Watching	18. Equipment Rental Services	

Figure 3. Matrix of IPA

This study's quadrant includes different item variables such as toilets, huts, safety and security, and lifeguard services. These are the facilities and services required by most tourists to KIMP. While some of the items are consistent with the findings by Lee (2015), the result revealed high expectations for safety and convenience during activities. Another study by Mustafa et al. (2020) indicated that tourists ranked high importance but low performance for safety and security attributes for tourism in Bali, Indonesia.

The rising demand for marine areas as tourism destinations has caused challenges in terms of marine conservation. Human involvement, such as the influx of tourists to marine parks, can strain marine resources. In terms of attempts to improve satisfaction, these attributes take precedence (Jang et al., 2020).

Through this study, the importance of restroom facilities needs to be emphasised. It can be observed that the number of restroom facilities is relatively insufficient in key tourist areas. The crowded conditions

during peak seasons necessitate an increased number of restroom facilities and a guarantee of cleanliness during high usage. The same issue is noticeable regarding the insufficient number of picnic huts compared to the high number of tourists. The need for hut facilities is particularly evident due to the open and hot beach area. Many tourists arrive in groups, requiring relatively large huts. Safety is also a significant concern, as there are no lifeguard services; these aspects have fallen into Quadrant One.

This observation has two potential consequences: (1) despite a considerable rating discrepancy between stakeholders' expectations and perceptions, these things are relevant to all major stakeholders, and (2) in the tourism industry, all stakeholders must do a superior job of delivering these products. It should be a primary concern to increase efficiency or better standards.

Quadrant Two: High importance, high performance (Keep up the good work)

Quadrant Two (Keep up the good work) has several attributes that are significant and perform well in the marine tourism industry. The items that fall into this quadrant include the jetty, accommodation, dustbins, level of cleanliness, marine life watching, coral species, education on conservation, and boat transport. These highlight attributes within the marine tourism industry that hold considerable importance and boast commendable performance (Lankia et al., 2022). These services and facilities could be viewed as the strength of marine park tourism at Kapas Island Marine Park, and tourism operators' marketing activities

should focus on them. These aspects are contributing positively to the overall marine tourism experience. The finding is consistent with Saib et al. (2016), who evaluated tourists' satisfaction with the firefly industry in Sabah. The result showed that the number of fireflies fall into the quadrant "high importance and high performance."

Similar to the findings of this study, coral species and marine life play a significant role in marine tourism. Protecting coral species should be emphasised so that they are not harmed or in danger to keep visitors satisfied. The main factor contributing to biodiversity loss in the future is a lack of public awareness about biodiversity conservation (Ibrahim et al., 2023). Thus, conservation is important to protect the environment and sustain biodiversity. Boat agencies must maintain their good services. Additionally, satisfied visitors will become more devoted and likely to make repeat purchases. These components in Quadrant Two imply that the attributes already provide good service. Therefore, performance must be sustained, implying that ongoing maintenance and management are expected to maintain good procurement.

Quadrant Three: Low importance, low performance (Low priority)

Quadrant Three (Low Priority) covers tourism-related attributes that perform poorly and have little significance, representing subdued precedence for the marine tourism industry. Quadrant Three includes signage of conservation, camping facilities, souvenir

shops, marine park information, changing rooms, and recreational facilities. In addition, a variety of recreational facilities should be emphasised due to their nearly close to crosshair lines. Even if the results have indicated that visitors do not discover these elements to be significant, Management should not stop trying to improve these services.

The findings are consistent with the study by Oğuzbalaban and Kizilirmak (2019) that a variety of souvenirs are included in the quadrant of low priority for tourism experiences. On the other hand, souvenir shops are typically viewed as necessities by visitors. Visitors' satisfaction and importance are unaffected by the indicators in this quadrant. However, even if attributes are in the "Low Priority" quadrant, it does not indicate that they should be neglected by stakeholders (Zhang et al., 2021). Camping facilities, changing rooms and recreational facilities are basic amenities that must be provided at KIMP. Other than that, signage and marine park information are in the beginning phases of their stakeholder's development and may expand into a prominent level. Planning for tourism is likely to have a great impact on how it grows (Ling et al., 2022).

Quadrant Four: Low importance, high performance (Possible Overkill)

The marine tourism sector's components with low priority and high performance are included in Quadrant Four (Possible Overkill). Only four attributes, such

as nature guide services, recreational equipment rental services, photography and the number of visitors, fall into Quadrant Four. It presumes that although these attributes have a low significance score, they have obtained a high performance score. Quadrant Four delineates situations where these attributes indicate strong performance despite receiving low priority from visitors. That is similar to having a high achiever in non-essential areas. Deely et al. (2022) mentioned that the challenging aspect is figuring out whether the money allocated to these less crucial areas could be better utilised elsewhere, even though the exceptional performance is excellent.

Sundram and Gani (2022) and Irwana et al. (2015) mentioned that although these attributes may not be highlighted and need additional improvement, extra allocation to improve them must be carefully examined as well to focus on other attributes that need amendment. Zhang et al. (2021) justified that possible overkill attributes are commonly disregarded after assessment. As a result, there is a tendency for the traits that receive less attention to develop into challenges and potential problems when they are completely neglected.

CONCLUSION

In conclusion, effective management of marine park tourism depends on evaluating the quality of visitors' experiences and protecting the natural environment. The ability to strike a balance between providing a positive and rewarding experience for visitors and conserving the ecological

integrity of the marine park is critical to long-term and effective administration. It is about reconciling the human aspect of tourism with the need to maintain and conserve the valuable natural resources of the marine environment.

This study aims to determine some of the management's concerns concerning visitor satisfaction. In overseeing the marine park tourism destination in KIMP, administrators and stakeholders can evaluate visitor satisfaction using IPA, a straightforward and practical approach to evaluating visitor satisfaction compared to other methods. This study effectively compared the performance of the primary aspects that determine visitor satisfaction. The research outcomes can visually convey critical information about how these components fared in Kapas Island Marine Park. Results demonstrate which IPA studies contribute the most to future decision-making. KIMP tourism agencies could use the findings to improve performance in areas visitors perceive as important but where performance is weak.

Implications for Theory and Practice

IPA findings suggest that raising the quality of facilities, including restrooms, changing rooms, security, and lifeguard services, can significantly impact tourists' happiness. These facilities and services are of utmost importance to tourists. In this scenario, it is imperative for the management authorities to promptly enhance the prevailing condition. This objective can be accomplished by increasing the budget

allocation to finance the development, as well as recruiting additional workers to oversee its maintenance. Furthermore, allocating funds from the budget might be utilised for safety and life-saving training.

In the meantime, it is necessary to maintain the jetty, the kind of lodgings, the garbage cans, the degree of cleanliness, the marine life observation, the richness of coral species, the conservation awareness activities, and the boat transportation to provide a favourable experience for tourists. Even the signage of conservation, camping facilities, souvenir shops, marine park information, changing rooms and recreational facilities fall into the low-priority group; tourism planning should not ignore the importance of these aspects, as tourists' tastes and preferences may change. Finally, the features of nature guide services, recreational equipment rental services, scenery for photography, and a number of visitors exhibit a relatively modest level of significance, yet these components have demonstrated satisfactory performance. Nevertheless, IPA has shown that nature guide services, recreational equipment rental services, photography, and the number of visitors exhibited a commendable level of performance. This outcome is noteworthy, considering that the visitors perceived these attributes as having low significance.

Limitations of the Study and Recommendation for Future Research

The size of its sample constrains the scope of this study. Participant selection was

contingent upon their ease of accessibility. Future research should establish a broad and varied depiction of tourists, tour guides, and boatmen in KIMP and look into further areas of ecologically responsible tourism. Larger sample sizes for more representative analyses or broader scopes to cover a wider variety of marine tourism destinations, for example, might provide more insightful findings.

Lastly, the scope of the study only focused on one small island of the Malaysian marine parks' ecosystem. A series of comparative studies could be conducted in future, including comparing the marine park's performance with similar parks or international benchmarks to provide context for the analysis. It can contribute to more choices for conducting IPA or serve as a future preparation process for large-scale surveys.

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Pengaruh Komodifikasi dalam Pembentukan Imej ‘Sado’ Belia Melayu di Selangor, Malaysia

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ABSTRAK

Tubuh bukan berdiri sebagai binaan biologi sahaja, tetapi juga sarat dengan makna yang dapat digagaskan secara sosial oleh pelbagai tafsiran yang sesuai dengan nilai-nilai dan norma sesebuah masyarakat. Dalam tradisi masyarakat Melayu, lelaki digambarkan mempunyai sifat dan penampilan tubuh badan yang kuat dan gagah. Namun, perubahan zaman juga telah memperlihatkan perubahan tafsiran tentang tubuh lelaki yang berpaksikan kepada komodifikasi akibat budaya pengguna. Justeru, kajian ini bertujuan melihat pengaruh komodifikasi dalam membentuk dan memperkukuhkan lagi idea tentang ‘sado’ sehingga belia terikat dengan amalan tersebut. Pendekatan kualitatif diaplikasikan dalam kajian ini menggunakan jenis kajian fenomenologi untuk mengupas makna dan pengalaman yang dialami sendiri oleh subjek kajian. Data primer diperoleh melalui temu bual mendalam dan pemerhatian ke atas 20 orang responden yang terdiri daripada golongan belia Melayu yang aktif mengunjungi gimnasium di sekitar Bandar Baru Bangi, Selangor. Hasil kajian menunjukkan iklan merupakan salah satu mekanisme yang paling berpengaruh kerana mempunyai kekuatan dalam memujuk keinginan dan impian pengguna terhadap produk mahupun perkhidmatan yang berasaskan imej ‘sado’. Selain itu, hasil kerja golongan kapitalis yang mencipta pasaran melalui proses komodifikasi oleh perantara budaya baharu seperti pemilik gimnasium, jurulatih peribadi dan kelompok media sosial juga dapat mendidik dan membantu merealisasikan imej ‘sado’ dalam kalangan belia Melayu. Kesimpulannya, semakin besar pengaruh komodifikasi, maka semakin giat pembentukan imej ‘sado’. Kajian ini memberi sumbangan dalam memperkayakan data

dan menunjukkan kerelevanan berkaitan isu pembentukan tubuh badan, selain membuktikan penerimaan teori dalam konteks kepenggunaan masyarakat di negara ini.

Kata kunci: Belia Melayu, budaya pengguna, iklan, imej ‘sado’, komodifikasi

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The Impact of Commodification in the Creation of the ‘Sado’ Image among Malay Youth in Selangor, Malaysia

ABSTRACT

The human body is not merely a biological structure, but it also carries cultural significance and can be perceived differently based on a society's values and norms. The Malay community typically portrays men as being brave and robust. However, in modern times, there has been a shift in the perception of male bodies, with a focus on commodification in consumer culture. This research aims to demonstrate how the commodification of certain qualities can affect Malay youth and their interpretation of the ‘sado’ image, ultimately leading them to adopt the practice of ‘sado’. The study employs a qualitative approach using the phenomenological method to uncover the meaning of experiences and concepts from research subjects. The study collected primary data via field observations and in-depth interviews with 20 Malay youth selected from those who regularly attend gyms or fitness centers in the Bandar Baru Bangi region of Selangor. The findings show that advertising has a significant influence on shaping consumers' desires and preferences by promoting products and services based on a ‘sado’ image. Moreover, capitalists use cultural intermediaries such as gym owners, personal trainers, and social media groups to create a market through commodification, which helps educate and promote the ‘sado’ image among Malay youth. In conclusion, the ‘sado’ image is more likely to be established when commodification has a greater influence. This study contributes in enriching the data and shows the relevance related to the issue of body building, besides proving the acceptance of the theory in the context of the consumerism of society in this country.

Keywords: *Advertisement, commodification, consumer culture, Malay youth, ‘sado’ image*

PENGENALAN

Dalam beberapa dekad kebelakangan ini, kajian tubuh badan merupakan perkara yang banyak mendapat perhatian dalam bidang ilmu sosial dan pelbagai teori tubuh badan juga semakin berkembang baik (Adelman & Ruggi 2015; Caddel, 2018; Kimuyu, 2018; Rai et al., 2020; Shilling, 2012). Perbincangan yang berkaitan dengan makna, peranan dan fungsi tubuh sentiasa wujud seiring sejarah peradaban manusia. Pelbagai penelitian dalam kajian ilmu

sosial, khususnya sosiologi tubuh badan menunjukkan bahawa tubuh bukan berdiri sebagai binaan biologi sahaja, tetapi sarat dengan makna yang dapat digagaskan secara sosial oleh pelbagai ideologi yang sesuai dengan nilai-nilai dan norma dalam sesebuah masyarakat (Mochtar, 2009; Nettleton, 2009). Selari dengan itu, Falk (1994) menjelaskan bahawa peranan tubuh badan berubah mengikut peradaban dalam kepelbagaian budaya dan manifestasi yang telah tertanam. Tegasnya, sebagai

elemen dalam budaya, peranan tubuh badan manusia bukan hanya sekadar mewakili bentuk fizikal tetapi melangkaui jauh dari itu.

Pada awalnya perhatian terhadap penampilan tubuh badan hanya diberikan kepada perempuan, namun perkembangan zaman menyebabkan penampilan diri dan tubuh badan lelaki juga turut diberikan keutamaan (Frangky, 2012). Dapat diperhatikan, perubahan demi perubahan pada imej atau susuk tubuh jantina seorang lelaki yang sentiasa bergerak mengikut peredaran zaman. Jika perempuan obses kepada rupa paras yang cantik dan bentuk badan yang langsing, lelaki pula menginginkan tubuh badan yang tegap, sasa dan otot yang kekar (Budiasuti & Wulan, 2014). Beberapa kajian lepas menunjukkan bahawa banyak lelaki yang tidak berpuas hati dengan keadaan tubuh badan mereka dan sesetengahnya mempunyai keinginan untuk memiliki tubuh yang berotot dan sasa (Ridgeway & Tylka, 2005; Tiggemann & Anderberg, 2020). Kebiasaannya, tubuh badan yang sasa dicirikan kepada kategori badan jenis *mesomorphic* (mempunyai potongan menarik dan bentuk secara purata), iaitu, badan yang berbentuk 'V'. Badan yang berbentuk 'V' dicirikan seperti dada yang bidang, bahu yang lebar, pinggang tirus dan badan berbentuk atlet (Labre, 2005; Olivardia, 2007; Rathakrishnan & Loh, 2011).

Jika sebelum ini proses membina otot hanya untuk sukan bina badan (*bodybuilder*), namun Andreasson dan Johansson (2015), Frangky (2012) serta Mohamed (2011)

menyatakan bahawa mempunyai tubuh badan yang berotot juga ialah salah satu petunjuk utama bagi kemaskulinan. Tambahan lagi, tubuh yang kekar dianggap dapat memberikan kelebihan, misalnya mewakili kekuatan fizikal (McGrath, 2006), menonjolkan harga diri (Kimmel & Messner, 2010) serta membantu membina identiti diri yang positif (Robertson, 2007). Malah bukti sedia ada juga menunjukkan bahawa tubuh badan yang berotot merupakan komponen utama daya tarikan seorang lelaki (Gray & Frederick, 2012; Sell et al., 2017).

Menurut N. Zaidi (2017), di Malaysia realiti sosial yang wujud bersama kemajuan teknologi menyebabkan berlakunya dinamika bahasa yang telah membina etimologi kata iaitu 'sado.' 'Sado' berasal daripada bahasa slanga yang digunakan oleh masyarakat terutamanya golongan remaja. 'Sado' menggambarkan fizikal individu yang mempunyai tubuh badan sasa, kekar dan berotot. Perkataan 'sado' mula menjadi perkataan seharian rakyat Malaysia dan secara tidak langsung mendapat tempat sebagai kenyataan yang diterjemahkan dalam bentuk visual. Selain perkataan 'sado,' terdapat juga istilah 'sendo' yang aktif digunakan oleh kebanyakan masyarakat pada sekitar tahun 1970-an. Istilah 'sendo' berasal daripada nama Eugen Sandow iaitu seorang ahli bina badan yang memenangi pertandingan bina badan yang pertama kali dianjurkan pada tahun 1901. Sejak itu, nama Sandow telah digunakan untuk merujuk kepada seseorang yang bertubuh sasa. Walau bagaimanapun, panggilan 'sandow' telah berevolusi di Tanah Melayu

iaitu daripada 'sandow' kepada 'sendo.' Seterusnya, panggilan tersebut berevolusi pula kepada perkataan 'sado' sekitar tahun 2000 sehingga kini (M. Zaidi, 2018).

Dalam masyarakat Melayu, budaya dan tradisi amat menekankan imej dan jati diri yang membezakan kedudukan antara jantina. Oleh sebab itu, lelaki digambarkan mempunyai sifat dan penampilan tubuh badan yang gagah dan perkasa. Hal ini bersandarkan kepada tingkah laku dan sifat ikon lelaki dalam masyarakat Melayu, seperti yang ditonjolkan dalam karya kesusasteraan *Hikayat Hang Tuah*. Pada satu sudut, Hang Tuah ialah watak lelaki yang dikenali juga sebagai pejuang bangsa Melayu dan dicanangkan hebat kerana kepatuhan serta kesetiiaannya kepada pemerintah raja. Malah Hang Tuah juga digambarkan sebagai seorang yang gagah dan hebat kerana mempunyai ilmu silat mempertahankan diri. Namun begitu, menurut Yusoff (1998) dan Ramli (2004), sejak kecil lagi masyarakat Melayu terdedah kepada proses sosialisasi yang berbeza bergantung kepada jantina, sama ada lelaki ataupun perempuan.

Dalam memperkatakan mengenai kemaskulinan, ia tidak terlepas daripada membicarakan tentang gender. Mengikut Tahir (2013), konsep gender digunakan untuk menerangkan tentang binaan atau gagasan sosial yang berkaitan kemaskulinan dan kewanitaan. Keadaan ini berbeza daripada konsep jantina yang membezakan antara lelaki dengan perempuan. Secara umumnya, istilah gender merujuk kepada persamaan dan perbezaan sosial antara lelaki dengan perempuan yang dipelajari

daripada budaya dan masyarakat, serta dapat berubah seiring dengan keadaan dan peredaran masa. Seperti yang dinyatakan oleh Lee (2008), peranan yang dimainkan oleh seseorang ialah lanjutan daripada proses sosialisasi, nilai dan jangkauan sosial serta pengalaman. Ringkasnya, kesemua ciri dalam menentukan kemaskulinan ataupun kewanitaan disosialisasikan dan dipelajari oleh anggota masyarakat sama ada di rumah, sekolah mahupun di institusi-institusi sosial yang lain. Elemen yang dipelajari dan dikenali dalam persekitaran seseorang itu membentuk, mengubah dan memaparkan identitinya sendiri.

Sesuai dengan perspektif gagasan sosial, muncul pula fenomena budaya pengguna yang dapat mengubah gaya hidup masyarakat secara keseluruhannya. Di sini, proses globalisasi telah menyebabkan kemunculan kapitalisme global yang membantu masyarakat dalam menjalankan aktiviti kehidupan seharian. Kemajuan teknologi dan pasaran bebas telah mewujudkan hubungan antara kapitalis dengan pengguna. Mengikut Suyanto (2017), realiti sosio-ekonomi pada era masyarakat pascamodenisme ini berkembang disebabkan proses komodifikasi yang tersebar luas, dan tingkah laku penggunaan masyarakat juga berkembang dengan cepat kerana adanya sokongan dan pertumbuhan teknologi maklumat yang luar biasa. Dalam budaya pengguna, pembentukan imej atau tubuh badan memainkan peranan penting kerana melalui tubuh manusia dapat menggagaskan identiti dengan corak pengguna (Mochtar, 2009). Tubuh diberikan gambaran sebagai

objek yang menggunakan segala bentuk komoditi yang ditawarkan oleh industri kapitalis, selain tubuh juga menjadi salah satu komoditi yang dapat dijual beli. Seperti yang dijelaskan oleh Featherstone (1982), penampilan merupakan faktor utama dalam menentukan 'nilai jual,' kerana tubuh mampu menjadi medium untuk menikmati kepuasan dan ekspresi diri sehingga dapat menunjukkan jati diri seseorang individu.

Di sini, kemaskulinan dalam konteks budaya pengguna adalah suatu elemen yang dikomodifikasikan. Komodifikasi dapat didefinisikan sebagai proses asosiasi terhadap kapitalisme iaitu objek, kualiti dan tanda dijadikan sebagai komoditi. Sebagai komoditi, ia tidak hanya penting untuk nilai guna (*use value*) tetapi juga sebagai nilai tukar (*exchange value*). Dalam konteks kajian ini, imej 'sado' merupakan komodifikasi yang mempunyai nilai dan dianggap sebagai suatu sistem komoditi yang dijual dalam bentuk produk-produk dan perkhidmatan. Namun, apa yang menjadi persoalan kajian ialah sejauh mana idea tradisional tentang 'sado' dapat dikomodifikasi oleh golongan kapitalis. Justeru, kajian ini bertujuan melihat pengaruh komodifikasi dalam membentuk atau memperkukuhkan idea 'sado' sehingga belia dapat terikat dengan amalan 'sado' tersebut.

TINJAUAN LITERATUR

Kemaskulinan tentunya bertitik tolak daripada sebuah kritikan moden feminisme terhadap kekuasaan lelaki yang mendominasi wanita. Namun demikian, perspektif

kemaskulinan bukan sekadar satu arah berdasarkan refleksi daripada gender yang lain tetapi merupakan bidang kajian yang kritikal tentang lelaki. Secara konseptual, identiti kemaskulinan berkisar tentang kelelakian, identiti lelaki serta peranan lelaki (Connell, 1993; Jourian, 2018; Quam et al., 2020). Begitu juga dengan Tuncay (2006) yang menyebut bahawa kemaskulinan dapat ditakrifkan sebagai cara menjadi seorang lelaki. Mengikuti Connell (2005) pula, kemaskulinan dapat difahami sebagai konfigurasi amalan dalam kehidupan seharian, yang sebahagian besarnya digagaskan secara sosial. Konsep ini berlainan daripada definisi yang difahami umum terhadap seks biologi seorang lelaki (Venegas, 2020). Tambah Hearn (2019), penanda aras kepada keperibadian ataupun kemaskulinan seseorang individu itu bersandarkan kepada budaya dan tempoh sejarah yang berbeza.

Bagi Khoo (2012), kemaskulinan menjurus ke arah sifat-sifat lelaki atau kelelakian yang dijangka oleh masyarakat. Misalnya, lelaki dilarang melakukan perkara-perkara yang selalunya dilakukan oleh wanita seperti menangis, lemah-lembut dan berada di 'belakang.' Tambah beliau lagi, ahli masyarakat juga sentiasa didedahkan dengan tanggapan bahawa lelaki adalah berbeza berbanding wanita kerana kebiasaannya lelaki mempunyai tanggungjawab ke atas hal-hal yang penting, bekerja kuat, berani dan selalu melakukan sesuatu untuk orang lain. Begitu juga yang dinyatakan oleh Berila (2011) iaitu maskulin bertentangan dengan konsep feminin yang

kelihatan lebih pasif, lemah dan beremosi. Manakala Bozkurt et al. (2015) pula mendefinisikan maskulin sebagai karakter yang sanggup mengambil risiko, berdikari, mempunyai personaliti yang tersendiri serta berkepimpinan dan rasional. Untuk kelihatan sebagai lelaki sejati, seseorang itu mesti mempunyai sifat-sifat tersebut. Pendek kata, kemaskulinan ialah peranan lelaki yang dilihat secara fizikal dan sosial dalam persekitaran masyarakat.

Kajian oleh Connell (2005) mendapati bahawa kemaskulinan terbina daripada budaya dan tempoh sejarah yang berbeza. Sifat maskulin muncul apabila manusia bertindak dan ia dapat dicapai melalui tingkah laku seharian ataupun dalam kehidupan berorganisasi. Tambahan pula menurut Connell, kemaskulinan dihasilkan dan dikekalkan secara budaya dan menjadi amalan seharian yang diulang-ulang seperti tindakan, berpakaian ataupun bercakap dengan cara khusus gender tertentu. Hal ini bermakna, kemaskulinan itu dibina semula secara teratur, dapat berubah-ubah dan digagaskan secara berbeza-beza dalam situasi atau keadaan dan juga mengikut konteks budaya.

Perkembangan kemaskulinan di barat telah mengalami evolusi atau perubahan dari zaman ke zaman, mengikut kesesuaian budaya dalam masyarakat. Perkara ini telah dikemukakan oleh Beynon (2002) yang menggambarkan perkembangan susuk maskulin di barat dalam empat dekad, iaitu antara sebelum tahun 1980-an hingga tahun 2000-an. Secara ringkasnya, kemaskulinan sebelum tahun 1980-an

digambarkan sebagai lelaki yang dominan atau *superior* berbanding perempuan, dengan bergantung kepada kekuatan fizikal serta bersifat agresif, berani, tahan lasak dan sebagai pembuat keputusan. Pada pandangan barat, konsep tersebut dinamakan kemaskulinan secara tradisional. Seterusnya, perkembangan kemaskulinan pada tahun 1980-an pula adalah berbeza. Lelaki mula memberi perhatian kepada sifat feminin dan tertarik kepada pakaian dan muzik. Bermula dari situ, pelbagai produk komersial untuk lelaki terdapat di pasaran. Pada era 1990-an pula, sifat lelaki tidak lagi peduli kepada hal yang remeh-temeh seperti sebelumnya. Mereka lebih terarah kepada sifat-sifat kelelakian yang kacak, keras dan hooliganism. Manakala kemaskulinan pada tahun 2000-an munculnya terminologi baharu iaitu metroseksual. Lelaki metroseksual amat mengambil berat tentang imej dan gaya kerana mereka sentiasa mementingkan penampilan diri dan peka kepada perkembangan fesyen terkini.

Selain itu, terdapat juga penyelidikan mengenai ketidakpuasan tubuh badan yang menjadi masalah terhadap lelaki. Kajian oleh Jung et al. (2010) serta Neighbors dan Sobal (2007) mendapati sebanyak 68 hingga 95 peratus lelaki dewasa di Amerika Syarikat tidak berpuas hati dengan tubuh badan yang dimiliki. Begitu juga kajian yang dilakukan oleh You dan Shin (2016) yang mendapati antara isu utama aspek imej badan ialah faktor ketidakpuasan individu terhadap bahagian-bahagian tertentu pada tubuh badan mereka. Ketidakpuasan tubuh badan merujuk kepada perasaan negatif dan

kognisi mengenai badan seseorang yang dikaitkan dengan perkara-perkara yang negatif dalam kalangan lelaki, termasuklah penggunaan steroid, masa makan yang tidak menentu, menghadapi masalah kemurungan dan mempunyai keyakinan diri yang rendah (Blashill, 2010). Di sini, keprihatinan utama bagi lelaki ialah otot tubuh badan mereka. Seperti mana kajian yang dilakukan oleh Ridgeway dan Tylka (2005) yang mendapati kebanyakan sampel kajian ingin meningkatkan saiz otot mereka. Keadaan sedemikian jelas membuktikan bahawa banyak lelaki tidak berpuas hati dengan tubuh badan yang dimiliki dan mereka mempunyai keinginan untuk mendapatkan tubuh badan yang berotot dan tanpa lemak.

Manakala kajian perbandingan yang dilakukan oleh Ma et al. (2021) adalah mengenai maskuliniti hegemoni di negara China, Korea Selatan dan Jepun. Bagi setiap negara di Asia Timur tersebut, penyelidikan secara khusus menganalisis sebab pembentukan maskuliniti hegemoni, dan kemudian membincangkan tentang kesan terhadap negara. Daripada perbandingan penyelidikan tersebut, persamaan yang paling jelas dan sangat ditekankan adalah mengenai *Confusianisme* yang meletakkan lelaki dalam kedudukan dominan. Di samping itu, kedua-dua jantina iaitu lelaki dan wanita menerima kesan akibat daripada berleluasanya maskuliniti hegemoni dalam kalangan masyarakat. Walau bagaimanapun, pembentukan maskuliniti hegemoni di ketiga-tiga negara tersebut adalah berbeza kerana negara Jepun memberi tumpuan kepada budayanya sendiri, manakala negara

China memberi tumpuan kepada sejarah yang berlangsung lebih daripada 2000 tahun, dan Korea Selatan pula mempunyai sebab yang unik iaitu berkaitan dengan pertahanan tentera. Ringkasnya, setiap negara mengembangkan sifat maskulin hegemoninya dalam pelbagai cara dan ia masih mempengaruhi masyarakat sehingga kini.

Di Malaysia, tafsiran terhadap citra kemaskulinan seorang lelaki masih lagi belum jelas dan masih kurang usaha dalam membina kerangka idea untuk mendalaminya. Namun, pandangan Baharuddin dan Sukimi (2006) ialah wujud tafsiran kemaskulinan terhadap anggapan kekuasaan oleh seorang lelaki berdasarkan peranan pemain politik dalam kerangka etnosentrik. Hal yang jelas dilihat dalam penulisan tersebut ialah tindak tanduk gender lelaki yang berpaksi kepada kekuasaan. Connell (1987) menganjurkan hal ini dalam sebuah konseptualisasi hegemoni kepada maskuliniti hegemoni iaitu sebuah konsep yang memperlihatkan cara lelaki menanggapi cabaran kuasa setiap hari malahan memikirkan kehendak dominasi dalam hierarki gendernya melalui kesedaran, kepelbagaian peranan karekturnya serta moraliti. Maskuliniti hegemoni hadir dalam setiap sudut kehidupan sosial seorang lelaki dan menentukan tahap ideal berdasarkan batas-batas nilai dan budaya.

Dalam masyarakat Melayu, ketidaktentuan maskulin yang ideal berdasarkan pengalaman di Malaysia menyebabkan kita tercari-cari sandaran bentuk dan acuan kelelakian yang harus

dicontohi sehingga akhirnya jatuh ke dalam romantisme hikayat kepahlawanan seperti Hang Tuah (N. Zaidi, 2017). Dalam tulisannya, perdebatan kebenaran heroisme dan relativiti moral dalam persejarahan bukan menjadi perkara pokok yang dibincangkan tetapi naratif arus perdana telah menjadikan perwatakan Hang Tuah memiliki aspek kelelakian. Hang Tuah pada satu sudut merupakan watak kelelakian yang juga pejuang bangsa Melayu yang dicanangkan hebat berdasarkan kepatuhan dan kesetiannya kepada pemerintah sultan. Hang Tuah digambarkan sebagai individu yang gagah dan hebat dengan ilmu persilatan dan di sini bermulanya kata gagah yang memperlihatkan aspek kelelakian bersandarkan kepada susuk tubuh lelaki. Kegagahan merupakan konsep kuasa yang diartikulasikan daripada keadaan fizikal secara zahir. Dalam perkembangan selanjutnya, tubuh badan mula menjadi cara mendapatkan pengiktirafan sosial pada era pascamodenisme.

Alfitri (2007) menjelaskan budaya pengguna mempengaruhi sikap seseorang untuk membuat keputusan pembelian sesuatu produk yang jelas dikawal oleh kuasa media massa. Perubahan budaya pengguna ini ialah akibat pendedahan yang dicetuskan oleh persekitaran bandar yang menyediakan kemudahan membeli-belah. Budaya pengguna ini mewujudkan individu yang tidak berkemampuan mengurus perbelanjaan kewangan malah tidak produktif dan ia hanya memberikan kesedaran palsu kepada masyarakat. Manakala untuk masyarakat kelas yang lebih rendah, budaya pengguna

mencetuskan penurunan kualiti hidup dan juga menjebak kepada tindakan jenayah serta memusnahkan hidup keluarga. Seperti mana kajian yang dilakukan oleh Rosida (2018) yang menunjukkan tubuh badan perempuan bandar di Jakarta digagaskan oleh budaya pengguna melalui gambaran dalam karya *Miss Jinjing Belanja Sampai Mati* (2008). Menurut beliau, tubuh badan perempuan bandar digagaskan oleh ideologi kapitalisme, penggunaan dan ideologi patriarki. Ketiga-tiga ideologi tersebut saling memperkukuh antara satu sama lain, sehingga akhirnya terjadi kesepaduan antara setiap ideologi.

Kajian Budiastuti dan Wulan (2014) membahaskan mengenai remaja di bandar membangunkan makna kemaskulinan melalui budaya popular, seperti majalah ataupun buku, muzik, filem dan juga jaringan sosial misalnya Facebook. Data dikumpul melalui perbincangan secara berkelompok dan temu bual mendalam ke atas 49 orang pelajar lelaki sekolah menengah di Surabaya, Indonesia. Hasil penelitian menunjukkan bahawa nilai-nilai gender yang terkait dengan konsep kelelakian yang lebih dewasa ialah petanda penting kepada gagasan kemaskulinan yang lebih ideal dalam kalangan remaja. Bentuk-bentuk maskulin tersebut adalah lebih dekat dengan kemaskulinan aristokrat Jawa yang terkait dengan tanggungjawab, kehandalan, kesabaran dan menjadi pelindung. Namun, subjek yang diteliti juga menunjukkan upaya mengaitkan kemaskulinan tradisional dengan norma maskulin yang mereka peroleh daripada budaya popular seperti

bertanggungjawab, peduli, melindungi, sopan dan berotot sebagai norma maskulin yang ideal. Mereka menyimpulkan maskulin sangat dipengaruhi oleh dinamika budaya dan sosial dalam masyarakat di mana konsep maskulin tersebut berkembang.

Kajian oleh Ismail (2014) menunjukkan penggagasan dunia remaja lelaki serta peranan gender yang diwakili oleh majalah *Remaja* yang diperkenalkan sejak tahun 1984. Tujuan utama penelitian adalah untuk meneroka gambaran tentang lelaki dalam majalah yang berfokus kepada golongan remaja di Malaysia. Hal ini kerana hampir kebanyakan kajian yang dipaparkan sebelumnya adalah dalam konteks budaya barat dan tidak berkaitan dengan gambaran kemaskulinan dalam majalah remaja di Malaysia. Hasil kajian mendapati, melalui ruangan dalam majalah tersebut kerap menguatkan tentang *hegemonic masculinity*, untuk menjadi lelaki yang tradisional, matang, mempunyai fizikal yang menarik, berjaya dari segi kewangan dan juga penyayang. Selain itu, majalah tersebut juga menggalakkan pembaca wanita menjadi seperti yang dikehendaki oleh lelaki. Manakala pembaca lelaki pula perlu berhadapan dengan jangkaan perempuan tentang lelaki yang menjadi idaman dan berkemungkinan perlu bersosialisasi untuk menepati ciri tersebut.

Berdasarkan tinjauan literatur tersebut, dapat dilihat bahawa kajian-kajian yang berkaitan dengan aspek penampilan tubuh badan yang menunjukkan identiti kemaskulinan bagi lelaki telah banyak dilakukan di negara-negara luar. Walaupun

terdapat beberapa kajian di Malaysia mengenai penampilan tubuh badan sebagai realiti sosial (antaranya seperti Ismail, 2014; Radzi et al., 2018), namun perkaitannya dengan budaya pengguna masih kurang dilakukan. Justeru, kajian ini adalah untuk menampung lompang ilmu dan pada masa yang sama menambah korpus ilmu berkaitan fenomena tersebut secara lebih spesifik dan mendalam.

Pandangan Teoretikal

Kajian ini dianalisis menggunakan pendekatan sosiologi budaya pengguna iaitu berlandaskan teori budaya pengguna. Teori ini dipelopori oleh Featherstone (1991) yang membahaskan tentang budaya pengguna pada era pascamodernisme yang dikenali juga sebagai dunia yang penuh dengan simbol dan imej. Featherstone memperkenalkan tiga perspektif utama dalam budaya pengguna. Walau bagaimanapun, dalam artikel ini penulis hanya menggunakan perspektif yang pertama sahaja iaitu budaya pengguna adalah berlandaskan kepada perkembangan pengeluaran komoditi oleh golongan kapitalis yang menyebabkan peningkatan secara meluas dalam bentuk barang-barang penggunaan dan tempat-tempat untuk berbelanja. Keadaan ini menyebabkan berlakunya perkembangan pemikiran dan idea yang menegaskan betapa pentingnya aktiviti berbelanja dalam masyarakat komoditi.

Dalam perspektif ekonomi klasik, objek daripada semua pengeluaran ialah penggunaan individu dalam memaksimumkan kepuasan mereka melalui

pembelian barang-barang konsumsi. Namun, menurut pengikut neo-Marxist pada abad ke-20, perkembangan ini dipandang sebagai cara menghasilkan kesempatan dan menghasilkan keuntungan. Perkembangan pesat pengeluaran kapitalis dan pasaran yang semakin meluas terutamanya selepas abad ke-20 telah menyebabkan perlunya 'pendidikan' kepada masyarakat melalui medium pengiklanan dan media massa agar mereka menjadi pengguna. Dalam penelitian Featherstone (1991), perspektif ini menyatakan pengumpulan barang-barang menghasilkan penekanan yang besar terhadap nilai tukaran ataupun nilai komersial. Dalam konteks ini, kepentingan instrumental ataupun kegunaan praktikal dalam semua aspek kehidupan menjadi lebih menonjol apabila semua perbezaan, tradisi budaya dan kualiti berubah menjadi kuantiti. Manakala penggunaan logik modal yang dibawa oleh golongan kapitalis adalah untuk 'peleburan budaya' dan digantikan dengan budaya moden.

Justeru, berasaskan teori budaya pengguna tersebut dapat dikatakan bahawa tubuh badan menjadi elemen komodifikasi oleh golongan kapitalis dengan menggunakan kekuatan iklan untuk mempromosikan idea, barang ataupun perkhidmatan. Manakala, hasil kerja golongan kapitalis yang mencipta pasaran melalui perantara budaya, seperti media sosial juga berupaya mewujudkan tingkah laku membeli ke atas barang-barang ataupun perkhidmatan yang ditawarkan dalam kalangan masyarakat. Oleh yang demikian, dalam hubungan antara teori budaya pengguna dengan pembentukan

identiti 'sado' dapat diandaikan bahawa semakin kukuh idea tentang kemaskulinan tersebar melalui iklan, maka semakin besar tingkah laku konsumsi dilakukan.

KAEDAH KAJIAN

Kajian ini menggunakan pendekatan kualitatif kerana kemampuan pendekatan penganalisisan berdasarkan tema kajian (*thematic coding*) dan huraian deskriptif (Creswell, 1998; Denzin & Lincoln, 1994). Jenis kajian fenomenologi dipilih kerana ia mampu mengupas makna konsep ataupun pengalaman yang dialami oleh individu atau subjek kajian. Manakala teknik pengumpulan data yang digunakan ialah temu bual mendalam (*in-depth interview*) dan pemerhatian. Sampel kajian dipilih secara pensampelan bertujuan (*purposive sampling*) iaitu berfokus kepada lelaki Melayu yang berusia antara 15 hingga 40 tahun. Walaupun skop kajian hanya tertumpu kepada satu etnik sahaja (Melayu), tetapi responden yang dipilih ialah individu yang mempunyai kaitan penting dalam pembentukan tubuh badan iaitu aktif menggunakan gimnasium dan merupakan ahli yang berdaftar dengan gimnasium berkenaan dalam tempoh sekurang-kurangnya enam bulan. Oleh itu, dapatan yang diperoleh melalui responden tersebut dapat melengkapkan lagi hasil kajian yang dilakukan.

Proses temu bual dijalankan ke atas 20 orang responden dengan mengadakan pertemuan sekurang-kurangnya dua kali bagi setiap responden mengikut kesesuaian masa dan juga keperluan kajian. Kajian

ini dijalankan di beberapa buah pusat kecergasan atau gimnasium yang terdapat di sekitar Bandar Baru Bangi, Selangor. Antaranya ialah Bodyprime Gym, Gymbett Fitness, Jom Fit Gym dan Perfect Fit Fitness Centre. Seterusnya, bagi kaedah memproses dan menganalisis data pula, keseluruhan data daripada temu bual akan dikumpulkan melalui rakaman telefon bimbit dan catatan tulisan tangan. Analisis dimulakan dengan membaca hasil temu bual bagi mendapatkan gambaran keseluruhan dan kemudian kembali ke setiap transkrip temu bual dan membacanya dengan terperinci. Selepas itu, temu bual untuk setiap responden akan ditranskripkan secara verbatim setelah temu bual berlangsung. Dengan cara ini, data akan ditranskrip dan dikod sebelum dianalisis. Bagi mendapatkan hubungan dengan persoalan kajian, penyelidik menggunakan analisis tematik untuk mengenal pasti corak

dan tema yang paling menarik semasa temu bual. Selain itu, analisis data berasaskan kaedah triangulasi juga digunakan dalam kajian ini iaitu antara data temu bual dengan data pemerhatian dan data sekunder. Data yang diperolehi akan dilihat dan dipisahkan berdasarkan tema dalam dapatan kajian.

ANALISIS DAN PERBINCANGAN

Latar Belakang Responden

Responden yang terlibat dalam kajian ini terdiri daripada golongan belia dan hanya tertumpu kepada etnik Melayu sahaja. Seramai 20 orang responden telah ditemu bual seperti yang ditunjukkan dalam Jadual 1. Dalam pada itu, semua nama responden yang digunakan dalam kajian ini bukan nama sebenar dan diubah atas sebab privasi responden.

Jadual 1
Latar belakang responden

No.	Nama	Umur (Tahun)	Tahap pendidikan	Pekerjaan
1.	Khyril	32	Diploma	Juruteknik
2.	Hannan	20	Diploma	Pelajar/Staf gimnasium
3.	Amirul	23	Sarjana Muda	Pelajar
4.	Umar	23	Sarjana Muda	Pelajar
5.	Fattah	25	Diploma	Staf gimnasium
6.	Syafiq	28	Diploma	Pelajar
7.	Hafiz	18	Diploma	Pelajar
8.	Faris	26	Sarjana Muda	Berniaga
9.	Faizal	34	SPM	Berniaga/Staf gimnasium
10.	Baharin	22	Sarjana Muda	Pelajar
11.	Fiqri	21	Sarjana Muda	Pelajar

Jadual 1 (Continue)

No.	Nama	Umur (Tahun)	Tahap pendidikan	Pekerjaan
12.	Syukri	39	Sijil	Pekerja Swasta
13.	Izat	18	SPM	Pelajar
14.	Azam	27	Sarjana Muda	Jurulatih MSN
15.	Muhizsham	28	Sarjana	Pekerja Swasta
16.	Zamir	28	Sijil	Jurulatih Kecergasan
17.	Farhan	26	SPM	Pekerja Swasta
18.	Faiz	27	Diploma	Kakitangan Awam
19.	Anip	19	SPM	Bekerja Sendiri
20.	Malik	30	STPM	Berniaga

Umur setiap responden yang terlibat adalah antara 18 hingga 39 tahun. Hal ini seiring dengan garis panduan pengkaji yang menetapkan transisi umur pemilihan subjek kajian adalah dalam golongan belia. Tahap pendidikan kebanyakan responden ialah diploma dan ijazah dalam pelbagai bidang. Seramai enam orang responden memiliki diploma, manakala enam lagi melanjutkan pelajaran sehingga ke peringkat ijazah sarjana muda. Bagi yang selebihnya pula tahap pendidikan mereka adalah di peringkat Sijil Pelajaran Malaysia (SPM) dan Sijil Tinggi Persekolahan Malaysia (STPM). Selain itu, terdapat seorang dalam kalangan responden sedang melanjutkan pelajaran ke peringkat sarjana secara separuh masa. Seterusnya dari segi pekerjaan, 12 orang daripada keseluruhan responden mempunyai pendapatan tetap dengan bekerja di pelbagai sektor, antaranya sebagai kakitangan awam dan swasta, berniaga serta bekerja sendiri. Baki lapan orang lagi merupakan pelajar sepenuh masa.

Komodifikasi Idea ‘Sado’ melalui Periklanan

Pada era masyarakat pascamodenisme, iklan merupakan pelengkap penting kepada industrialisasi dan kapitalisme. Berdasarkan kenyataan Kasiyan (2008), iklan merupakan salah satu mekanisme yang paling berpengaruh kerana terbukti mempunyai kekuatan dalam memujuk hasrat pengguna terhadap produk barangan mahupun perkhidmatan dalam kalangan masyarakat melalui ideologi secara imej yang dibangunkan. Secara umum, iklan dapat diertikan sebagai kegiatan untuk menarik perhatian serta memujuk sebahagian besar ataupun seluruh masyarakat dalam melakukan tindakan ke atas idea, barang ataupun perkhidmatan yang ditawarkan (Suyanto, 2017). Sesungguhnya, pengaruh iklan begitu besar terhadap kesedaran khalayak yang dapat dimanfaatkan dengan pelbagai tujuan. Bermula daripada memperkenalkan produk, meningkatkan penjualan sehingga memperkuat imej

produk ataupun perusahaan golongan kapitalis. Hal ini juga disetujui oleh kebanyakan responden. Azam misalnya mengatakan:

Pada pendapat saya, kewujudan iklan ni banyak mempengaruhi kita dan kita tak boleh nak dipisahkan dengan dunia pengiklanan. Tak kira la yang ada di media massa ke, billboard tepi jalan ke atau dalam media sosial. Semuanya itu merupakan bentuk komunikasi untuk menyampaikan sesuatu maklumat ataupun mesej kepada masyarakat.

Iklan menjadi sebuah jalan untuk mencipta keadaan dan kedudukan budaya ataupun sosial yang sesuai dan menjadikan seseorang seperti yang diimpikan. Sebenarnya periklanan dapat membentuk atau mengubah diri individu yang akhirnya mewujudkan perasaan khayalan tentang realiti atau kenyataan. Iklan mencipta simulasi atau suatu situasi yang menyerupai situasi sebenar dengan menanamkan simbol-simbol daripada objek terhadap masyarakat (Suyanto, 2017) yang pada awalnya, menunjukkan fungsi dan kualiti material barang-barang ataupun perkhidmatan tersebut. Namun, kemudian secara perlahan-lahan iklan akan mencipta cara membuat asosiasi iaitu hubungan atau perkaitan antara objek dengan suatu gaya hidup ataupun kehidupan sosial masyarakat. Sehingga yang ditekankan dalam banyak iklan ialah asosiasi objek tersebut dengan sesuatu yang diinginkan ataupun menggambarkan hasrat masyarakat. Oleh sebab itu, iklan sangat bersifat memujuk kerana sentiasa

mampu memenuhi hasrat dan keinginan masyarakat. Sehubungan itu, periklanan secara khusus mampu mengeksploitasikan keadaan dengan memberikan imej-imej percintaan, nilai-nilai estetika, memenuhi keinginan, kecantikan serta kehidupan yang lebih baik dengan penggunaan sesuatu barangan (Featherstone, 1991).

Dalam hal ini, periklanan banyak berperanan menggambarkan identiti gender. Penggambaran visual daripada lelaki ataupun perempuan sering kali digunakan dalam iklan untuk menarik perhatian khalayak. Kebiasaannya, penampilan gender berkait tentang perilaku dan sikap seorang lelaki ataupun perempuan (Cortese, 2008). Beberapa gambaran tentang identiti gender tersebut tidak merefleksikan realiti sosial yang sebenarnya dan salah satunya berkait dengan persoalan penampilan tubuh badan. Putra (2019) menyatakan bahawa tubuh lelaki mahupun perempuan memiliki nilai jual yang tinggi di pasaran, sehingga susuk tubuh dimodifikasi untuk mendapatkan keuntungan. Dalam dunia iklan, lelaki sering kali digambarkan sebagai imej yang berotot, kekar, kacak dan kelihatan sihat. Tambah Cortese (2008) pula, keadaan ini dapat memberikan kesan yang negatif dalam kalangan lelaki seperti kurangnya keyakinan diri dan motivasi terhadap penampilan diri dan tubuh badan. Hal ini seperti yang dinyatakan oleh beberapa orang responden, misalnya Khairil menegaskan:

Iya betul, tak dapat dinafikan sekarang banyak iklan yang memaparkan model lelaki yang berbadan 'sado,' ada six pack dan ada muscle. Tak kisah

la iklan untuk produk apa-apa pun, kebanyakannya cuba tunjukkan badan lelaki yang sebegitu.

Manakala Amirul dan Umar masing-masing pula menyatakan:

Seperti iklan yang menunjukkan model perempuan yang mempunyai wajah yang cantik dan bertubuh seksi, rata-rata iklan yang ada wajah lelaki juga semestinya kacau dan menayangkan badan yang 'sado.' Amat jarang saya jumpa iklan lelaki yang perut buncit, boroi dan sebagainya. Jadi ini membuatkan ramai lelaki berfikiran supaya perlunya menjaga penampilan diri dan berusaha untuk mendapatkan tubuh yang 'sado.'

Sebelum ni, kita rasa down sikit atau kurang keyakinan diri apabila banyak iklan yang menayangkan gambar atau rupa lelaki yang 'sado.' Iyalah, sebab sebelum ni kita tak macam tu. Tapi bila dah ada cutting badan ni, perasaan tu dah berubah. Dah start rasa positif dan mula yakin dengan diri sendiri.

Pada era masyarakat pascamodenisme, iklan bukan sekadar media untuk mempromosikan sesuatu produk, tetapi juga menjadi sistem idea yang mampu mempengaruhi dan menggagaskan cita rasa atau selera masyarakat. Dalam konteks ini, Kurnia (2004) menjelaskan bahawa iklan bukan sekadar informasi mengenai produk tertentu tetapi merupakan medium

yang memaparkan tentang ideologi, gaya hidup dan imej. Suyanto (2017) juga menjelaskan iklan menjadi wadah sebagai saluran hasrat (*channel of desire*) manusia dan saluran wacana (*channel of discourse*) mengenai konsumsi dan gaya hidup. Melalui ideologi kapitalisme, iklan tumbuh dan berkembang dan munculnya stereotaip imej kemaskulinan bagi lelaki. Sehubungan itu, lelaki sering digambarkan sebagai imej yang berotot. Natiujahnya, pemaparan imej dan stereotaip kemaskulinan tersebut berupaya mempengaruhi sasaran iklan dan seterusnya meningkatkan daya beli bagi lelaki. Hasil kajian melalui pemerhatian mendapati terdapat ruang-ruang iklan yang ditampal di dalam pusat kecergasan atau gimnasium yang memaparkan gambar lelaki 'sado' serta produk-produk untuk membesarkan otot badan. Malah, terdapat juga beberapa buah pusat gimnasium yang menjual dan mempromosi pelbagai suplemen kepada pelanggan, antaranya Bodyprime Gym dan Gymbett Fitness.

Penyebaran imej-imej komoditi dan perkhidmatan membina badan melalui iklan telah mencipta dunia mimpi yang tersendiri kepada pengguna sehingga mereka menggunakan komoditi dan perkhidmatan yang ditawarkan oleh pihak industri. Dalam hal ini, Featherstone (1991) menyatakan bahawa dalam dunia komoditi, barang-barang yang dipamerkan disuap menerusi ilusi separuh sedar yang sentiasa berubah-ubah sehingga objek kelihatan bercerai daripada konteks dan subjek. Dunia komoditi menjadi tempat di mana segala mimpi dikumpulkan secara separuh sedar

dan dibentuk menjadi keinginan. Seterusnya mimpi-mimpi tersebut akhirnya dipenuhi oleh aktiviti konsumsi dan pengguna dapat menikmati segala komoditi ataupun perkhidmatan tersebut. Dengan perkataan lain, proses komodifikasi barang ataupun imej-imej yang ditanamkan oleh golongan kapitalis mampu membentuk mimpi atau impian sehingga kebanyakan responden dalam kajian ini terus-menerus menjadi pengguna tegar dengan melakukan tindakan konsumsi atau membeli barang-barang dan perkhidmatan yang berasaskan imej 'sado.' Selaras dengan hasil kajian lepas mengenai identiti (Bakar, 2022; Messerschmidt, 2019), dapatan kajian ini menunjukkan bahawa representasi stereotaip kemaskulinan kerap digambarkan dalam iklan lelaki yang tertumpu kepada penampilan dan kekuatan fizikal.

Terdapat beberapa perkara yang dilakukan oleh responden untuk mendapatkan tubuh badan yang 'sado' dan kekar antaranya melakukan latihan kecergasan di gimnasium, mengamalkan cara pemakanan yang sihat, pengambilan makanan tambahan atau sumber protein serta tidur yang mencukupi. Untuk menjadikannya sebagai realiti, bukanlah sesuatu perkara yang mudah kerana melibatkan kos atau modal yang tinggi. Perkara ini dinyatakan oleh Izat, yang mempunyai sumber kewangan yang terhad, selain hanya merupakan seorang pelajar:

..Saya pergi gym sekurang-kurangnya tiga kali dalam seminggu, tapi ikut kepada masa free yang saya ada. Biasanya saya habiskan masa kat gym

ni antara satu hingga dua jam. Dari segi pemilihan gym pula, sudah tentu la saya pilih gym yang dekat dengan rumah dan kadar yuran yang dikenakan juga murah. Contohnya macam gym ni, harga yang dikenakan kepada saya yang jadi ahli dan juga student adalah lebih kurang RM59 sebulan. Nak buat badan ni pun makan kena jaga. Kena lebihkan ambil ayam, ikan ataupun sumber protein yang lain.

Hal ini juga dapat dibuktikan melalui pemerhatian penulis terhadap keseluruhan responden yang menggunakan pusat kecergasan atau gimnasium sebagai lokasi tumpuan utama dalam usaha mendapatkan bentuk badan yang didambakan, iaitu, sasa, berdada bidang dan penonjolan otot serta urat yang ketara. Bentuk penampilan fizikal ini secara tidak langsung dapat menambah naratif baharu mengenai kemaskulinan lelaki Melayu.

Peranan Perantara Budaya dalam Menggagaskan Idea 'Sado'

Pada dasarnya, impian atau keinginan dalam menggunakan sesuatu komoditi ataupun perkhidmatan dicipta, dibentuk dan dikembangkan secara sosial. Rata-rata responden bersetuju bahawa perantara budaya memainkan peranan sebagai agen sosialisasi dalam mempromosikan imej 'sado.' Perantara budaya berperanan mendidik (memberikan rundingan, nasihat, saranan, cadangan dan maklumat mengenai sesuatu komoditi dan perkhidmatan yang ditawarkan) dan seterusnya menanamkan

impian masyarakat terhadap penggunaan sesuatu komoditi ataupun perkhidmatan. Dalam hal ini, terdapat dua bentuk perantara budaya yang wujud dalam mempengaruhi masyarakat dalam melakukan tindakan konsumsi iaitu perantara budaya secara langsung dan tidak langsung.

Perantara Budaya Secara Langsung.

Perantara budaya secara langsung merujuk kepada individu ataupun pengusaha industri yang menjalankan urusan perniagaan mereka secara langsung dengan pengguna. Dalam konteks ini, pemilik gimnasium menjadi penghubung atau jambatan kepada pengguna. Melalui urusan secara langsung ini, segala maklumat berkaitan sesuatu komoditi dan perkhidmatan pembinaan tubuh badan dapat disalurkan secara terus kepada pengguna. Baharin dan Fikri sebagai responden menyatakan bahawa:

Pada mulanya, kami sebenarnya banyak mendapat maklumat daripada Nash sebagai owner gym ni, macam mana nak buat badan. Apa yang perlu kami buat dan protein apa yang perlu kami ambil. Jadi, dia banyak bantu la. Kalau dulu kami bermula dengan kosong, tapi sekarang banyak juga yang kami dapat daripada dia.

Syafiq pula menyatakan bahawa:

..Selain saya Google dan tengok Youtube cara nak main alat-alat gym, staff gym ni sendiri banyak bantu dan ajar saya bagaimana nak gunakan peralatan di sini. Jadi, saya dapat gunakannya dengan cara yang betul la. Bagi saya,

amat penting bagi kita untuk gunakan segala peralatan di sini dengan cara ataupun teknik yang betul supaya dapat mengelakkan diri daripada sebarang kecederaan otot atau sebagainya.

Malah perantara budaya tidak terhad kepada pengusaha komoditi dan perkhidmatan sahaja, sebaliknya pekerja-pekerja yang terlibat dalam industri penjagaan tubuh badan seperti pembantu pusat kecergasan atau gimnasium, jurulatih peribadi (*personal trainer*) dan penjual protein ataupun suplemen juga secara tidak langsung menjadi sebahagian daripada perantara budaya. Hal ini kerana mereka juga terlibat dalam memberikan maklumat dan informasi tentang sesuatu produk dan perkhidmatan yang dijual sehingga wujudnya hubungan jual beli dengan pengguna. Dalam konteks ini, Touraine (1985) menjelaskan dengan kewujudan pelbagai perantara budaya, semakin banyak barang simbolik yang ditawarkan di pasaran, semakin tinggi permintaan ke atas perantara budaya baharu yang mempunyai keupayaan untuk mengubah budaya tradisi bagi menghasilkan barang-barang simbolik serta memberikan pentafsiran yang baharu ke atas barang-barang simbolik tersebut.

Perantara Budaya Tidak Langsung.

Perantara budaya tidak langsung pula merupakan pengaliran sumber maklumat melalui kelompok media massa yang digunakan oleh golongan kapitalis untuk menjual komoditi ataupun perkhidmatan berkaitan imej 'sado' dan berotot. Kelompok

media massa ini terdiri daripada media cetak (seperti majalah, buku, surat khabar, rencana) dan media elektronik (seperti radio, televisyen, Internet). Walau bagaimanapun, hanya tiga bentuk media massa yang sering digunakan oleh kebanyakan responden bagi mendapatkan maklumat yang berkaitan dengan komoditi dan perkhidmatan tubuh badan 'sado' iaitu majalah, televisyen dan Internet.

Idea kapitalisme tentang 'sado' yang ditampilkan dalam media cetak iaitu majalah dapat mempengaruhi lelaki supaya melakukan tindakan konsumsi dalam rangka meraih pengunggulan kemaskulinan. Mengikut Adnan (2003), majalah merupakan suatu bentuk perniagaan yang menguntungkan, berbanding pada masa dahulu yang memberikan kesedaran agama dan semangat nasionalisme melalui hasil-hasil kesusasteraan. Terdapat dalam kalangan responden yang memilih majalah berunsurkan 'lelaki' sebagai sumber maklumat bagi membina tubuh badan. Jelas mereka, pemilihan majalah tersebut adalah kerana memfokuskan tentang cara menjadi seorang lelaki. Menyentuh tentang perkara ini, Hannan menjelaskan bahawa:

..Saya pilih majalah Maskulin dan Glam Lelaki sebagai rujukan mengenai trend gaya hidup lelaki terkini. Bukan saja ditunjukkan model lelaki yang berbadan sasa yang menjadi simbol kejantanan, tapi juga ada dimuatkan info-info dan juga tips yang bermanfaat tentang lelaki.

Hal ini sama seperti yang dijelaskan oleh Pramudita dan Rahim (2011) mengenai penggunaan imej-imej yang menarik dalam majalah merupakan taktik yang paling berkesan melariskan sesuatu produk, malah mampu mempengaruhi tingkah laku pembeli.

Hasil kajian ini juga mendapati bahawa televisyen menyumbang kepada pembentukan impian terhadap imej 'sado' melalui filem-filem aksi yang menonjolkan bentuk fizikal aktor yang menyerupai ahli bina badan. Seinggakan masyarakat semakin terbiasa melihat pelakon-pelakon yang mempunyai tubuh badan sasa dan berotot, misalnya Chris Evans dan Huge Jackman serta filem-filem yang memaparkan susuk tubuh Dwayne Johnson atau dikenali juga sebagai *The Rock*. Hal tersebut memberikan paradigma kepada individu agar memiliki postur tubuh yang sama seperti yang ditampilkan serta bergantung kepada interpretasi mereka dalam memahami dan mentafsirkan makna tubuh dalam filem. Perkara ini dapat dibuktikan melalui kenyataan Fattah:

..Pelakon-pelakon aksi seperti di Hollywood biasanya mereka menayangkan tubuh badan yang sasa dan ini sedikit sebanyak boleh mempengaruhi kami untuk jadi seperti mereka. Contohnya, macam Hugh Jackman, Chris Hemsworth, Vin Diesel dan lain-lain. Selain daripada bakat lakonan yang ada, penampilan mereka juga ada nilai harga yang tersendiri kerana kebanyakan watak-watak yang ada memerlukan mereka berbadan

'sado' dan cantik. Jadi, secara tak langsung memberikan inspirasi kepada kami untuk berusaha mendapatkan tubuh badan seperti mereka.

Malah dalam drama dan filem Melayu kontemporari juga memaparkan hero Melayu yang mempunyai penampilan bentuk fizikal yang sasa dan tegap. Mengikut Syed et al. (2022), berbadan sasa dan tegap menjadi suatu kemestian bagi mereka untuk mendapatkan kontrak lakonan dalam mana-mana projek drama televisyen dan filem komersial. Justeru dalam konteks ini, Stacey (2009) menyatakan bahawa gambar-gambar yang melekat di fikiran masyarakat dapat mencerminkan nilai-nilai yang mendefinisikan lelaki ideal dan keadaan tersebut menjadi justifikasi masyarakat dalam meniru penampilan yang dipaparkan. Selain itu, Assaari dan Aziz (2013) pula menjelaskan ideologi yang diselitkan oleh penulis skrip serta garapan oleh pengarah dapat menaikkan imej atau identiti individu dan kumpulan, sekali gus tidak memberikan hiburan semata-mata. Ringkasnya, hasil kajian menunjukkan perantara budaya berperanan penting dalam mendidik, menggagaskan dan mengukuhkan lagi tafsiran tentang 'sado' dalam kalangan belia.

Idea tentang 'Sado' Diperkukuhkan melalui Media Baharu

Kewujudan media baharu adalah untuk menyediakan informasi ke arah memacu perubahan serta memberikan pengaruh kepada corak kehidupan masyarakat pada

era pascamodenisme. Menurut Mokhtar et al. (2013), media baharu dapat ditakrifkan sebagai aplikasi yang pelbagai bagi menggabungkan media tradisional seperti cetak, televisyen, filem ataupun surat khabar untuk mencipta penerbitan digital lebih interaktif dan dinamik. Ia bercirikan elemen-elemen seperti akses terbuka, mesra pengguna, isi kandungan berkolaboratif, maklum balas dan penyampaian maklumat digital. Misalnya seperti dunia maya, media sosial, jurnal digital, aplikasi untuk telefon pintar, komputer tablet dan *e-readers*. Dalam hal ini jelas membuktikan bahawa media baharu sememangnya memainkan peranan yang amat penting melebihi medium-medium yang lain serta dianggap sebagai agen perubahan kepada masyarakat. Kepesatan perkembangan teknologi informasi dan komunikasi ini telah menyebabkan terjadinya perubahan secara cepat di setiap pelosok kawasan dan tempat. Media baharu sedikit demi sedikit membawa masyarakat ke arah pola budaya baharu dan mula menentukan pemikiran serta budaya perilaku masyarakat. Tanpa sedar, media baharu telah menyusun kehidupan serta menciptakan sejumlah keperluan ataupun kehendak.

Selain itu, kecanggihan teknologi Internet melahirkan pelbagai aplikasi sejajar dengan pembangunan pengetahuan yang semakin laju dan pantas. Dewasa ini, pelbagai perisian aplikasi dan web dapat digunakan dan dimanfaatkan bagi meningkatkan kemajuan dan kemodenan sesebuah masyarakat dan kawasan. Antara aplikasi media sosial yang diguna pakai oleh

masyarakat pada ketika ini ialah Facebook, YouTube, Twitter, WhatsApp dan Instagram. Penghasilan pelbagai perisian ini telah mengubah bentuk pemikiran, manakala segala maklumat dapat disampaikan secara cepat dan meluas. Kesemua aplikasi tersebut digunakan secara maksimum dalam TV Internet dan telefon pintar sebagai penghubung atau alat berkomunikasi dengan penggunanya (Hamid, 2016).

Hasil kajian menunjukkan bahawa media sosial seperti Facebook, Instagram, Twitter, WhatsApp dan YouTube dilihat begitu banyak penggunaannya dalam kalangan responden bagi mendapatkan sebarang info tentang komoditi dan perkhidmatan membina tubuh badan. Iklan-iklan yang memaparkan kemudahan gimnasium, produk-produk seperti suplemen atau makanan tambahan serta pakaian yang menonjolkan tubuh badan (*fit*) di media sosial juga berupaya mempengaruhi responden dalam meningkatkan daya beli. Seperti yang dinyatakan oleh Hafiz:

..Sebenarnya social media banyak berperanan dalam mempengaruhi saya untuk dapatkan tubuh badan yang macam ni. Melalui social media lah seperti Facebook dan Instagram saya dapat banyak gambaran dan maklumat bagaimana untuk dapatkan tubuh badan yang cantik. Malah segala produk yang berasaskan tubuh 'sado' boleh dibeli dan didapati secara online. Contohnya macam suplemen, makanan diet dan juga alatan gym. Jadi, ia memudahkan dan menjimatkan masa saya.

Tambah Faizal pula:

..Saya rasa dalam keadaan sekarang, media sosial banyak main peranan. Segala maklumat dapat kita akses dengan mudah dan cepat. Kalau dulu, nak dapatkan sesuatu info tu kena beli surat khabar atau majalah, tapi sekarang hanya di hujung jari. Semuanya boleh online.

Harlow (2012) dalam kajiannya menjelaskan bahawa media sosial seperti Facebook mempunyai kesan dalam membentuk gerakan sosial. Media sosial bukan sahaja dapat menjimatkan kos dan mempercepatkan penyebaran maklumat, bahkan juga menyediakan pelbagai perkhidmatan yang memberikan kemudahan kepada penggunanya. Manakala Rani (2019) berpandangan bahawa media sosial berperanan penting terhadap institusi sosial dan masyarakat. Ia bukan semata-mata sebagai medium perkongsian aktiviti, tetapi juga menjadi salah satu medium pencarian maklumat oleh pelbagai peringkat umur. Oleh yang demikian, hasil kajian menunjukkan media sosial berperanan dalam menyediakan maklumat yang cepat dan mudah dicapai, selain mendidik dan mengukuhkan lagi idea tentang 'sado' melalui aktiviti kepenggunaan.

KESIMPULAN

Secara keseluruhan, dapat dirumuskan bahawa pembentukan imej 'sado' bukan terbina secara semula jadi, tetapi terhasil daripada gagasan atau binaan sosial dalam masyarakat. Sebelum ini pengertian

tentang lelaki yang kuat, gagah, ataupun 'sado' disosialisasikan oleh masyarakat melalui cerita-cerita rakyat, misalnya dalam Hikayat Hang Tuah, Badang dan sebagainya. Kini, ia diberikan nilai tambah dan diperkukuhkan lagi melalui budaya pengguna. Tafsiran dan makna tentang tubuh 'sado' digagaskan atau dipengaruhi oleh periklanan, perantara budaya (seperti pemilik pusat gimnasium, jurulatih peribadi) dan juga melalui media baharu. Seperti mana hasil kajian yang diperoleh, iklan merupakan salah satu mekanisme yang paling berpengaruh kerana mempunyai kekuatan dalam memujuk keinginan dan impian pengguna terhadap produk-produk mahupun perkhidmatan yang berasaskan imej 'sado'. Selain hasil kerja golongan kapitalis yang menciptakan pasaran melalui proses komodifikasi, perantara budaya seperti pemilik gimnasium, jurulatih peribadi dan kelompok media baharu juga dapat mendidik dan membantu merealisasikan imej yang menjadi impian dalam kalangan masyarakat. Malahan berupaya mewujudkan tingkah laku membeli ke atas barang-barang ataupun perkhidmatan yang ditawarkan dalam kalangan masyarakat. Justeru, dapat dikatakan bahawa semakin besar pengaruh komodifikasi, maka semakin giat pembentukan imej 'sado' tersebut. Dalam perkataan lain, tingkah laku konsumsi akan semakin kerap dilakukan demi menampilkan imej 'sado' tersebut.

Implikasi dan Limitasi Kajian

Dalam konteks akademik, kajian ini memberi sumbangan terhadap korpus ilmu

terutama dalam perbincangan mengenai pembentukan tubuh badan 'sado' dan kaitannya dengan budaya pengguna. Hal ini kerana kajian yang berkaitan dengan penampilan tubuh badan dan budaya pengguna masih kurang dilakukan. Justeru, kajian ini dapat menampung lompong ilmu dan pada masa yang sama menambah korpus ilmu berkaitan fenomena tersebut secara lebih mendalam. Selain itu, kajian ini berupaya memberikan implikasi teoretikal iaitu dengan mengaplikasikan teori budaya pengguna. Hasil ujian teori tersebut dapat memperkayakan data dan menunjukkan kerelevanan dalam memberikan penjelasan berkaitan isu pembentukan tubuh badan dan budaya kepenggunaan di Malaysia. Manakala dari aspek praktis pula, kajian ini dijangka dapat memberi maklumat yang berguna mengenai pengaruh komodifikasi dan secara tidak langsung dapat mendidik dan memberikan pendedahan kepada masyarakat terhadap usaha golongan kapitalis dalam memanipulasi ciri-ciri lelaki untuk melariskan sesuatu produk. Walau bagaimanapun, terdapat kesan positif dan negatif terhadap pengaruh golongan kapitalis tersebut. Dari sudut kesan positif, ia dapat meningkatkan motivasi masyarakat atau pengguna untuk terus bekerja keras bagi meningkatkan sumber kewangan. Manakala dari sudut negatif, pengguna tidak lagi dapat membezakan antara keperluan dengan kehendak ketika membelanjakan wang demi memenuhi keinginan ke atas barang-barang dan perkhidmatan yang berasaskan imej 'sado.'

Akhirnya, limitasi kajian ini hanya tertumpu kepada etnik Melayu sahaja dan menyebabkan skop kajian menjadi sangat terhad. Sehubungan dengan itu, penyelidikan ini berpotensi diterokai lebih jauh pada masa akan datang dengan melibatkan semua etnik di Malaysia supaya data lebih menyeluruh dan dapat menunjukkan kepelbagaian kepercayaan atau tradisi mengenai penampilan tubuh badan lelaki. Selain itu, kajian perbandingan antara semua etnik juga akan menjadikan penyelidikan ini lebih menarik dan seterusnya menjadi panduan kepada semua pihak pada masa hadapan.

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Bridging the Gap in the Second Language Classroom: A Guideline of L1 Utilisation

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ABSTRACT

Utilising first language (L1) in the second language (L2) classroom is a delicate matter amongst language educators and researchers. Despite its rarity in teacher training programs, manuals, or teaching conferences, establishing an L2-only classroom without using L1 can be challenging, particularly when the students and teachers share the same L1. This study explores the utilisation of specific micro-functions of L1 (Bahasa Melayu) in teaching L2 (English) and proposes a guideline for L2 teachers to systematically use L1 in the classroom. The study is guided by relevant aspects of the common underlying proficiency theory, sociocultural theory, affective filter hypothesis, mother tongue as a reference theory, and a combination of L1 frameworks by L2 scholars. Eight teachers from four districts in Pahang, Malaysia, recorded their English lessons and participated in post-lesson interviews. The analysis of the lessons and interviews revealed that most teachers used L1 to help them teach English, especially to low-proficiency students. The study identifies 26 useful micro-functions of L1 that are combined to form the guideline. This reference point is essential for L2 teachers to ensure the appropriate use of L1 in teaching L2.

Keywords: Bahasa Melayu, English, L1, L2, low-proficiency students, micro-functions of L1

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INTRODUCTION

According to the UNESCO Institute for Statistics (n.d.), first language (L1) is acquired during childhood within the home environment, also known as the mother tongue or native language. On the other hand, second language (L2) refers to the second or foreign language that is being studied (Nordquist, 2020) or a societally

dominant language that plays essential roles in education, employment, and other communication purposes (Saville-Troike, 2012). In the context of this study, L1 refers to Bahasa Melayu (BM), which is spoken by one of the predominant groups in Malaysia, the Malays. Conversely, L2 refers to the English language, the country's second most important language.

Concerning the use of L1 in L2 learning, there are two major approaches: monolingual and bilingual (Thomas et al., 2018). The monolingual approach highlights the importance of providing maximum exposure to the target language (TL), and avoiding L1 altogether or restricting its use in teaching (Tekin & Garton, 2020). The supporters of this principle believe that L1 could interfere with the process of learning L2 (de la Fuente & Goldenberg, 2020; Tsagari & Georgiou, 2016). Although the traditional method of teaching L2 has prioritised the monolingual approach, there is a growing interest in the use of L1 in the classroom as a result of recent pedagogical research (ElJish et al., 2022). Using L1 in the L2 classroom has been proposed as a pedagogy that can offer positive results to counter monolingual assumptions about the negative effect of the language (de Oliveira & Jones, 2023).

Contrary to the monolingual method, the bilingual method, developed by C.J. Dodson, commonly refers to an approach in which the students learn L2 within the framework of L1 (Enama, 2016). The bilingual approach acknowledges the constructive aspects of L1 and views it

as an essential component in L2 teaching and learning as it could serve pedagogical, discursive or social roles similar to TL functions (Altun, 2021; Levine, 2014). The student's prior knowledge in L1 can facilitate the formulation of new rules in the TL by tapping into their language schemata (Dang, 2018) concepts, vocabulary, word cognates and grammatical structures (Ellis, 2008; Kakar & Sarwari, 2022). Apart from helping students at the early stages of L2 learning (Wang, 2022), L1 can alleviate their anxiety in processing the TL input and eventually expedite their learning process (Auerbach, 1993).

In addition to the advantages of L1, the bilingual approach also concentrates on its functions in the L2 classroom. There are two main divisions of language functions: micro functions, which refer to specific language uses, and macro functions, which serve general usages (Finch, 2003; Sana, 2022). In the L2 classroom, communication and interaction between teachers and students are underpinned by the micro-functions of language (Canagarajah, 1995).

This study aims to gain a comprehensive understanding of the utilisation of the micro-functions of L1 (BM) by L2 (English) teachers by answering the following research questions:

1. How do teachers use the micro-functions of BM in teaching English in terms of Content Transmission, Classroom Management, and Social and Interpersonal domains?
2. How useful are the micro-functions of BM in teaching English in

terms of Content Transmission, Classroom Management, and Social and Interpersonal domains?

3. Which micro-functions can be used to formulate a guideline to systematically utilise L1 in an L2 classroom?

elements from four theories and a framework (of micro-functions of L1) from L2 scholars. The four reputable theories are the common underlying proficiency (CUP) theory by Cummins (2000), the sociocultural theory by Vygotsky (1978), the affective filter hypothesis by Krashen (1982), and the mother tongue as a base of reference theory by Butzkamm (2003).

Conceptual Framework of the Study

The study's framework incorporates

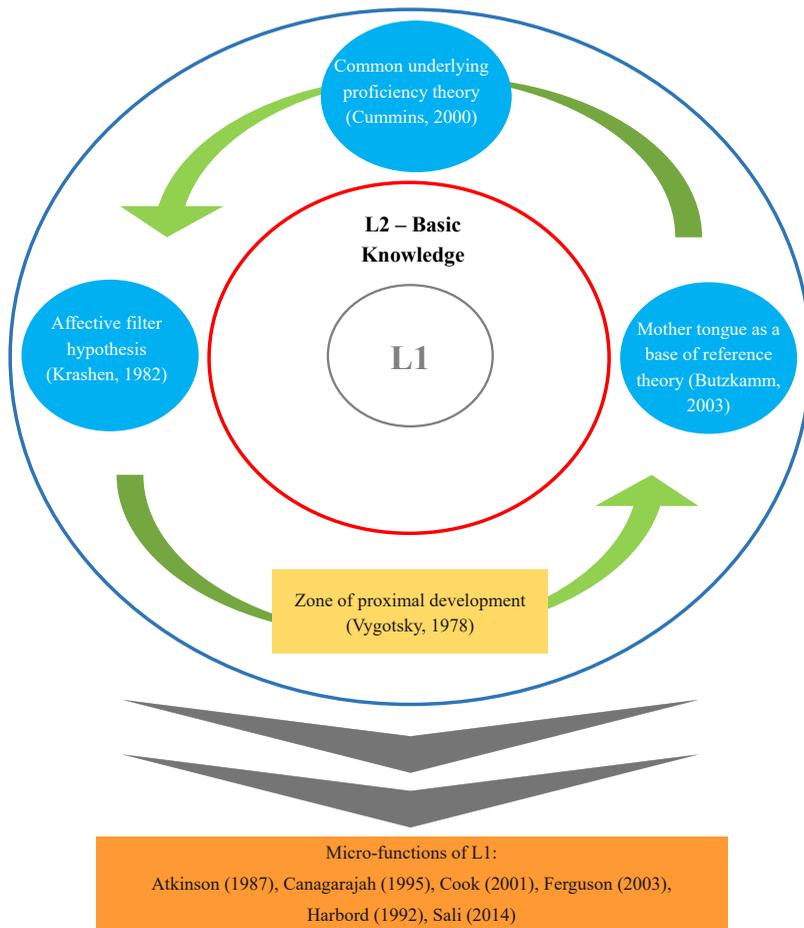


Figure 1. The conceptual framework of the study
Source: Romli (2022, p. 10)

Figure 1 illustrates the correlation between L1 use in L2 classrooms, the four theories and the micro-functions of L1. Cummins' CUP theory suggests

that L2 students' ideas come from their L1 language, in which they are most proficient (Cummins, 2000; Goodrich & Lonigan, 2017). Meanwhile, the use of L1 by teachers to support L2 learning reflects the scaffolding principle in sociocultural theory. The scaffolding concept explains the necessary steps for students to progress from their current level of understanding to their potential level of understanding (Salem, 2016). At the same time, it is imperative that teachers closely monitor their students' affective filters to guarantee optimal absorption of TL input. Students with lower affective filters are more likely to absorb TL knowledge, while students with higher affective filters may face difficulties learning the language (Dewaele et al., 2018).

Hence, establishing a non-threatening environment is crucial to maintaining low-affective filters among the students (Mehmood, 2018). Lastly, the mother tongue as a base of reference theory outlines 10 maxims to justify the systematic use of L1 without neglecting the importance of providing maximum TL input in the classroom (Butzkamm, 2003). For L2 language learning to be successful, L2 teachers must consider students' prior L1 knowledge, provide adequate assistance to enhance their learning, maintain low affective filters, and acknowledge the importance of systematic L1 use in the classroom. By doing so, teachers can improve their students' L2 achievement in the four language skills: speaking, listening, reading, and writing (Blake, 2016).

The second component of the framework of this study is formed based on a combination of 43 micro-functions of L1 proposed by six L2 scholars: Atkinson (1987), Canagarajah (1995), Cook (2001), Ferguson (2003), Harbord (1992), and Sali (2014). The scholars were chosen based on the similarities of their categorisations of the micro-functions, which focused on three main areas: content lessons, class management, and social interactions with the students. Atkinson lists the micro-functions of L1 into the first two categories, while Cook (2001) suggests two specific domains: conveying meaning/language functions (grammar) and organising the class. Similarly, Canagarajah (1995) separates the L1 functions into content transmission and classroom management. In addition, Ferguson (2003) organises the micro-functions of L1 into curriculum access, management of classroom discourse, and interpersonal relations in the classroom. Lastly, Harbord (1992) assigns three categories for L1 usages: facilitation of teacher-student communication, facilitation of teacher-student relationship and facilitation of L2 learning.

The Formation of the Framework of the Micro-Functions of L1

In this study, the framework of the micro-functions of L1 was developed in stages, as depicted in Figure 2.

During the initial stages of framework development, it was crucial to identify the sources of the micro-function of L1 to establish a strong foundation for the study.

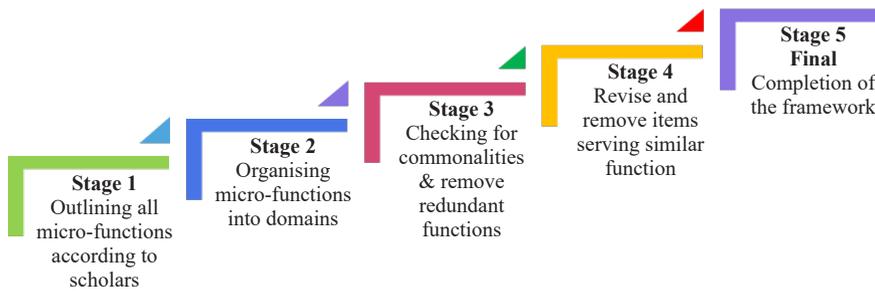


Figure 2. The stages of developing the framework of the micro-functions of L1
 Source: Romli (2022, p. 56)

Seventy-three micro-functions of L1 were identified from Atkinson (n-9), Cook (n-6), Ferguson (n-10), Canagarajah (n-21), Sali (n-12), and Harbord (n-15).

In the second stage, the researcher assigned the micro-functions of L1 to their respective domains. Content Transmission involves L1 functions on delivering language knowledge; Classroom Management, which encompasses functions related to managing students behaviour and classroom matters; and Social and Interpersonal, which addresses social aspects with students. In the third stage, the researcher examined each micro-function and removed any components that showed similar traits. In the fourth stage, a thorough check was conducted to identify any micro-functions

that still shared similar characteristics. The final version of the framework only includes 43 micro-functions of L1. These micro-functions of L1 were further organised into three major domains: Content Transmission, Classroom Management, and Social and Interpersonal (Table 1).

Table 1 shows that the final version of the framework consists of three domains, namely Content Transmission (19 micro-functions), Classroom Management (14 micro-functions) and Social and Interpersonal (10 micro-functions).

Content Transmission domain contains 19 micro-functions of L1 for L2 teachers. The functions are eliciting, reviewing content, translating words and sentences, defining terms, explanation/reinforcement

Table 1
 The final version of the micro-functions of L1 based on Atkinson (1987), Canagarajah (1995), Cook (2001), Ferguson (2003), Harbord (1992), and Sali (2014)

Source	Content Transmission	Source	Classroom Management	Source	Social & Interpersonal
Sali	Eliciting (meaning)	Sali	Monitoring	Sali	Establishing rapport
	Review content of (text/lesson)				Drawing upon shared expression
	Translating words and sentences				

Table 1 (Continue)

Source	Content Transmission	Source	Classroom Management	Source	Social & Interpersonal	
Canagarajah	Definition of terms	Canagarajah	Opening the class	Canagarajah	Encouragement	
	Explanation/reinforcement		Discuss lesson direction/plan		Compliment	
	a) Repetition		Request help		Ferguson	Create greater personal warmth
	b) Reformulation		Managing discipline			
	c) Clarification		Teacher commands		Encourage and elicit students' participation	
d) Exemplification	Teacher warning/scolding/advice					
	Relate aspects/ideas to be culturally relevant	Ferguson	To gain students' attention and focus	Harbord	Chatting in L1 before the start of the lesson to reduce student anxiety	
Ferguson	Clarify the meaning of certain sections of text	Harbord	Discussion of classroom methodology		Telling jokes in L1	
	Differentiate text by providing comment		Giving instructions for a task to be carried out	Sali	Talking about learning	
Harbord	Explaining a grammatical item		Asking or giving administrative information	Canagarajah	Unofficial interactions (off the record)	
	Checking comprehension of a listening or reading text		Giving individual help to a weaker student			
	Checking comprehension of a structure		Comparison between students' work or discussion on work done			
	Allowing or inviting students to give a translation of a word (comprehension check)	Cook	Teacher use of L1 for testing			
	Eliciting vocabulary by giving the L1 equivalent					
	Comparison with L1 for irrelevant/illogical translation					

Table 1 (Continue)

Source	Content Transmission	Source	Classroom Management	Source	Social & Interpersonal
Atkinson	Presentation and reinforcement of language structure/ concept				
	Development of useful learning strategies				

by repetition, reformulation, clarification and exemplification. The other following functions are relating cultural aspects, clarification, differentiation of text, explaining a grammatical item, checking comprehension (text or structure), allowing, eliciting vocabulary by L1 equivalent, comparison with L1 for irrelevant/illogical translation, presentation and reinforcement of language structure and development of useful learning strategies.

The classroom Management domain has 14 micro-functions of L1, namely monitoring, opening the class, discussing lesson direction/plan, requesting help, managing discipline, giving commands, teacher warning/scolding/advice, gaining students' attention and focus, discussing classroom methodology, giving instructions for tasks, managing administrative information, giving individual help to a weaker student, comparing students' work or discussing tasks and using L1 for testing. The third domain, Social and Interpersonal, consists of establishing rapport, drawing upon shared expression, encouraging, complimenting, creating greater personal warmth, encouraging and eliciting students' participation, chatting in L1, telling jokes, talking about learning and unofficial interactions.

Studies on L2 Teachers' Use of L1

Research on the use of L1 by L2 teachers has provided valuable insights into their teaching practices, including the use of micro-functions of L1 in the classroom. Notably, studies like Jumal et al. (2019) observed the use of L1 (BM) in L2 (English) classes. They found L2 teachers utilising L1 to support teaching, particularly for explaining words, teaching pronunciation and for interpersonal reasons. Their findings resonate with Ong and Tajuddin (2020), Olmez and Kirkgoz (2021), and Tong et al. (2022). Among the recorded instances of English teachers using BM was to enhance students' comprehension, especially in delivering the lesson content.

Some studies reported on the effectiveness of using L1 to help L2 students in their learning process. Tuyen and Van (2019) stated that using L1 improved vocabulary learning, linguistic accuracy and writing quality. Their findings are similar to a research study by de la Fuente and Goldenberg (2020). It was observed that the group that received controlled L1 treatment performed better in both speaking and writing assessments than the group that did not incorporate L1 in the lesson. In relation, M. Zhang (2018) reported that

L1 helped students to write significantly longer and more error-free clauses, while Navidinia et al. (2020) found that students in the experimental group which allowed the use of L1, achieved better results in the post-test compared to the controlled group that excluded the L1.-

Besides that, various studies identified different numbers of micro-functions of L1 used by L2 teachers in their classrooms. For example, Olmez and Kirkgoz (2021) and Shariati (2019) reported 4 micro-functions, while Svensk (2020), Ong and Tajuddin (2020), Tan and Low (2017), Cakrawati (2019), and Paramesvaran and Lim (2018) noted 13, 11, and 12 functions of L1 employed by teachers, respectively. Based on their research, it was discovered that L2 teachers frequently utilised L1 to teach lesson content effectively and used less L1 to manage the classroom or for social purposes.

Although many research studies reported that the main reason for L2 teachers to use L1 was to help low-proficiency students (Paramesvaran & Lim, 2018; Y. Zhang, 2022), some L2 teachers were found utilising L1 utilising-proficiency learners (Bozorgian & Luo, 2019; Tuyen & Van, 2019). Yussof and Sun (2020) suggested that teachers' language habits could influence the switching to L1. This phenomenon might elucidate why L2 teachers in Bozorgian and Luo's (2019) research resorted to a large proportion of L1 even when teaching high-proficiency students as well as L2 teachers in Tuyen and Van's study (2019) who employed almost 80% of L1 during

vocabulary lessons. These teachers may not have the awareness or knowledge on how to use L1 systematically, which resulted in its high usage.

A study by Ngan (2018) found that none of the L2 teachers understood how to use L1 in L2 teaching, indicating a lack of clear guidance on this issue. In most L2 classrooms, teachers are urged to use TL and avoid L1 to ensure maximum exposure to the language (Lightbrown & Spada, 2019). Therefore, educating teachers on the appropriate use of L1 in the teaching process is essential. By adopting a principled approach to incorporating L1, teachers can become fully aware of the optimal times and methods for using the language (de la Fuente & Goldenberg, 2020; Levine, 2014; Ong & Tajuddin, 2020). Hence, the present study aims to examine the usage of 43 micro-functions L1 by L2 teachers to provide insights into the systematic use of L1 in the teaching process and to bring awareness to the issue.

METHODOLOGY

This study involved eight English teachers from four districts in Pahang. The state was chosen since Pahang contains a significant number of schools in rural areas compared to other states in West Malaysia. According to recent statistics, there are 470 rural schools located in Pahang out of a total of 1995 rural schools in Peninsular Malaysia (Ministry of Education Malaysia, 2022). In most rural areas, BM is commonly used as the main language for administration, business, and education, especially in national schools, instead of English.

The study employed a qualitative research design, which gathered data from audio recordings of lessons semi-structured interviews with the teachers. Table 2 displays data from eight Malay English teachers, six females and two males, who taught English in national secondary schools where most teachers and students are Malays. Their ages ranged from 30 to 45 years old, with six to 16 years of teaching experience in English. Teacher 1, Teacher 2,

and Teacher 7 recorded their Form 1 classes, while Teacher 6 recorded a Form 2 class. Teacher 8 selected Form 3, and Teacher 4 recorded a Form 4 class. Teacher 3 and Teacher 5 recorded their Form 5 classes. Out of all the participants, only Teacher 2 rated her students as having high or intermediate proficiency. The other teachers noted their students as having mixed proficiency levels, ranging from low to intermediate.

Table 2
Information about English teachers

Teacher	G	Age (years)	Ethnicity	Teacher's L1	Teaching experience (years)	Teacher's class	Number of students	Proficiency levels
Teacher 1	F	31	Malay	BM	6	Form 1	26	Low
Teacher 2	F	42	Malay	BM	16	Form 1	24	High & Intermediate
Teacher 3	F	39	Malay	BM	13	Form 5	22	Intermediate
Teacher 4	M	37	Malay	BM	12	Form 4	24	Intermediate & Low
Teacher 5	F	35	Malay	BM	10	Form 5	19	Mixed proficiency
Teacher 6	M	33	Malay	BM	8	Form 2	26	Intermediate and Low
Teacher 7	F	32	Malay	BM	7	Form 1	27	Mixed proficiency
Teacher 8	F	40	Malay	BM	15	Form 3	25	Low proficiency

Purposeful sampling was used to select the participants for the qualitative data. This method involves deliberate selection of participants to gain a comprehensive understanding of the studied phenomenon (Creswell & Creswell, 2018). In this case, the focus was on how English teachers use the micro-functions of L1 (BM) to teach L2 (English). The participants shared two

common traits: they taught in national secondary schools, and secondly, most of their students were Malays who identified BM as their L1. The researchers had initially planned to involve more teachers from other districts, but data saturation was reached with the eight participants from the fourth district.

Instrumentation

Two instruments were utilised to utilise qualitative data: the audio-lesson checklist and the interview protocol. The audio-lesson checklist was developed based on the 43 micro-functions of L1, while the interview protocol contained five items adapted from the studies by Selamat (2014) and Romli (2015) and the framework of the micro-functions of L1.

Data Collection and Analysis

The first step in collecting qualitative data was to record the teachers' lessons. Audio recorders and smartphones were used to record the teachers' lessons and identify the micro-functions of L1 during the teaching process. Each teacher was required to self-record their lessons using audio recording devices provided by the researcher or the voice recorder application on their smartphones. The teachers agreed to record themselves while delivering their lessons to ensure they could teach in a natural way. Each teacher recorded three (one-hour) English lessons from the same class in three separate phases. Hence, 24 audio-recorded lessons from eight English teachers were transcribed and used as references during interview sessions at the teachers' schools.

The English teachers were interviewed to reassess their use of micro-functions of L1 during the lessons. The lessons and interviews were transcribed into qualitative data analysis software (NVivo version 12). In total, 32 verbatim transcription files (24 from recorded lessons and eight from interviews) were thematically analysed according to the research framework and the interview protocol.

RESULTS

Teachers' Utilisation of the Micro-functions of L1: Analysis of the Teachers' Lessons Transcriptions

The lesson transcriptions demonstrated significant findings regarding how the English teachers utilised the micro-functions of L1. It was discovered that the eight English teachers used 27 micro-functions of L1 based on audio analysis. Of the functions, 13 were for Content Transmission, nine for Classroom Management, and five for Social and Interpersonal skills. Most teachers used micro-functions in the Content Transmission domain more frequently than those in other categories, as shown in Table 3. The most used functions include eliciting, translating words and sentences, and providing explanations or clarifications as a reinforcement tool.

Table 3
The micro-functions of L1 and the occurrences (content transmission domain)

No of function	Content transmission	T1	T2	T3	T4	T5	T6	T7	T8	Total usage (Rank of importance)
1	Eliciting (meaning)	39	4	24	15	6	8	15	28	139
2	Translating words and sentences	29	10	8	25	15	4	7	37	135

Table 3 (Continue)

No of function	Content transmission	T1	T2	T3	T4	T5	T6	T7	T8	Total usage (Rank of importance)
3	Explanation/reinforcing by clarification	12	2	6	3	13	3	8	17	64
5	Review content of (text/ lesson)	3	3	5	2	4	9	5	7	38
6	Explanation/reinforcing by exemplification	2	1	8	1	9		4	3	28
7	Explaining a grammatical item	1					16			17
8	Clarify the meaning of certain sections of text	4	1		2	3	3	1	2	16
9	Checking comprehension of a listening or reading text	3	1	4	5					13
10	Relate aspects/ideas to be culturally relevant			8		1			1	10
12	Explanation/reinforcing by repetition		1	4	2					7
13	Allowing or inviting students to give a translation of a word as a comprehension check	3								3
14	Explanation/reinforcing by reformulation		1					1		2
15	Checking comprehension of a structure (phrase or sentence)					1	1			2
4	Definition of terms									
11	Differentiate text by providing comment									
16	Eliciting vocabulary by giving the L1 equivalent									
17	Comparison with L1 for irrelevant/illogical translation									
18	Presentation and reinforcement of language structure/ concept									
19	Development of useful learning strategies									

With regard to the first domain, the English teachers used micro-functions of eliciting, translating words and sentences, explanation by clarification, reviewing the content of (text/lesson), explanation by exemplification, explaining a grammatical item, clarifying the meaning of certain sections of text, checking comprehension of a listening or reading text, relate aspects/ ideas to be culturally relevant, explanation

by repetition, allowing or inviting students to give a translation of a word as a comprehension check, explanation/ reinforcing by reformulation and checking comprehension of a structure (phrase or sentence).

In the Classroom Management domain, the frequency of L1 use was significantly lower compared to the Content Transmission domain.

Table 4
The micro-functions of L1 and the occurrences (classroom management domain)

No of function	Classroom management	T1	T2	T3	T4	T5	T6	T7	T8	Total usage (Rank of importance)
20	Teacher commands	9	2	3	5	3	8	8	7	45
24	Giving individual help to a weaker student	11		1		4	3	17	3	39
25	Giving instructions for a task to be carried out	18	3	1	1		5	6	3	37
26	To gain students' attention	14	3	2	2	2	4	1	5	33
27	Teacher warning/scolding/ advice	4	2			1	1	3	10	21
29	Monitoring	1						1		2
30	Comparison between students' work or discussion on work done						1		1	2
31	Managing discipline	1								1
32	Asking or giving administrative information						1			1
21	Opening the class									
22	Discuss lesson direction/plan									
23	Request help									
28	Discussion of classroom methodology									
33	Teacher use of L1 for testing									

Table 4 demonstrates that the teachers utilised BM in their classrooms by giving commands, providing individual help to a

weaker student, giving instructions for a task, gaining students' attention, using a warning tool, monitoring the students, comparing

students' work, managing discipline and asking or giving administrative information.

Table 5 shows that English teachers employed a limited number of functions from the Social and Interpersonal domains, namely encouragement, building rapport,

talking about learning, unofficial interactions and drawing upon shared expression.

Table 6 provides examples of how English teachers used their L1 in three domains.

Table 5
The micro-functions of L1 and the occurrences (social and interpersonal domain)

No of function	Social & interpersonal	T1	T2	T3	T4	T5	T6	T7	T8	Total usage (Rank of importance)
34	Encouragement	5	2				3			10
35	Establishing rapport	3	1	2						6
36	Talking about learning						4			4
42	Unofficial interactions (off the record)	1					1	1	1	4
43	Drawing upon shared expression		1				1	1		3
37	Compliment									
38	Create greater personal warmth									
39	Encourage and elicit students' participation									
40	Chatting in L1 before the start of the lesson to reduce student anxiety									

Table 6
Examples of the micro-functions of L1 in the teachers' lessons (content transmission domain/classroom management and social and interpersonal domains)

Micro-function	Teacher (T)	Reference (Evidence)
CT1: Eliciting	T1	• <i>Berapa hari dalam February?</i> [Lesson 1]
	T2	• <i>Tayar ada ape?</i> [Lesson 1]
	T3	• <i>Pernah ke buat?</i> [Lesson 2]
CT3: Translating words and sentences	T4	• <i>Polite is sopan.</i> [Lesson 2]
	T5	• <i>Abusive parents, maybe? Parents yang suka pukul anak.</i> [Lesson 3]
	T6	• <i>Ni sukarelawan.</i> [Lesson 1]
CT7: Explanation or reinforcement by Clarification	T7	• <i>Dia cium mak dia lah.</i> His mother okay. [Lesson 2]
	T8	• <i>Fifty feet, how tall? Lima puluh kaki.</i> [Lesson 2]

Table 6 (Continue)

Micro-function	Teacher (T)	Reference (Evidence)
CT2: Review content of (text/lesson)	T4	• The second one, <i>yang kedua</i> . [Lesson 3]
	T5	• Form three <i>berapa perenggan?</i> [Lesson 1]
	T6	• Number seven, <i>bawah sekali</i> . [Lesson 3]
CM25: Teacher Commands	T1	• <i>Cepat. Baca cepat</i> . [Lesson 1]
	T2	• Don't show it to your friend. <i>Tutup</i> . [Lesson 3]
	T3	• <i>Tengok buku awak</i> , choose one essay that you did before, continuous writing. [Lesson 3]
CM27: To gain students' attention and focus	T4	• Listen class, <i>dengar sini</i> . [Lesson 1]
	T5	• This is your territory. Okay, <i>tengok sini</i> . [Lesson 2]
	T6	• <i>Nak dengar lagi ke?</i> [Lesson 3]
SN36: Teacher encouragement	T1	• If you can get A, <i>lagi bagus</i> . [Lesson 1]
	T2	• <i>Takpe</i> Syikin, practice. [Lesson 3]
SN34: Establishing rapport	T1	• Exercise book <i>sayang</i> . [Lesson 1] • Naim, help Naya over here. <i>Kesian Naya</i> . [Lesson 2]

The Usefulness of the Micro-Functions of L1: Results of Semi-Structured Interviews-Summary

Full interview responses can be accessed in the appendix section (Refer to Appendix A to E).

Table 7 shows the summary of teachers' responses towards interview questions.

Table 7
Summary of teachers' responses towards interview questions

No	Interview question	Teachers' responses
1	Based on the lessons' transcriptions, do you think the micro-functions of BM (that you have used in the lessons) are useful? How about the other functions in the framework?	All eight English teachers unequivocally agreed that the micro-functions of BM utilised during the recorded lessons were exceptionally useful. Without a doubt, these functions played a crucial role in helping them deliver the content lessons effectively and made it easier for the students to understand the content.
2	Based on the lessons and your experience, how useful is it to use the micro-functions of BM to teach English? Are there any other strategies to overcome the problem?	Using micro-functions of L1 in teaching English is undeniably useful, particularly with students who have low English proficiency, as confirmed by all the teachers.
3	Were you exposed to any forms of guidelines on how to use BM (L1) to teach English (L2)? How do you feel about the guidelines to use L1 to teach L2?	All the teachers reported not receiving any guidance on using L1 in teaching English careers during their tertiary education or training program.

Table 7 (Continue)

No	Interview question	Teachers' responses
4	Do you spontaneously use BM for the micro-functions, or do you plan beforehand?	The English teachers believed that the use of the Bahasa Malaysia language in their teaching happened naturally, and they had not planned to use it before their lessons. They understood that the second language (L2) should be taught using English and not Bahasa Malaysia.
5	Which proficiency level of students benefits the most from the use of BM? Why?	Most English teachers believed that BM benefited low-proficiency students.

The interview session with the teachers started with the first question, and it was noted that all of them agreed that the majority of the micro-functions of BM utilised in the lessons were effective in conveying the content lesson and enhancing students' comprehension. They emphasised that they mainly used BM because a significant proportion of students in their classes had an intermediate or low English proficiency level. Interview Question 2 showed that many teachers found using BM's micro-functions helpful when teaching English, especially to low-proficiency students.

Based on the responses gathered for Interview Question 3, most teachers admitted to never having received any exposure to guidelines on how to use L1 in teaching L2. Nonetheless, they believed that having clear guidelines on how to use L1 was crucial and that English teachers needed to be made aware of this issue. Despite this, they had unwavering support for maximising TL and minimising L1 in the L2 classroom.

Regarding Interview Question 4, the English teachers believed incorporating BM into their teaching was unplanned and occurred naturally during their lessons. All teachers expressed the same view about Interview Question 5 during the interviews. They believed that the use of BM could be helpful for students with lower proficiency levels. Additionally, using L1 could also benefit students with low proficiency levels in good classes, as each class may have students with varying proficiency levels.

Micro-functions of L1 for L1 Guideline: Useful Micro-Functions of L1 (Semi-Structured Interview)

The eight English teachers assessed their use of L1 and identified useful micro-functions for teaching English. Out of the 27 micro-functions they applied in their lessons, only 26 were deemed useful based on their total usage and the rank of importance (Refer to Tables 3, 4, and 5). A final guideline for the micro-functions of L1 was created, which contains these 26 micro-functions of L1 (Table 8).

Table 8

Useful micro-functions of L1 in the teachers' lessons (content transmission domain/ classroom management and social & interpersonal domains)

Content transmission	Classroom management	Social and interpersonal
Eliciting (meaning)	Teacher commands	Encouragement
Translating words and sentences	Giving individual help to a weaker student	Establishing rapport
Explanation/reinforcing by clarification	Giving instructions for a task to be carried out	Talking about learning
Review content of (text/lesson)	To gain students' attention	Drawing upon shared expression
Explanation/reinforcing by exemplification	Teacher warning/scolding/ advice	
Explaining a grammatical item	Monitoring	
Clarify the meaning of certain sections of text	Comparison between students' work or discussion on work done	
Checking comprehension of a listening or reading text	Managing discipline	
Relate aspects/ideas to be culturally relevant	Asking or giving administrative information	
Explanation/reinforcing by repetition		
Allowing or inviting students to give a translation of a word as a comprehension check		
Explanation/reinforcing by reformulation		
Checking comprehension of a structure (phrase or sentence)		

A Guideline for Utilising the Micro-Functions of L1 in the L2 Classroom

Figure 3 presents the L1 guideline comprising 26 micro-functions of L1, which are sorted into three domains: Content Transmission, Classroom Management, and Social and Interpersonal. The first domain contains 13 micro-functions of L1, namely elicit (meaning), translate (words, phrases, or sentences), explain/reinforce by clarification, review content of (text/lesson),

explain/reinforce by exemplification, explain a grammatical item, and clarify certain sections of text. The other chosen functions from Content Transmission are to check comprehension of (listening/reading) text, relate culturally relevant aspects/ideas, explain/reinforce by repetition, invite students to give an L1 translation, explain/reinforce by reformulation, and check comprehension of a structure (phrase/sentence).

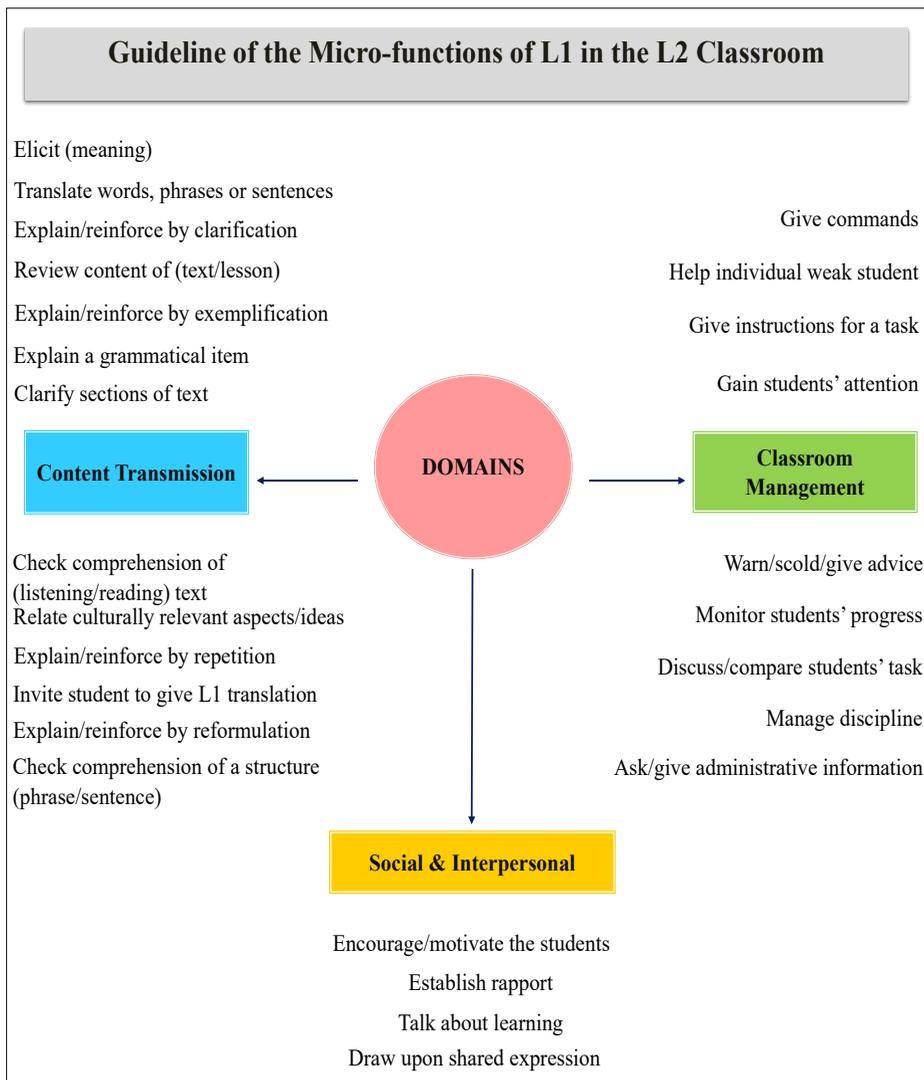


Figure 3. The guideline of the micro-functions of L1 in the L2 classroom
Source: Romli (2022, p. 346)

In the Classroom Management domain, L2 teachers can apply nine micro-functions of L1: to give commands, help individual weak students, give instruction for a task, gain students' attention, warn/scold/give advice, monitor students' progress, discuss/compare students' task, manage discipline, and ask/give administrative information.

Finally, there are four micro-functions of L1 in the Social and Interpersonal domain: encouraging/motivating the students, establishing rapport, talking about learning, and drawing upon shared expression.

Application of the Guideline of L1

This study has made a noteworthy

contribution to promoting the systematic use of L1 among L2 teachers in a classroom through the L1 guideline. One can follow the

steps outlined in the flowchart displayed in Figure 4 to use the guideline.

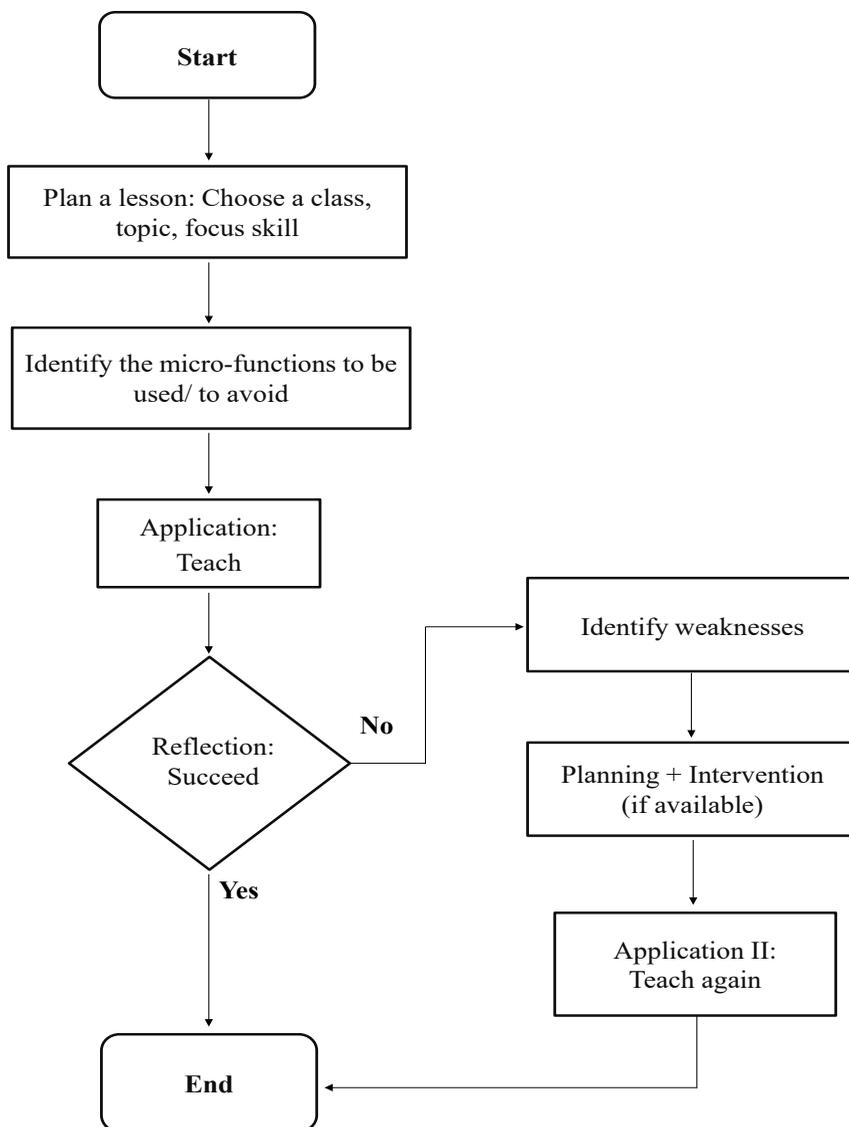


Figure 4. Process of applying the guideline in the classroom
 Source: Romli (2022, p. 348)

Before teaching a class, L2 teachers must plan their lessons by considering the students' proficiency levels, the lesson topic, the focus skills, and the specific micro-

functions of L1 for the lesson. Teachers can select certain micro-functions of L1 while refraining from using the language for other purposes. The second step is to carry out the

lesson plan and monitor their language use. Teachers are advised to record their lessons and listen to the recording to determine the micro-functions that occurred to identify the lapses in L1. If teachers successfully implement their lesson plan and control the utilisation of certain micro-functions of L1, they do not have to repeat the steps to address the issue again. If a teacher's attempt to limit L1 usage is unsuccessful, it is important to identify teaching execution weaknesses. One way to do this is by listing the unintentional L1 functions and considering alternative strategies. For example, if teachers want to avoid using L1 to give instructions, they can request other students to explain the meaning to those who do not understand.

DISCUSSION

The data analysis revealed that eight English teachers utilised 27 micro-functions of L1 in their classrooms. Most teachers frequently employed the micro-functions from the Content Transmission domain than those in other categories. Specifically, they utilised 13 functions from Content Transmission, nine in Classroom Management, and five from the Social and Interpersonal domain. L1 was used less frequently in the Classroom Management domain than in the Content Transmission domain. Instead, the teachers only used BM to manage their classrooms by giving commands and warnings, gaining students' attention, providing instructions for tasks, and giving them individual help. Besides, most English teachers did not use a significant number

of the micro-functions of BM in the Social and Interpersonal domains. The recorded L1 functions were building rapport, using common expressions, offering support, and engaging in informal interactions.

Regarding the interview sessions, it was discovered that they all agreed on the effectiveness of the micro-functions of BM. The teachers highlighted that they primarily used BM because many students in their classes had intermediate or low proficiency levels in English. As de la Fuente and Goldenberg (2020) noted, L2 teachers may face challenges in managing the use of the first language (L1) in the classroom. This is especially true for L1 learners, particularly beginners, who may still rely on their L1. As a result, L2 teachers may need to find ways to strike a balance between encouraging L2 use and allowing L1 when necessary to facilitate comprehension and communication. It requires careful planning and consideration of the students' proficiency levels and language needs.

In addition, English teachers did not realise that they actually used L1 since it occurred spontaneously during the teaching process. They admitted that their main reason for using BM was to ensure the students comprehended the subject matter and were willing to participate in the learning activities. It is possible to restrict L1 use if teachers develop informed awareness about judicious ways to incorporate it into their lessons (de la Fuente & Goldenberg, 2020). Finally, English teachers believe it is essential to maximise the use of the TL and minimise the use of L1 during the teaching process.

The most significant finding of this study is the discovery of 26 useful micro-functions for L1 that are further incorporated in the guideline. L2 teachers can monitor their L1 use based on the micro-functions in the three domains: Content Transmission, Classroom Management, and Social and Interpersonal.

CONCLUSION

This study discovered that English teachers in Pahang employed BM for certain micro-functions to assist them in teaching the L2, especially to the low proficiency students. The results revealed significant findings regarding teachers' utilisation of the micro-functions of L1 and the usefulness of these functions in teaching L2. The study underscores the significance of having a well-defined guideline for systematically incorporating L1 in the L2 classroom that can lead to more effective language learning outcomes. Awareness of this issue could only be established by providing adequate exposure to the guidelines during teacher training programmes or courses for in-service teachers. It is important to note that this study unequivocally asserts that BM is not the only viable option for teachers to support low-proficiency students in learning English effectively. Instead, it is crucial to establish a language classroom that provides enough exposure to the TL, as it serves as the primary learning environment for most L2 learners (Tong et al., 2022). In cases where language teachers need to use the students' L1, it should only be done sparingly and with the students' best interests in mind.

Implications of Study

There are some implications for L2 teachers regarding the use of L1 in the teaching process. L2 teachers are advised to use L1 only with beginners or low-proficiency students by adhering to the proposed guidelines. The guideline can increase teachers' awareness of the judicious use of L1 and assist them in making informed choices about when, how, and by whom it should be utilised to improve L2 learning (Turnbull, 2018). The guideline is not aimed at encouraging English teachers to use more L1, but it could raise their awareness on this issue and be more conscious when they want to utilise the language. Apart from that, this guideline could be the solution to reducing the occurrences of L1 in the L2 classroom because teachers can plan which aspects of L1 to use in lessons and avoid those that can be explained in TL.

Based on the findings, utilising the micro-functions of L1 can scaffold the teaching and learning process, particularly for beginner or low proficiency students, as it helps them to retrieve knowledge from their schemata and understand the TL. They are subconsciously or consciously applying their knowledge of L1 to make sense of the teachers' TL. It is believed that systematic use of L1 would not stop the process of learning. Rather, it could enhance and provide a nurturing element for the students. Besides, using L1 can reduce anxiety and increase motivation, ultimately leading to independent learning. Although this study produced the guidelines to use L1, L2 teachers should try other strategies

such as using simple sentences, displaying pictures, asking peers to translate or carrying out interesting activities in the classroom. In essence, although incorporating L1 is essential to facilitate the L2 teaching process, language teachers are advised to be cautious about its usage (Olmez & Kirkgoz, 2021).

Limitations of Study

One of the research limitations is that the researchers examined the teachers' verbal communication in the classroom without taking nonverbal cues into account due to the data being collected through a voice recorder to analyse the micro-functions of L1 in teachers' speech. Additional research can be carried out to investigate the nonverbal communication techniques utilised by L2 teachers to convey intended meanings without resorting to L1. These strategies may include using gestures, facial expressions, visual aids, props, and real-life objects, as well as visual cues or pauses and waiting times, such as nodding to indicate agreement.

It should be noted that this study did not take into account other factors that could have influenced the results regarding the use of micro-functions of the BM by English teachers. Factors such as the teachers' teaching background, language proficiency, or the topics of the lessons were not taken into account. However, there were valid reasons why these aspects were not used to generalise the findings. The study was conducted to identify specific ways teachers used L1 based on the framework

of the micro-functions of L1 in teaching the L2. Therefore, it was unnecessary to check whether these factors had influenced their use of L1. Despite the limitations faced during the study, the researcher was able to gather sufficient data to answer all research questions. These limitations could guide future researchers conducting similar studies on L1 utilisation by L2 teachers.

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APPENDIX A

Teachers' responses to interview question 1: Based on the lessons' transcriptions, do you think the micro-functions of BM (that you have used in the lessons) are useful? How about the other functions in the framework?

Teacher	Responses	Summary
Teacher 1	<p>I think looking at how I used BM, during these lessons, I would consider all of them to be useful. Because when I use English, their jaw drop. [laugh]. This class mostly contains of weak students. And I think BM is effective for my weak students. Maybe unofficial interaction is not useful. Only that. Because I can easily use English but maybe it happened naturally.</p> <p>I think useful as long as you do it when the students don't understand. But for students who are good in English, I feel no need to use BM. But for weak students I think can because if they don't understand what the teacher is saying also useless right? Because if I explain many times and they still don't understand so, can use BM. But still, we cannot use full BM, because that make students too dependent on BM, later they might 'saya – tak paham tak paham', right?</p>	All except unofficial interaction
Teacher 2	<p>As for me, useful yes because of some reasons and situations. I'm teaching lower form students, they still do not have much of English vocabulary, majority of them are do not use English in daily conversations and are come in 3 levels of proficiency: most of them intermediate and weak. I use BM when my students seem not to understand by looking at their facial expressions, asking friends a lot and body language. Sometimes, my L1 tongue comes in unplanned, but the students pay more attention to me. I think these two sections are important. Content and classroom management.</p> <p>I cannot rule them out since I might need BM for that. Could be useful in my other lessons.</p>	Content and classroom management
Teacher 3	<p>I think all are useful. Okay. Eliciting yes, translating words and sentences, explanation or reinforcement by exemplification, relate aspects/ideas to be culturally relevant, explanation or reinforcement by clarification, review content, checking comprehension of listening or reading text, explanation or reinforcement by repetition, teacher commands, to gain students' attention and focus, unofficial interactions.</p> <p>Then also, giving instructions for a task to be carried out, I think yes since sometimes i need to explain in detail for activities. Giving individual help to a weaker student. Oh, especially like the ones with CT like translate, elicit, yes. I think all are actually help me. But again, it depends on which level of my students. If they are good students, I think content transmission is more important, if they are weak then you have to build rapport.</p>	All domains

Teacher	Responses	Summary
Teacher 3	<p>Based on my experience, social and interpersonal domain is very good for the weaker students. If they are good, you don't have to go for this domain, because they know that they have to learn, they want to learn, so you go straight to the content transmission. Once you have set up the parameter in your teaching, then slowly you can go to the social and to the management and what not.</p> <p>Oh, very useful. You have to have this. You have to have this too. Very, very useful. In fact, many of the teachers, they don't give attention to all of this. Sometimes, teachers only focusing on content transmission. What is the most important for them, what is the grade I want them to achieve. Final results are more important. I don't care if you like me or not. No. I don't care. But to me, personally, I would go to social and interpersonal first, then I go for classroom management then I can only translate my content.</p>	All domains
Teacher 4	<p>I think certainly. For example, translate words, eliciting, giving instructions and these are useful. Yes, yes. Of course. I had to use BM and translate especially for this class.</p> <p>Yes. Could be. They can be useful, but it depends on the situation. In terms of the class, who are the students, we need to adapt our teaching on the students' proficiency level. Some weak students might feel intimidated to participate in class when the teacher is using English all the time because some students do have certain perception towards this foreign language. Thus, to help the students feel less intimidated with the class, teachers might use Bahasa as well in class.</p>	All domains
Teacher 5	<p>Okay. For teaching content lesson, certainly I agreed. Translating words and sentences, explanation or reinforcement by clarification, explanation or reinforcement by exemplification, eliciting. Also, useful. I'm not aware I used BM for these categories, I guess it was necessary for that moment to explain in BM.</p> <p>I might not use all of them, but they can be useful for certain topics. But I don't really know how to use BM. But I use to explain if the students don't get it.</p>	All domains
Teacher 6	<p>Yes. I believe so. I realise a lot but I think they are useful for this class. I think during the lessons, I need to use BM for these reasons. Sometimes, you have to teach new stuff and or reinforce certain words, information to the students.</p> <p>For me, it depends to who your students are. Yes, the level of the students. Students who are not good in English I think they need BM.</p>	All domains
Teacher 7	<p>Okay, okay. I think all here that I used are helpful because it adds students' comprehension especially in this lesson. Poem. When you teach poem, the students have to really understand it. Yes, like that.</p> <p>Maybe not so much for testing, and this part of the social and interpersonal. All of these still depend on the purposes and students.</p>	All except testing

Teacher	Responses	Summary
Teacher 8	<p>Okay back to my previous lesson, I still remember that I taught these lessons and when I looked back the transcriptions that you gave me, the BM words that I used are easy words. Like 'betul tak, yeke, saya rasa'. So those words even if I don't translate to BM my students still can understand those words and phrases. It means, it doesn't necessarily for me to use the words but the tendency of you being a Malay teacher with all the Malay students with you, so the tendency of you to use the mother tongue is high. That's what I think. I think they would understand even if I don't use BM. But you know what? I don't even realise that I use Bahasa Melayu in my lessons. Like I felt comfortable for me to use the word...it's just to emphasis to what I already said.</p> <p>It thinks they could be useful if the students are weak students. I think that lesson was in my third class, if I'm not mistaken, so not all the students are competent. So, some of them, they are weak, okay some of them are good, so I think it might work with the weak students.</p> <p>I think these two sections are important. But social maybe not really. Yes. Could be as long they serve the purpose. To make weak students understand.</p>	Content and classroom management

APPENDIX B

Teachers' responses to interview question 2: Based on the lessons and your experience, how useful is it to use the micro-functions of BM to teach English? Are there any other strategies to overcome the problem?

Teacher	Responses	Summary
Teacher 1	<p>In general, it's useful but I don't think it's the best solution. Because you know, at the end of the lessons, I just want them to learn something. So, you have to sacrifice something to make them understand. Not like that, I mean, I agree that it is beneficial, but somehow not too much so they can also use English, understand and respond.</p> <p>That's why BM is useful but actually, there are other ways than using BM. For English we can use games or songs. But this one is not in the syllabus, right? So, we can just do it as an additional activity. For example, we can take one sentence from a song, and they sing the song before, so we can ask them to translate. Okay one more is games and students really like games. They become interested to learn because the activities are fun. Based on my experience, the main problem in learning English is they must have interest to learn. If no interest, they cannot learn. So, it is important to attract their attention. Then another one, teacher can try quiz. For example, missing word in a sentence. So, ask them to guess the word. At least they get one word for that time.</p>	Useful but not the best solution

Teacher	Responses	Summary
Teacher 2	<p>BM is always helpful because students know it. Using BM for the functions are also good if they don't understand. It is also useful to help a class that majority or all of them are low-proficiency students. My school has 3-4 classes like this in every form. Good students they get more understanding, intermediate students I'm sure they understand. Weak students will get some understanding from the lesson if I use BM. They tend to respond to me when I occasionally use BM rather than use full English throughout the lesson. I prefer using BM to intermediate and weak students. But? But how long you going to use BM? Like a love hate relationship. Because you don't like to use it, but you need it. For some students who couldn't understand English. Because when we use BM it can improve their understanding on the topic or whatever I teach. But the side effect is that they couldn't express back in English. They understand but have difficulty to express when we use BM.</p> <p>Based on my lessons in the recording I think I could have used teaching AID like pictures, used LCD Projector. I also can simplify my English by using short sentences and ask students to repeat them. Or also make them use dictionary if for certain terms. Lastly, may be ask good students to explain to the class because sometimes they prefer their friends' answers.</p> <p>I think other than that, generally speaking, it's difficult to find other strategies but maybe if we drill them using English, for specific words for example, then that's what we only focusing on. We cannot do other things but just drilling. Teachers have to cover many themes and topics for each class.</p>	Useful but has its own weaknesses
Teacher 3	<p>It's useful but also has its own weaknesses. It's good to help me to teach, to make students understand. But to use it too much is not good. That is when it has weakness. Yes, yes. Too much then it is not useful anymore. Students are not going to learn English. It also depends on who are the students. If they are the A1 or A2 students, sometimes, you need to use their L1 or their mother tongue to understand the language. Not useful for good students but for weak students yes.</p> <p>For this question, other than BM? Since I am kinaesthetic person I can inject the drama, I can inject my body language, I inject facial expressions, I do act out, something like that. As long as they know what I'm trying to say, yeah. I'll do that. These are the strategies but BM is the fastest way.</p>	Useful but has its own weaknesses

Teacher	Responses	Summary
Teacher 4	<p>It is useful for my students to understand English. When they don't understand I translate they will know. But how useful is I cannot say exactly. One of the benefits using BM is that it solves students' problem when they don't understand words, tasks. However, to a certain extent, you just cannot rely on BM anymore. You also want them to speak in English, so maybe it is useful only for certain reasons. These students, they only spend limited time at school, then they go back, they will speak their mother tongue. They only speak English with the English teachers, not with their friends also. There are other solutions, but it is not easy and might not be effective. So, BM comes in handy. Yes, to make them understand quickly. But other than BM, other than using Bahasa in class, for some classes, I usually try to use simpler words or terms to make it easier for the students to understand my lesson and instructions. At the same time, I always encourage my students to speak English with me and their classmates.</p>	Useful-to make students understand
Teacher 5	<p>It is not the greatest solution to me, but it's easy. How far it is useful? Hmm.. you can just translate, and problems solved. But it creates more problems after that. Because you cannot see clearly how BM can help them to speak English more, to be more proficient. But it really helps teachers to tackle their learning problem. Maybe you just have to use it but also try to use more English. To compensate the fact that you use BM.</p> <p>I wish we have. But for the time being except from repeating simple sentences while also try to keep the class in control, I think it's tough. So that's why I use BM. They understand, but that's it. Teachers have just one hour of lesson, so, we cannot spend a long time to explain one word, in English. And then another word, another word. The easiest and quickest is BM. So we need to finish the lesson, we need them to understand.</p>	Useful but not the best solution
Teacher 6	<p>It's helpful to me you know when I need to translate words and sentences. Other than using BM, it will be difficult.</p> <p>Hmm I give you another example, some of my other students, they don't understand one or two words, but that one or two words that really sometimes block them, from understand, 'tak faham terus' they say. But when we explain that particular word, they will be like 'oh'. Then they know. So that's why I think it's helpful to use BM. Ha, sometimes when I use simple English, they don't understand also. They couldn't connect the meanings. It is useful as I could not think of the fastest way to help my weak students. But anyhow, regardless of the students ask us to use BM, we still have to try use English. To explain yes, teachers can use BM, but maybe make them use to hear you speak English too. Maybe can use simple English, I think the use of simple English can. But maybe not all words we can explain using English. So I end up using BM also.</p>	Useful-to make students understand

Teacher	Responses	Summary
Teacher 7	<p>Actually, we teachers can't use BM all the time. But looking at the analysis, yes. I think I've been using a lot of BM. But it works to make them understand. I can't go on teaching if they don't understand at all. BM is definitely helpful to me. To help me teach and the students to understand. But don't use BM too much. That's a limit to use it. At least in my opinion. Say for example, today you teach them the word 'teenager'. Okay tomorrow when you recall the lesson, don't keep on repeating 'remaja' 'remaja'. Can just translate once or twice. After that, tell the students to memorise.</p> <p>I think can try to simplify the language, like you try not to use advance words. But use words that they use to hear. However, it is not possible to do this for every word. Some word can, and others cannot. In a way, teachers still have to use BM. Yes. But mostly I translate to BM after a few attempts in English have failed. That's the only handy strategy for now. But for some easy topics I can use pictures but it's difficult to get pictures all the time. Then for example in the lesson, I had to explain the same instruction so many times. And lastly, I have to use BM. Means for this class, my students are weak. So that what happened. If the good class, I don't think I need to repeat many times. For this kind of class, by crook or by hook, I have to use BM.</p>	Helpful. Utilise after attempts in TL
Teacher 8	<p>It is useful but nonetheless, we still have to use English, because it's an English lesson, and they have to be exposed to English. But if I have to instil the English environment, from the beginning, then it will easier. Maybe we can do more fun activities, then not so fun activities, more difficult we can use BM to facilitate them to do the task. If students already understand the English words, you don't need to use BM. Then at least they can remember both English and BM words. Maybe just have to explain many times, although it can be tedious to repeat so many times.</p>	Useful but teachers have to use other strategies

APPENDIX C

Teachers' responses to interview question 3: Were you exposed to any forms of guidelines on how to use BM (L1) to teach English (L2)? How do you feel about the guidelines to use L1 to teach L2?

Teacher	Responses	Summary
Teacher 1	<p>No. I just use it. I think it will be better if I have because now, I don't know how to use it correctly. Maybe it can help so that I know where and when to use BM. I think we can use the guideline if there is any. So, we can use the guideline if needed during pdpc. But remember limit the use, cannot the whole time for one hour teacher use BM. The most important thing is to make students interested to learn. Exactly. If they understand the language, they will be interested. Not just that, teachers' way of teaching also is important. I remember one time I heard other English teacher. She asked the students to do exercise, but they didn't do it cause they don't understand. So, she had to repeat in Bahasa Melayu. So, students understand when she used BM.</p>	No exposure. Guideline can assist teachers

Teacher	Responses	Summary
Teacher 2	<p>I think I never had anyone informed me about it before. But I only heard a senior teacher, who I was very close with, she said, we need to use BM sometimes. I don't think so. Even if you ask District Education Office, they will say use fully English.</p> <p>I think judging from my teaching experience, I think we need to have it. To avoid overuse, sometimes if 50 percent only BM. For example, like last class. But, when we use 50 percent, they will do the tasks that we give. But the problem is during exam, because sometimes they refuse to answer, and also, they don't know how to respond. I really think, speaking is really useful to help them improve but since they refuse, it is difficult. Of course, that's why the CEFR, has four papers. And speaking is one of the papers.</p>	No exposure
Teacher 3	No. I don't remember any . If I had one, maybe it should be more like compilation of best practice and students may like English better. If there's one like that, I would love to have one .	No exposure. Guideline can assist teachers
Teacher 4	No, never . Maybe we can use, as a guideline , but still cannot use it more than 50%. Then the class won't look like English class.	No exposure. Guideline can assist teachers but still not more than 50% of L1
Teacher 5	Never but during my degree, I think I was exposed to some teaching methods but that was it. I forget about it already . When you are given rules to follow, any rules, like school rules, you will be more discipline , you be more careful , so it's good to have one .	Were exposed during study. Guideline can assist teachers.
Teacher 6	Not at all . I think I need a guideline. To avoid us from using BM a lot , a lot of BM, if there's a guideline , we know okay, this part we can use BM , that part for example we must use all English. If there's guidelines, it can help . You know to reduce the use of BM for not so important reasons .	No exposure. Guideline can assist teachers
Teacher 7	I don't remember of any guidelines . I think without guidance teachers tend to use or might overuse whenever we could . Because we don't know how we use it. So when the students don't understand then we just use BM, although it might not help them. So, a guideline can help teachers to know when to use BM . Maybe all teachers do need it but then again, we know our students best , if we have the rules, the guidelines, but still, we might be using BM because we know our students. Sometimes, they need us to use it, sometimes not.	No exposure. Guideline can assist teachers but may not adhere to it
Teacher 8	Maybe not . I never heard of one. But people from PPD mentioned that we must use only English in class, they don't say we can use BM for specific reasons. We should have one, but then it has to be implemented or published so many teachers know about it. Rather than just stay in book. Then maybe should start at primary school not just at secondary schools or teachers just waste their time.	No exposure. Guideline can assist teachers but need to be made public (published)

APPENDIX D

Teachers' responses to interview question 4: Do you use BM for the micro-functions spontaneously, or do you plan beforehand?

Teacher	Responses	Summary
Teacher 1	I think I use it spontaneously .	Spontaneously
Teacher 2	Usually, spontaneous .	Spontaneously
Teacher 3	My lesson plan is not supposed to include BM but English only. Yeah, but maybe it will be good if there are some guidance to use BM correctly to help teachers to teach and students. There's this senior teacher in my school who doesn't believe in using BM, but I beg to differ. And especially if we share the same first language, so. I feel sorry for my students. But my administrators are very strict about this thing.	Spontaneously
Teacher 4	Spontaneously of course. No planning .	Spontaneously
Teacher 5	I don't plan . Because sometimes I can use a lot of English, so less BM.	Spontaneously
Teacher 6	Spontaneously . But in our minds, say in English, explain in English, but when we teach, we accidentally use BM. Or without realizing we use BM.	Spontaneously
Teacher 7	No, I never plan to use BM . But somehow, I use it.	Spontaneously
Teacher 8	Spontaneous .	Spontaneously

APPENDIX E

Teachers' responses to interview question 5: Which proficiency level of students benefits the most from the use of BM? Why?

Teacher	Responses	Summary
Teacher 1	I think for my weak classes and my weak students .	Weak students and classes
Teacher 2	For weak students . Also, there are weak students in good classes so I have to use BM. Usually weak students in good classes, they are willing to ask us, or they ask their friends. And it will benefit the friends too. But for other back classes, we can guess words that they don't understand. So, we have to ask them. We identify words that they may not be able to guess and explain to them. Because usually they don't want to ask us. Yes, because I know that they don't understand most of the words. By giving meanings of certain words, they may be able to guess the meaning of the phrases or sentences.	Weak students from good and weak classes
Teacher 3	Weak students of course. Like students who are moving towards B1 maybe or A2 in CEFR level.	Weak students
Teacher 4	Weak students will benefit from this. If we use BM with good class, we will lose the identity as an English teacher.	Weak students

Teacher	Responses	Summary
Teacher 5	Weak students from weak classes, and weak students from good classes . There are a few students who are weak in English in good class. One to many in weak class, and one to one in good class cause many weak students in weak class, so I use in front of the class. Then I go to one student to explain if they need help.	Weak students from good and weak classes
Teacher 6	The lower proficiency students , but a little but for high proficiency students. But with them not to teach maybe just for fun. For social and Interpersonal.	Lower proficiency level students
Teacher 7	I think only for weak students only . I can speak only English to good class no problem with them to understand me.	Weak students
Teacher 8	For my weak students because they don't understand many things, and some don't understand anything I say. It's difficult and I also tired of this same situation.	Weak students

Preliminary Data on the Use of Juncture as Marker for Phonetic Recall in an EFL Context

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ABSTRACT

The study of juncture in the perspective of the English as a Foreign Language (EFL) context is limited, particularly to the one associated with the recalling process. This research aims to describe a glimpse of the juncture phenomenon by indicating the phonetic recalling process. An experimental method was applied to conduct the research. An experiment involving stimuli to phonetic knowledge was given to participants in the EFL context. There were twenty students involved in this experimental study. Analysed acoustically, the result of the preliminary data shows that junctures may occur during speech production of the stimuli with the indication of the phonetic recalling process at the syllabic level. This indication might refer to the participants' attempt to re-access the phonetic knowledge stored in the brain. The pause duration might mark the occurrence of junctures, indicating phonetic recalling. It was also revealed that the participants' attitudes towards the English might influence the occurrence of junctures. The study showed that junctures happened before pronouncing the words in monosyllabic words. In contrast, juncture might occur in the first, middle, and last syllable in multisyllabic words. The locations of junctures might relate to the most unfamiliar syllable of the words from the participants' perspective. From

this perspective, juncture may also occur in other speakers, not only Sundanese but also other foreign languages, not only English. This preliminary research may serve as a foundation to conduct a relevant study on the other local or regional languages in Indonesia.

Keywords: Acoustic, EFL, juncture, phonetic, recall, Sundanese

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INTRODUCTION

Most Indonesians are multilingual (Halim, 1971). It is a fact that Indonesia consists of diverse ethnic groups, cultures, and languages. Many experts concur that multilingualism is complex (Cenoz, 2013; Halim, 1971; Zarobe & Zarobe, 2015). Briefly, multilingualism refers to one's ability to speak more than two languages (Malechová, 2016; Rasman, 2018). Stein-Smith (2021) states that at least half of Earth's population is bilingual or multilingual. Cenoz (2013), Bolton et al. (2020), Albury (2021), and Chik and Melo-Pfeifer (2023) argue about societal multilingualism concerning the ability of societies to acquire more than one language.

The notions proposed by many experts above may be reflected in Indonesia. A report on languages in Indonesia suggests that Indonesia is compromised by three major languages, namely a national/official language, regional languages, and foreign languages (Riza, 2008). The official language refers to *Bahasa Indonesia*. The regional languages consist of various local languages spoken based on ethnic groups and provincial statuses, such as Javanese in Central Java, East Java, and Yogyakarta; Sundanese in West Java and Banten; and others. Meanwhile, foreign languages may include English, Arabic, Chinese, and others. This condition of multilingualism in Indonesia may lead to a complicated situation.

Every language spoken in Indonesia may serve in its capacity. *Bahasa Indonesia* is used in formal situations such as an

office or academic environment. Regional languages serve as means of communication among members of ethnic groups where the languages are spoken.

Meanwhile, a foreign language such as English may serve a different level. It has a special place among *Bahasa Indonesia* and regional languages in Indonesia. English has certain privileges in the linguistic spectrum in Indonesia. It is implicated in the Indonesian educational system, used by many young adults and even at the level of officials. In Indonesia, English is compulsory from middle school to high school and even in the first semester in some universities (Alfarisy, 2021). Thus, English is Indonesia's most spoken foreign language (Zein, 2019).

Many experts support English's status as a foreign language in Indonesia in various research (Cohn & Ravindranath, 2014; Kaharuddin & Ahmad, 2018; Widiati & Cahyono, 2006; Zacharias, 2012). Among other foreign languages, English is considered a priority (Lauder, 2008). It is essential in many aspects, including the economy, international relations, media, education, and communication. This view, unfortunately, has resulted in a contradictory situation of multilingualism in Indonesia. A reversed situation is under consideration. Today, instead of regional languages, many Indonesian children have developed Bahasa Indonesia or English as their first language and regional languages such as Javanese as their second language (Zen, 2018). Therefore, the situation of multilingualism in Indonesia is quite complex. Zein (2019)

states that Indonesia is the second largest country in linguistic diversity, with more than 700 local or regional languages. With this condition, Indonesian people are considered trilingual, with local or regional languages as their mother tongue or first language, *Bahasa Indonesia* as a second language, and English as a foreign language (Lauder, 2008; Riza, 2008; Zein, 2019; Zen, 2018). English as a foreign language is learned, used, and spoken in a non-English speaking country (Peng, 2019).

The attitudes towards language and language usage by the speech community where language speakers belong play an important role. If the speech community considers one language less critical, the rest of its members may have the exact expectations.

The ability to speak more than two languages in a multilingual individual correlates closely with the ability of the brain to store and recall language information. This cognitive ability may relate to executive functions. Executive functions include cognitive processes consisting of three functions: (1) switching, (2) updating, and (3) inhibition (Boumeester et al., 2019). According to them, switching refers to switching more than two tasks (might refer to languages), updating relates to selecting newer and most relevant information, and inhibition concerns the ability to process dominant or automatic responses. These abilities fall within the context of multilingualism.

Bilingual or multilingual individuals have become an exciting subject to explore.

Their cognitive ability in language has intrigued many linguistic experts. Baker (2005) believes that two different language systems exist in a bilingual individual. This finding implies that a multisystem of language may also exist in a multilingual individual. In Indonesia, this multisystem of language refers to the trilingual condition of its people, which revolves around the mother tongue or first language, which is local or regional languages, *Bahasa Indonesia* as the second language, and English as the foreign language. Furthermore, in a multilingual community, its members experience cross-linguistic exposure that may influence speech production (Hamid et al., 2022). Using these three languages has intrigued the present writers to conduct a study.

The study that may relate to the existence of a multisystem of language in multilingual individuals is the switch between these different language systems. How a multilingual individual switches from one language to another in a daily context does make it interesting. Priya and Singh (2017) state that the switch between the different language systems may relate to the hierarchy values of the languages. This hierarchy means that the attitude of a language speaker is involved. The switch between different language systems occurs in the brain, where all information on languages is stored. This switch may be reflected on juncture.

Juncture is a phonetic feature during speech production (Crystal, 2008; Trask, 1996). Juncture or pause can be observed in duration. Experts such as Friederici and

Wartenburger (2010) say that this duration type may be reflected in milliseconds. Concerning the switch between different language systems, juncture may be used as a marker of phonetic recall. Phonetic recall may indicate a successful switch between the different systems of language.

Studies focusing on juncture in multilingual individuals in Indonesia seem to be limited, mainly to involving regional languages native speakers in the context of English as a foreign language. Studies conducted by Perwitasari et al. (2016), Risdianto (2017), and Soni (2018) are the closest. They study the Sundanese native speakers in producing English as a foreign language. However, the notion of a juncture in the recalling process has yet to be considered. This condition has led the present writers to study further the use of juncture as a marker for phonetic recall in an EFL context. This study aims to describe the junctures that indicate the phonetic recalling process.

LITERATURE REVIEW

Phonetic Recalling

The concept of multilingualism cannot be separated from the brain's function of storing information regarding cognitive ability. The brain can learn, experience, store, and recall various knowledge and information (Amin & Malik, 2014; Arifuddin, 2013; Friederici & Wartenburger, 2010). One of this diverse knowledge and information is language. Friederici (2011) suggests that different brain regions may be responsible for particular language functions. A relevant

notion is considered that even though it refers to different brain regions, the brain's memory is the most crucial subject when talking about language processing in the brain. Pajak et al. (2016) argue that working memory is related to the development of the language learning process. Lin et al. (2015) relate working memory to phonological representations in the brain. Ari et al. (2019) also support it, stating that working memory influences phonetic performance.

Erickson et al. (1977) may relate working memory to short-term memory. In their research, phonetic confusion in short-term storage affects unsuccessful recall. Successful learning, storing, and recalling processes are associated with long-term memory (Amin et al., 2014). Zhang (2019) states that long-term memory intends to store information for a long period. This notion is associated with the importance of the information. Therefore, should knowledge and information on the language be considered significant, they are stored in long-term memory. Arifuddin (2013) and Zhang (2019) specify language storage in long-term memory. This specification refers to the ability to speak, involving pronunciation/speech articulation, which is considered the most complex skill associated with phonetic coding to identify, represent, and produce sound retrieved from memory (Hu et al., 2013). Arifuddin (2013) relates pronunciation or speech production to the experiences stored in memory. He specifies this memory as phonetic memory. Phonetic memory plays an essential role in identifying sounds. Clark and Clark (1977),

as cited in Arifuddin (2013), describe three stages of speech articulation: (1) the auditory stage, referring to speech acceptance acoustically; (2) the phonetic stage, referring to sound identification and storage in phonetic memory, and (3) phonological stage, referring to process associated with the phonological term in which speech processing must be acceptable to its phonotactic principle. These three stages of speech articulation certainly relate to memory recalling when retrieving knowledge and information during speech production.

More research on recalling related to speech production or pronunciation is needed. Pisoni (1973) studies the association between memory and phonetic capability. Markowitsch (1995), in his research, states that the information retrieved/recalled is quite specific as the memory store, while Wade and Mobius (2010) confirm that knowledge and information, when necessary, can be accessed from memory storage. Recall is one of the three fundamental memory processes, along with encoding and retention (Amin & Malik, 2014). They explain that recall is a process of re-accessing information and knowledge. Zhang (2019) proposes a more detailed explanation regarding memory processing.

Recall is a specific process in memory. It involves other processes, such as encoding, consolidation, and storing. These processes work both ways (Figure 1). If humans perceive from the encoding, they will find the storing process in the memory; otherwise, they may reveal the recalling process. All

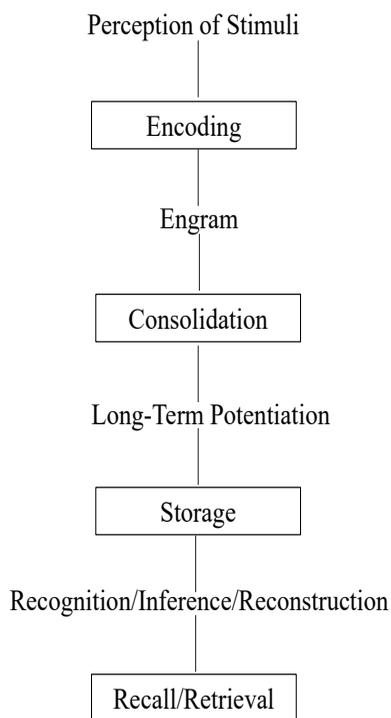


Figure 1. Human memory formation process
Source: Zhang (2019, p. 23)

begins with the perception of stimuli. If it is new, it will be stored. Should it not, the stimuli will trigger the memory to re-access the information relevant to the stimuli. This re-accessing is the recall process itself. The relevant information is the one that has been encoded and stored previously (Zhang, 2019). Thus, certain stimuli trigger certain information and knowledge relevant to them. If the stimuli relate to phonetic and phonological matters, the information and knowledge recalled must also be relevant to phonetic and phonological information and knowledge. This research focuses on phonetic knowledge since it is associated with producing and perceiving speech

sounds (Matthews, 1997). Furthermore, phonetic knowledge contributes more, particularly prosodic information relating to an acoustic signal of speech production and perception (Hawkins, 2003). An exciting notion indicating phonetic knowledge during recalling is a pause or juncture in this research.

Many experts call juncture pausing (Boomer, 1965; Clay & Imlach, 1971; Shimizu & Dantsuji, 1980). Trask (1996) specifies juncture as a boundary signal part of a phonetic feature. In line with Trask (1996), Crystal (2008) also explains that juncture is a phonetic boundary with features, including pitch, duration, and pause. Ibrahim (2008) suggests that juncture may refer to the relationship among sounds in speech production. Meanwhile, Sedeng (2016) specifies this relationship on a grammatical level. However, a specific and more detailed definition is given by Demirezen (2013, 2019). He explains that juncture is borderline, indicating border, transition intra- and inter-words marked by pauses. Its features include prosodic ones such as stress, pitch, and duration.

A juncture marked by pause duration has existed since many years ago. Studies conducted by Hoard (1966), Heselwood et al. (1995), Greenberg et al. (2002), Redford and Randall (2005), and Setter et al. (2014) reveal that pauses indicated by various time durations may signal juncture. Friederici and Wartenburger (2010) suggest that this duration may indicate brain signals within milliseconds (ms). The indication of varied pause duration in juncture may

relate to an individual's bilingualism and multilingualism. A study by Baker (2005) finds two phonetic/phonological systems in a bilingual individual, indicating that these two systems interact and may influence language processing in the brain. Priya and Singh (2017) discuss phonological systems in a multilingual society. They are concerned about the hierarchy values underlying the increase and loss of the phonological systems in a multilingual society. The pause duration may indicate a switch between the two systems. Such a notion that juncture is signalled by pause duration in multilingual individuals has intrigued the present writers to conduct further research. Moreover, this juncture may indicate a recalling process in the brain while re-accessing different phonetic systems.

METHOD

This research used an experimental method with qualitative description analysis. It was a method conducted on a group or more involving a specific treatment that might affect the result of the study (Creswell, 2014). The research involved twenty students with specific backgrounds regarding English as a foreign language.

Participants

At the beginning of the study, the present writers asked thirty students to participate in this experiment. However, there were only twenty students who were willing to participate. This group of twenty students with specified backgrounds was selected.

They were Sundanese native speakers, born and raised in the Sundanese-speaking region of West Java. When the experiment was conducted, the participants studied the Sundanese language at the Sundanese Department of the Faculty of Cultural Studies, P University. The participants were selected and classified through an in-person interview, considering their attitude towards English as a foreign language. The purpose of this attitude, considering English as a foreign language, was the variable that might reveal the different phonetic systems when re-accessing during speech production. The twenty participants were 18 to 20 years old during the experiment.

Stimuli

Twenty English words were provided and given to the participants. For the research, these words were selected by their unfamiliarity, the number of syllables of the words, and phonotactic combinations. The unfamiliarity of words is the less frequent use of the words in English as EFL. This unfamiliarity acted as a stimulus for the recalling process from the phonetic knowledge of the participants. Meanwhile, the number of syllables was considered the experimental variable for indicating the juncture between and among syllables. Monosyllabic and multisyllabic words were selected as the stimuli. The phonotactic combination was also considered an experimental variable acting as a stimulus. The Sundanese phonotactic was mainly composed of three combinations: (i) consonant-vocal (CV), (ii) vocal-consonant

(VC), and (iii) double consonants (CCVC) (Syahrin, 2014). Therefore, the English words acting as stimuli were considered to have a more complex combination than the Sundanese. Thus, the twenty stimuli words were *myrrh*, *phlegm*, *phloem*, *phlox*, *phwoah*, *phylum*, *tuft*, *thyme*, *tyre*, *zephyr*, *daguerreotype*, *diaphanous*, *euphony*, *flibbertigibbet*, *frowsty*, *kerfuffle*, *lackadaisical*, *scrumptious*, *surreptitious*, and *unperturbed*.

Myrrh was selected because it was composed of consonants only visually, and such a composition existed neither in Sundanese nor *Bahasa Indonesia*. This composition acted as a stimulus for visual perception before pronouncing the word. The words such as *phlegm*, *phloem*, *phlox*, *phwoah*, *phylum*, *tuft*, *zephyr*, *diaphanous*, *euphony*, *flibbertigibbet*, *frowsty*, and *kerfuffle* were selected due to the sound [f] contained in each word. Regarding phonetic and phonological stereotypes, Sundanese native speakers are known to be unable to produce the sound or consonant [f]. Meanwhile, the words *thyme*, *tyre*, *daguerreotype*, *lackadaisical*, *scrumptious*, *surreptitious*, and *unperturbed* were selected because of their unfamiliarity and less frequent use in the EFL context.

Procedure

The research is a phonetic acoustics study. It focuses on the acoustic signal of speech production. The experiment took two weeks of duration. The first week was the data collection process and validation, and the second was the acoustic analysis of the data,

including follow-up in-person interviews for selected participants who showed significant results. First, the participants were brought into a particular chamber. This particular chamber is called a telephone-booth-size chamber in a language lab. The chamber was generally used for pronunciation research as it cancelled noise. They were briefed on the instructions for the research. The data collecting process was conducted one by one participant.

One computer and one Digital Voice Recorder (DVR) were in the chamber. Each participant was instructed to sit before the computer and put the DVR close to their mouth. One by one, the twenty English words were displayed on the computer screen, and the participants were asked to pronounce the words. After the pronunciation data were collected, they were validated. The present writers asked Dr. M to validate the data collected from the participants. Dr. M is an English phonetics and phonology lecturer at the same university where the present writers experimented. After validation, the data was uploaded into PRAAT software to be analysed acoustically. The acoustic analysis focused on the spectrogram of fundamental frequency (F0) and duration of the data. Each data of the English word pronunciation was analysed thoroughly at the syllabic level. Each syllabic of every word was checked and analysed in its spectrogram of the fundamental frequency (F0) and duration. The PRAAT software would automatically show the spectrogram of the frequency fundamental (F0) and total duration on the selected syllables. After the

data analysis, a follow-up interview was conducted with several participants who showed promising data regarding their attitudes towards the English language.

RESULTS AND DISCUSSION

The Presence and Duration of Junctures

Tables 1 and 2 are the results of the phonetic analysis on PRAAT regarding the pronunciation of the stimuli by the participants. The acoustic analysis emphasises the pause duration at the syllabic level of the words. Table 1 shows twenty English words as the stimuli of the experimental study, along with the number of participants involved. These participants are referred to numerically (e.g., P1 as Participant 1, P2 as Participant 2).

Table 1 contains the analysis result of junctures during the experiment of participants producing English words. Twenty participants were asked to pronounce twenty English words selected through their unfamiliarity, the number of syllables, and phonotactic constraints. The result showed that out of 400 attempts to pronounce the stimuli words, there were at least 108 successful speech productions. The sums of junctures by both stimulus and participant are also shown in the table. Please note that these successful productions were at the syllabic level because the research focused on junctures at the syllabic level. Thus, the presences shown in Table 1 are the successful junctures at the syllabic level marked by successful speech or sound production of the following syllables.

Table 1
Analysis of junctures' presence during pronouncing English words

Words	Junctures presence by participants (P)																				Sum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Myrrh	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	√	-	2
Phlegm	-	-	-	-	√	-	-	-	√	√	√	-	√	√	√	-	-	-	√	-	8
Phloem	-	√	-	-	√	-	-	-	√	√	√	√	√	√	√	√	-	-	-	-	10
Phlox	-	√	-	-	√	-	√	-	√	√	√	√	√	√	√	√	-	-	√	-	12
Phwoah	-	-	-	-	-	-	-	-	√	√	√	√	-	√	√	-	-	-	√	-	7
Phylum	√	-	-	-	-	-	-	-	√	√	√	√	-	√	√	-	-	-	-	-	7
Tuft	√	-	-	-	-	-	-	-	√	-	-	-	√	-	-	-	-	-	-	-	3
Thyme	√	√	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Tyre	√	√	-	-	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-	3
Zephyr	√	√	-	-	√	-	-	-	√	-	-	-	-	-	-	√	-	-	-	-	5
Daguerreotype	-	-	-	√	-	-	√	-	√	√	-	√	√	-	-	-	√	-	-	√	8
Diaphanous	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Euphony	-	-	-	-	-	-	√	-	-	-	√	√	√	-	-	-	-	-	-	-	4
Flibbertigibbet	-	√	-	-	√	-	-	√	√	-	√	√	√	√	√	-	-	-	-	-	9
Frowsty	√	√	-	√	√	√	-	√	√	√	-	√	√	-	-	√	-	-	-	-	11
Kerfuffle	√	√	-	√	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	4
Lackadaisical	√	-	-	-	-	-	-	-	-	-	√	√	√	-	-	-	-	-	-	-	3
Scrumptious	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-	1
Surreptitious	√	-	-	√	-	-	-	-	-	-	-	√	-	√	-	-	-	-	-	-	4
unperturbed	-	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Sum	10	8	0	5	8	1	3	2	10	8	7	11	9	7	7	4	1	0	4	1	

Meanwhile, the ones that do not show the presence of junctures mostly fail to produce the correct sounds. The duration of the successful junctures in Table 1 is described in Table 2.

Table 2 shows the duration of successful junctures in milliseconds (ms). The data shown are at the syllabic level. The successful junctures in the middle or end of the words or the last syllable are marked by the successful sounds produced. For example, in the word ‘Daguerreotype,’ most of the successful junctures occurred in the last syllable of the word, that was (-type);

thus, in Table 2, it was marked by [-taɪp] followed by the duration of the juncture. The unmarked ones were the successful junctures that occurred at the beginning of the words or in the first syllable. Table 2 shows that the duration of successful junctures varies from the shortest (17.2 ms) to the longest (1314.2 ms). These durations differ due to various stimuli and the participant’s ability to recall and produce sounds. Perhaps several examples of the stimuli analysis may better explain what happened during the speech or sound productions.

Table 2
The duration of junctures in milliseconds (ms)

Words	Details of junctures in duration (millisecond/ms)
Myrrh	P5: 324.5; P19: 114.8;
Phlegm	P5: 78.2; P9: 68; P10: 80.8; P11: 122.7; P13: 73.5; P14: 155; P15: 78.5; P19: 83.2;
Phloem	P2: 81.9; P5: 89.5; P9: 110; P10: 105.6; P11: 100.6; P12: 151.2; P13: 132; P14:131.1; P14: 159.4; P16: 55.1;
Phlox	P2: 51.3; P5: 81.2; P7: 44.9; P9: 115.2; P10: 76.3; P11: 150.3; P12: 299.6; P13: 65.5; P14: 117.1; P15: 188.2; P16: 72; P19: 129.3;
Phwoah	P9: 113.6; P10: 83.7; P11: 160.7; P12: 183.7; P14: 158.9; P15: 108.9; P19: 65;
Phylum	P1: 47.7; P9: 81.1; P10: 79.6; P11: 118.5; P12: 113.6; P14: 105.7; P15: 80.7;
Tuft	P1: 26.5; P9: 17.2; P13: 63.4;
Thyme	P1: 143.8; P2: 93; P5: 165.4;
Tyre	P1: 79.6; P2: 60.5; P15: 171.6;
Zephyr	P1: f 136.5; P9: f 110.3; P16: f 56.9;
Daguerreotype	P4: taɪp 543.2; P7 taɪp 231; P9: taɪp 110.8; P10: 71.9; P12: taɪp 124.8; P13: taɪp 164.1; P17: taɪp 288.8; P20: taɪp 1314.2;
Diaphanous	P1: f 206.8;
Euphony	P7: f 175; P11: f 176.8; P12: f 142.4; P13: f 135.9;
Flibbertigibbet	P2: 143.8; P5: 170.2; P8: 192.4; P9: 113,6; P11: 161.3; P12: 242.3; P13: 165.8; P14: 211; P15: 101.2;

Table 2 (Continue)

Words	Details of junctures in duration (millisecond/ms)
Frowsty	P1: 97.4; P2:56.4; P4: 103.3; P5: 114; P6: ti 718.6; P8: 130.8; P9: 105.2; P10: 76.8; P12: 274.2; P13: 100.1; P16: 84.8;
Kerfuffle	P1: f ¹ 48.2; f ² 44.6; P2: f ¹ 75.3; f ² 25.9; P4: f ¹ 109; f ² 61.7; P12 f ¹ 118.3; f ² 214.3;
Lackadaisical	P1: zɪ 105.5; kl 64.5; P12 dei 85.2; kl 146; P13: 1178.4;
Scrumptious	P10: 348.4;
Surreptitious	P1: tɪfəs 267.2; P4: tɪfəs 465.8; P12: tɪfəs 421.1; P14: tɪfəs 376.1;
unperturbed	P4: tɜ:rbd 218.1

Analysis of the Spectrograms

The following spectrograms are the results of several examples of what happened during the experiment on pronouncing the stimuli words. Four examples are representative

of the results of the experiment. The words are ‘myrrh’, ‘phloem’, ‘surreptitious’, and ‘daguerreotype’. The first example is the word ‘myrrh.’

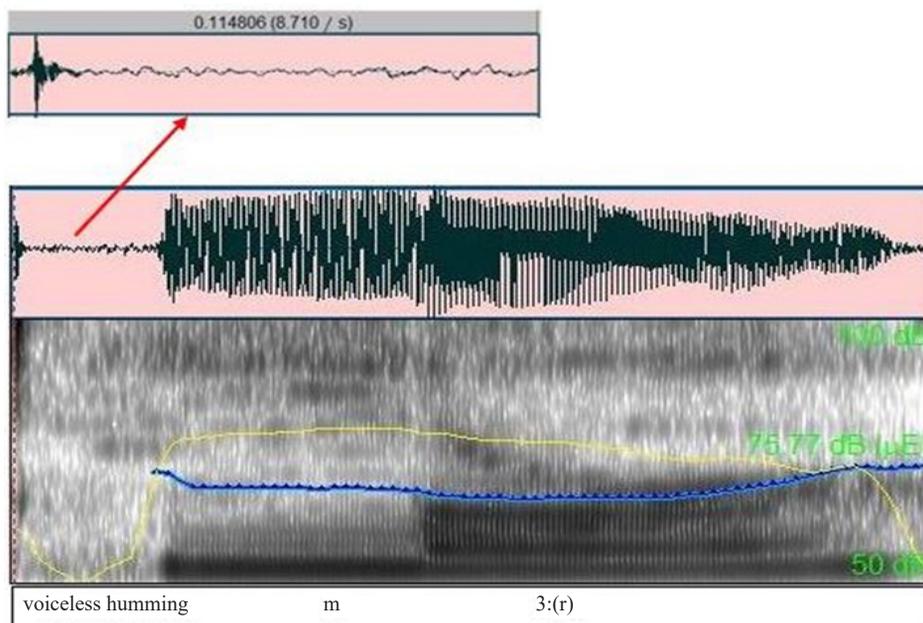


Figure 2. Spectrogram of ‘Myrrh’ by P19

Figure 2 shows the spectrogram of ‘myrrh’ produced by Participant 19 (P19). As seen in the spectrogram, a voiceless humming was detected preceding the production of the word. This voiceless

humming was considered when the participant re-accessed and recalled the phonetic knowledge, resulting in the correct speech or sound production of the word ‘myrrh’ [m3:(r)]. This voiceless

lasted for 324.5 ms and was considered a successful juncture. The result of the acoustical analysis shown in the spectrogram (Figure 2) is similar to that of ‘myrrh’ by P5 (Figure 3), considered a successful juncture. A similar feature refers to the voiceless humming preceding the correct sound production of the word ‘myrrh.’ This feature of voiceless humming was considered a

juncture because, at this moment, it was suspected that the participant tried to re-access or recall the phonetic knowledge to produce the correct sound. As a result, it was confirmed that the participant successfully produced the correct sound of ‘myrrh’ [m3:(r)]. Thus, it is safe to say that a juncture occurred before pronouncing the word.

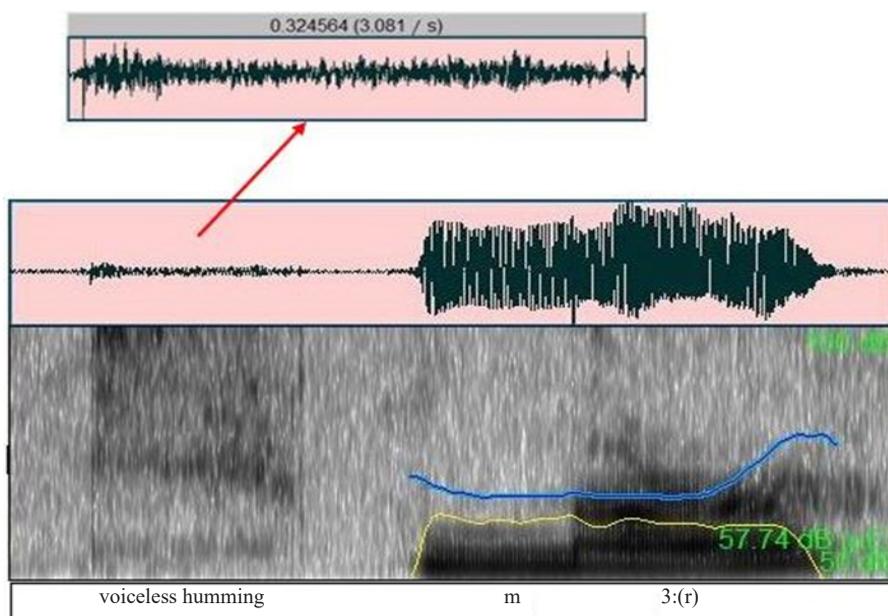


Figure 3. Spectrogram of ‘Myrrh’ by P5

The word ‘myrrh’ is selected because no word in Sundanese, even in *Bahasa Indonesia*, is arranged only by the consonant. Therefore, the present writers expected that all participants failed to pronounce the word. Surprisingly, there were two participants, namely, Participant 5 (P5) and Participant 19 (P19), who successfully pronounced and produced the correct sounds [m:3(r)], and the junctures in both participants’ data were

detected. Data of successful junctures and unsuccessful ones are compared for a better understanding.

Figure 4 describes the spectrograms of ‘myrrh’ produced by Participants 3 (P3) and 18 (P18). These participants were selected because only these two did not show any juncture in the experiment. During the interview, P3 and P18 considered English less important than Sundanese

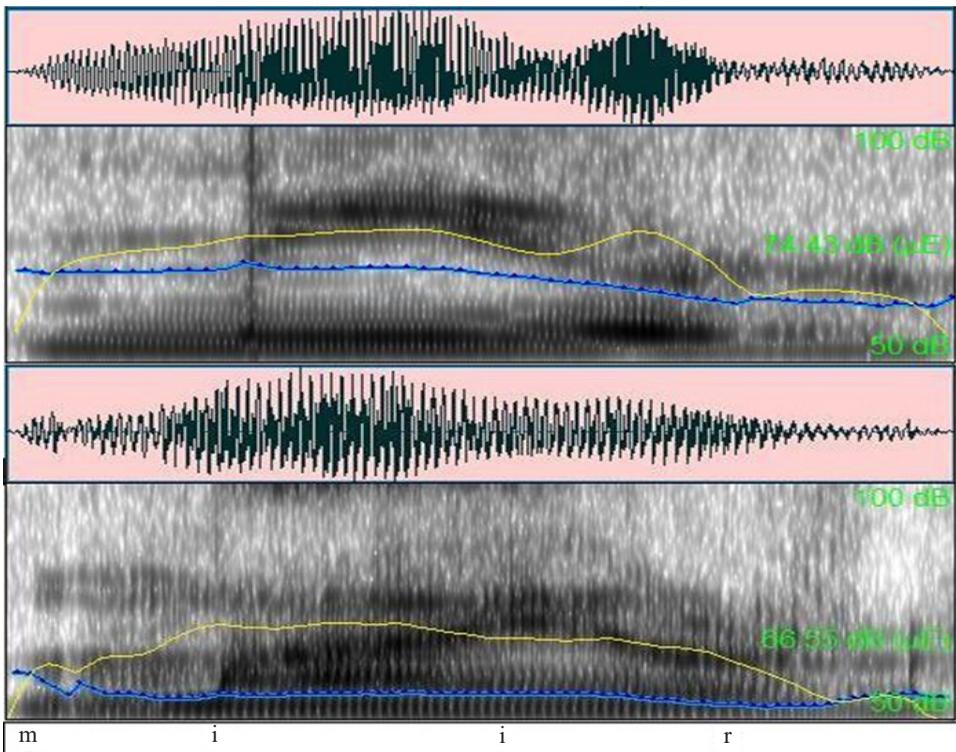


Figure 4. Spectrograms of 'Myrrh' by P3 and P18

or *Bahasa Indonesia*. This attitude may relate to the language ideology of both. Many experts argue that language ideology refers to a speaker's beliefs, feelings, and attitudes towards a certain language (Sheard, 2019). As cited in Sheard (2019), Johnstone proposes that this ideology affects a speaker's use of language, including language choice, register, and even social identity. Therefore, P3 and P18 have not felt obligated to learn or master English since the essential language they consider is Sundanese. As seen above, the forms of the spectrograms are similar and do not indicate the junctures' presence. Both participants pronounced [miir] instead of [m3:(r)].

As explained before, P3 and P18 have not felt obligated to learn or master English because the most important language is Sundanese. This attitude towards the English language differed from the rest of the most successful participants who showed junctures. In a follow-up interview, participants such as P1, P2, P5, P9, P10, P11, P12, P13, P14, P15, and P19 (this participant was considered due to successful pronunciation of *myrrh*) have shown different attitudes from P3 and P18. They considered English an international language used on various levels and occasions. They saw English as a helpful language at some point. Therefore, they have felt the necessity to learn English to a certain degree.

Wibisono et al. (2004) conducted research relating English word familiarity to pronunciation. They revealed four conclusions: (1) familiarity leads to correct pronunciation, (2) familiarity leads to incorrect pronunciation, (3) non-familiar words are pronounced correctly, and (4) non-familiar words are pronounced incorrectly. Of their research, at least two conclusions relate to this study. The first conclusion refers to familiarity leading to correct pronunciation. The more familiar the words are, the better they are pronounced correctly. The second conclusion is that non-familiar words are pronounced correctly. Wibisono et al. (2004) state that this conclusion is drawn simply due to human nature; "... the nature to be more careful when faced to something new" (p. 53). Does this mean it is a coincidence that people can pronounce non-familiar words correctly? A recent study on language familiarity may have the answer. Shinozuka et al. (2021) studied language familiarity and proficiency in the translation process between L1 and English as L2. They experimented on participants with elementary and advanced English proficiency. Their study revealed different brain activation patterns among the participants with varied English proficiency and familiarity. When translating less familiar words, there was greater activation in a specific brain area, namely Broca's area, and the same activation was not detected in familiar words. This activation may relate to people trying to access the language knowledge stored in the brain when treating less familiar words. This

notion is similar to this research, where the participants attempted to recall their specific knowledge of English during the experiment pronouncing English words.

As seen in Table 1, the junctures during the experiment mainly occurred in words containing the sound [f]. The present writers expected it due to the phonological stereotype of Sundanese native speakers. Initially, the Sundanese phonological system does not have a consonant [f]. Should it be found in the Sundanese phonological system, it may result from foreign language influence (Sudaryat et al., 2013). Sundanese native speakers are notoriously incapable of pronouncing consonant [f] simultaneously. Instead of pronouncing [f], the Sundanese native speakers tend to produce [p], a plosive-bilabial consonant.

The word 'phloem' was selected as the representative example of the acoustic analysis. During the experiment, the longest juncture relating to pronouncing consonant [f] occurred in the word 'phloem' by Participant 15 (P15). Therefore, the juncture data of this word is reasonably representative of understanding the occurrence of juncture compared to P18's spectrogram, which did not show a successful juncture.

As described in Figure 5, Participant 18 (P18) produced the phloem's spectrogram. The spectrogram shows no juncture detected during the production of the word 'phloem.' The P18 produced the consonant [p] instead of [f] as it was supposed to. Instead of producing a fricative consonant [f], the P18 produced a plosive-bilabial consonant [p]. In the Sundanese speech community,

words containing a sound or consonant [f] are expected to be produced as the sound or consonant [p]. Perhaps this relates to the phonological stereotype of Sundanese native speakers incapable of producing the

sound or consonant [f]. Thus, ‘phloem’ was pronounced [ploem] instead of [fləʊem]. Fortunately, contrary results were found during the experiment, and one of them was the word production by Participant 15 (P15).

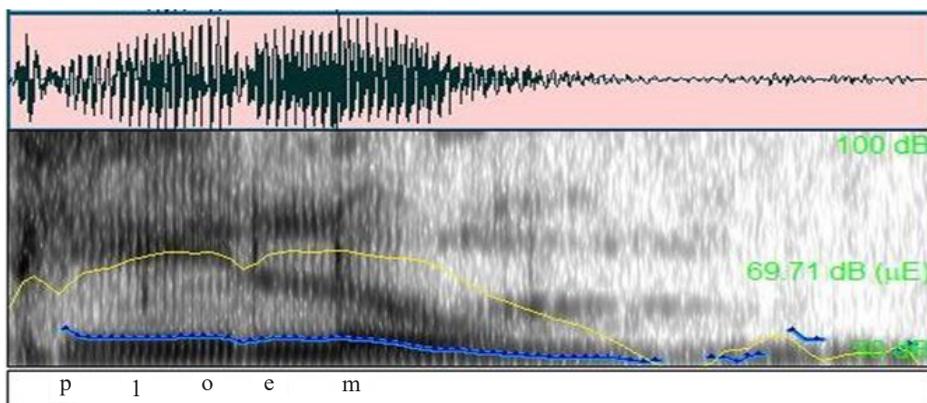


Figure 5. Spectrogram of ‘Phloem’ by P18

Figure 6 below shows the spectrogram of the word phloem produced by Participant 15 (P15). The spectrogram shows a different contour from the one in Figure 5. Preceding the production of the word ‘phloem,’ a fricative airflow was detected. This fricative

airflow might signal the correct sound [f] production in the word ‘phloem.’ A recalling process was suspected to occur during this timeline of airflow. It lasted for 159.6 ms. P15 successfully produced the sound or consonant [f].

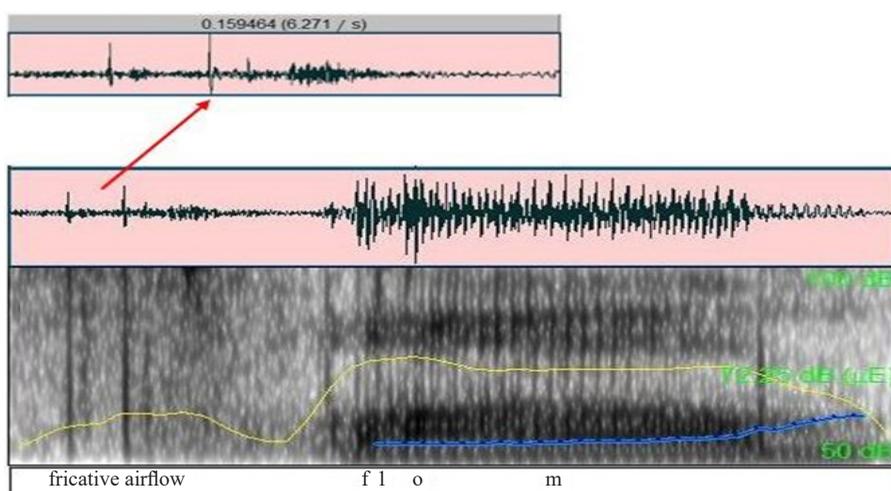


Figure 6. Spectrogram of ‘Phloem’ by P15

However, even though it was a successful juncture in producing sound or consonant [f], the rest of the word was mispronounced. P15 pronounced the word ‘phloem’ as [fлом] instead of the correct one, [fləuem]. Similar contours of the spectrograms were detected while pronouncing the stimuli words containing sound and/ consonant [f] (phlegm, phloem,

phlox, phwoah, and phylum). In those spectrograms, fricative airflows preceding the correct sound production of [f] were visible. The words ‘myrrh’ and ‘phloem’ represent examples of the junctures that occurred at the beginning of the sound production, or we may say that the juncture occurs in the first syllable of monosyllabic words.

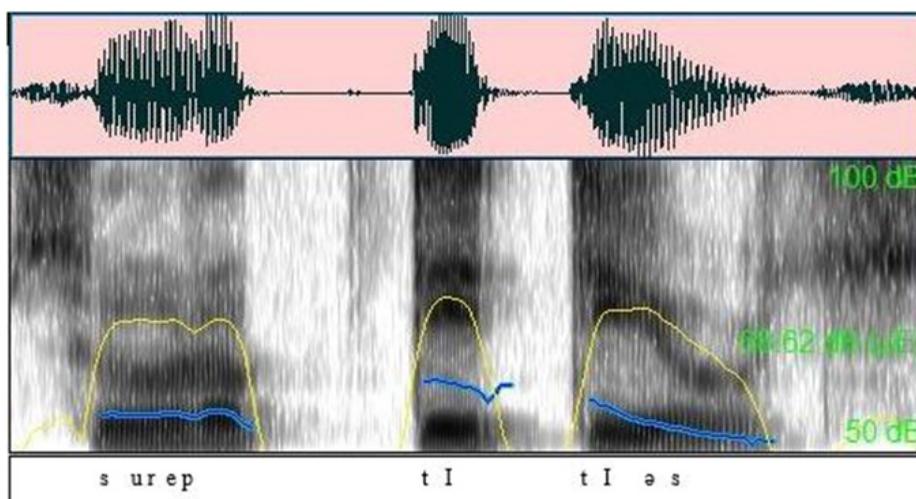


Figure 7. Spectrogram of ‘Surreptitious’ by P18

The junctures in the middle of the words may be represented by ‘surreptitious.’ Figure 7 shows the spectrogram of the word ‘surreptitious’ by Participant 18 (P18). The juncture may be between the second and the third syllables (-ti-) and before the last syllable (-tious). However, the junctures were unsuccessful since both failed to produce the correct sound of the following syllables. These unsuccessful junctures indicate a failed phonetic recalling process. Most of the spectrograms of other participants who failed ‘surreptitious’

production have similar contours to Figure 7.

The word ‘surreptitious’ was selected to represent the juncture in the middle of the word because the juncture detected in the word was the longest. Such a juncture is shown in Figure 8. It is the spectrogram of ‘surreptitious’ production by Participant 4 (P4). It can be observed in Figure 8 that the spectrogram is different from the one in Figure 7. A successful juncture was detected during this word’s production experiment by P4. Unlike the spectrogram in Figure 7, the

spectrogram in Figure 8 shows one juncture only, that is, between the second syllable (-rep-) and the third syllable (-ti-). Although there is only one juncture in the whole word's production, it is a successful juncture as the P4 produced the sounds of the last two

syllables correctly [-tɪfəs], and the duration of the juncture was recorded for 465.8 ms. Similar to the case of Figure 7, the contours of the spectrograms containing junctures by other participants in the word 'surreptitious' are almost identical to Figure 8.

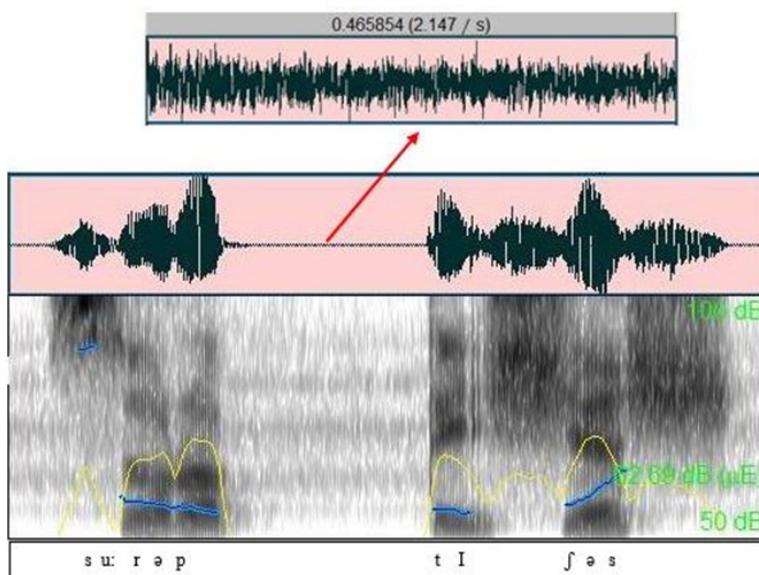


Figure 8. Spectrogram of 'Surreptitious' by P4

The fourth word that may represent a better understanding of juncture is 'daguerreotype.' The juncture detected in this word occurred in the last syllable. The spectrogram analysis without successful juncture is also provided as a previous explanation. Figure 9 shows the spectrogram of the word 'daguerreotype' produced by Participant 18 (P18). It can be observed that the spectrogram shows a juncture in the last syllable of the word (-type). Although a juncture was detected during the experiment, it was unsuccessful, as P18 failed to produce the correct sound of the last syllable. Instead

of producing [-taɪp], P18 pronounced [-tɪp] for the last syllable (-type). Therefore, this research did not include such a juncture since the recalling process was also a failure.

Figure 10 shows the daguerreotype spectrogram produced by Participant 20 (P20). This spectrogram was selected because it was the most suitable one among all spectrograms showing successful junctures. It was also the longest juncture detected during the experiment. As seen, the juncture occurred in the last syllable of the word. It lasted for 1314.2 ms. Even though P20 failed to produce the correct sounds of

the first two syllables (da-guerreo-), the last syllable (-type) was successfully pronounced [taɪp]. A long pause was detected for 1314.2 ms preceding the pronunciation. During this juncture, P20 was suspected

of re-accessing or recalling the phonetic knowledge to produce the correct sound of the last syllable. Thus, this juncture may be regarded as a successful juncture indicating the phonetic recalling process.

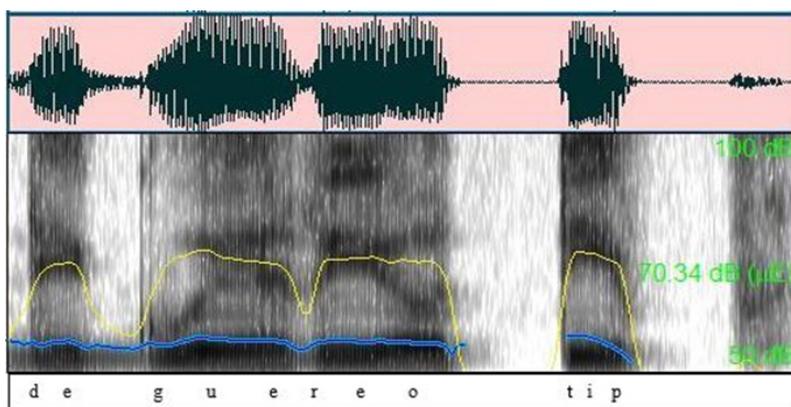


Figure 9. Spectrogram of 'Daguerreotype' by P18

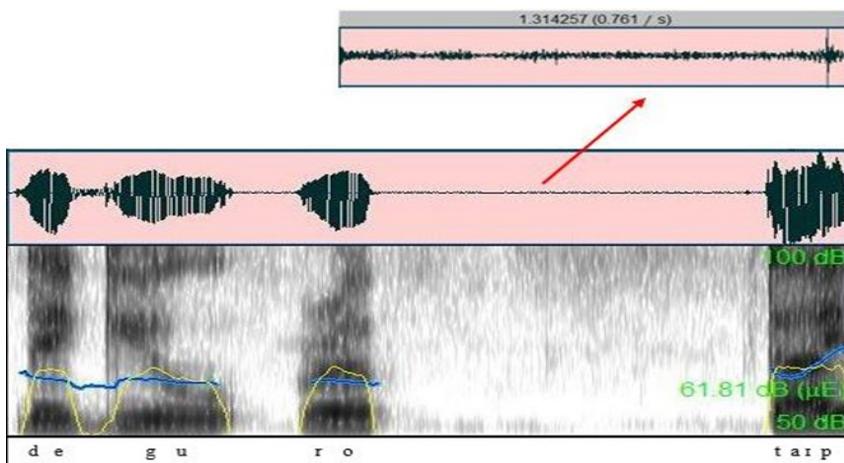


Figure 10. Spectrogram of 'Daguerreotype' by P20

Twenty students were involved in pronouncing twenty unfamiliar English words in this experimental research to detect junctures relating to the phonetic recalling process. The result showed that junctures indicating the phonetic recalling process

were detected. These junctures occurred in different locations at the syllabic level of the words. The durations of junctures were also varied, and the locations where the junctures might occur seemed random or unpredictable. However, there was an

indication that junctures might occur in the most unfamiliar syllable of words. In this research, most junctures occurred in words or syllables containing sound or consonant [f].

Perhaps this relates to the fact that the participants (Sundanese native speakers) are well-known to be unable to produce such a sound or consonant since it is not in the original phonological system of the Sundanese language. During a follow-up interview with several participants, this notion confirmed that the sound or consonant [f] was the most anticipated sound to pronounce correctly. Notice that this recalling process might be influenced by the phonological system of the participant's mother tongue. Such a notion is confirmed by many studies conducted on the first language (L1) experience on non-native perception, that this experience may help identify and process unfamiliar language features (Tsukada, 2019).

Furthermore, this experimental research was not designed to reveal why the durations of junctures varied. Successful junctures involve a specific process called recall in the brain, and phonetic knowledge of the participants affects this recalling process. Therefore, each participant may have a different result in the duration of the junctures. This notion must be explored further in future studies.

CONCLUSION

Juncture is a phonetic feature marking the boundary between and among the words. However, it is not limited to the larger

unit, such as words. This research shows preliminary data of junctures that may as well occur at the syllabic level. The junctures at the syllabic level may be associated with the recalling process, particularly in the EFL context. This recalling process indicates that the speakers try to re-access the phonetic knowledge and information stored in the brain. Junctures marking the recalling process occur in milliseconds, showing how fast the process is. In this experimental research, the junctures varied from the shortest (17.2 ms) to the longest (1314.2 ms). The participant's attitude towards the English language may influence these variations of junctures. It can be observed that the participants consider English to be an unimportant language and show fewer junctures and even no junctures at all when pronouncing English words. In contrast, those considering English a helpful language show more successful juncture. Furthermore, the phonological stereotype of the participants correlates as well with junctures as most junctures detected relate to this stereotype, which in this research is the stereotype of pronouncing the sound or consonant [f].

This research revealed that in monosyllabic words, junctures occurred preceding the pronunciation of the words. In contrast, junctures may occur in multisyllabic words' first, middle, and last syllables. The locations of junctures might happen in the most unfamiliar syllables of the words. The pause duration feature between the syllables identifies junctures. However, in this research, not all pause

duration features show junctures because successful junctures are marked by the successful pronunciation of the following syllables, confirming the phonetic recalling process. Even though it is only preliminary research, this recalling process marked by junctures may be possible. Its implication suggests that such junctures may occur in other speakers, not only Sundanese but also other foreign languages, not only English.

Implications for Practice

The research has found that junctures in an EFL context may relate to phonetic recall. Furthermore, the junctures marking the phonetic recall occur at the syllabic level and in milliseconds (ms). This finding shows that phonetic recall between two language systems is fast. This research also revealed that speakers' attitudes towards the English language might influence the successful junctures. This finding has also informed us that a positive attitude towards English may lead to successful phonetic recall. Therefore, through this research, a positive attitude towards English may result in better phonetic knowledge and pronunciation of English.

Limitation of Study and Recommendation for Future Research

This study is only a preliminary. It involved twenty students who were asked to pronounce twenty unfamiliar English words in the Sundanese EFL context. The English words were carefully selected based on the Sundanese's phonological stereotype and phonotactic constraints. One

hundred eight successful junctures were detected, displayed and described in Table 2. However, the spectrograms of these 108 successful junctures cannot be input all because of limited spaces in this article. Therefore, those who need them may contact the corresponding author if necessary. This study used limited data on participants and pronunciations. Thus, future studies must consider a more extensive data pool and stimuli, not only from the Sundanese native speakers' community but also the other local or regional languages native speakers' communities in Indonesia, as each speech community has a typical characteristic of phonetic and phonological knowledge that is quite interesting to investigate.

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Case Study

Conceptions of Assessment: Perceptions of Physical and Health Education Teachers in Selangor, Malaysia

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ABSTRACT

Physical and Health Education (PHE) assessment is essential for evaluating students' knowledge, skills, and attitudes towards physical and health education. Despite the limited number of studies on conceptions of assessment, more research is needed to focus on PHE teachers in the local context. This quantitative study aims to uncover secondary school PHE teachers' conceptions of assessment by examining four variables: improvement, school accountability, student accountability, and irrelevance. The study involved 268 PHE teachers from two districts in Selangor, Malaysia. Results indicated that improvement received the highest level of agreement, while irrelevance had the lowest. A MANOVA analysis explored the effects of gender and years of teaching experience on teachers' perceptions. The analysis showed no significant gender differences, but teachers with more than 20 years of experience had a significantly different mean perception of assessment compared to all other groups, suggesting that teaching experience affects teachers' conceptions of assessment. The result

of this study provides valuable insights for stakeholders in education, particularly in PHE assessment. Future research may benefit from incorporating qualitative methods to enhance the study's findings on conceptions of assessment among school teachers.

Keywords: Conceptions of assessment, physical and health education, secondary school teachers, teacher perceptions

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INTRODUCTION

Despite government efforts, many Malaysian students have been found to lose interest in PHE courses, leading to a decline in involvement in physical activity (Eswaramoorthi et al., 2022). The researchers added that effective solutions must be identified to address this issue and improve student performance and interest in PHE. One potential solution is to review the assessment practices of PHE teachers (Felis-Anaya et al., 2020). Assessment practices are crucial in all subjects and serve several purposes. They are used to evaluate students' initial knowledge and skills, monitor their progress, and generate data for grading (Bold et al., 2017).

Furthermore, assessments are essential in determining the level of learning that has occurred, subject to certain limitations that students must accept (Mat Yusoff, Arepin and Marzaini, 2022). These limitations refer to the curriculum or syllabus employed to define the boundaries of learning, simultaneously accommodating all students' receptive capacities. Consequently, decisions about assessment outcomes must also consider the selection process, progress measurement, content development, and curriculum (Hosp et al., 2018). Thus, educational administrators must utilise the data gathered from the assessment process as a primary reference to adapt and enhance future learning.

Recently, there has been a growing interest among researchers in the assessment of PHE subjects. The significance of assessment in developing teaching and

learning processes cannot be overstated (Wang et al., 2018). Assessment enables teachers and students to draw conclusions from the data and take appropriate action. Zimmer and Matthews (2022) emphasise that such actions can significantly modify teaching and learning or provide a snapshot of student achievement at a particular time. However, the production and utilisation of classroom data alone do not ensure better student outcomes; the quality of the data and the ability to interpret it are crucial factors (Shim & Lee, 2020).

Furthermore, Shim and Lee (2020) highlight that teachers' assessment approaches can have a wide range of effects on student outcome indicators. Assessment can be a valuable educational tool that offers teachers and students crucial insights into student learning. However, it can also be a low-stakes, anxiety-inducing activity not used to inform teaching and learning. Thus, educators need to develop effective assessment practices that yield high-quality data and utilise this data to inform teaching and learning strategies to promote better student outcomes.

In line with the development of the assessment process, there has been a significant change in Malaysia's National Education Assessment System (NEAS) for the past 15 years. NEAS was introduced to transform the traditional assessment methods (test and exam-oriented) into a more holistic system by providing a set of indicators for evaluating students' potential, learning readiness, and overall performance. One notable alteration or improvement of

the policy is the introduction of School Based Assessment (SBA) in both primary and lower secondary schools in 2011 and 2012 (Veloo & Md-Ali, 2016). In general, SBA is considered a holistic assessment that allows teachers and education administrators to assess students' cognitive (intellectual), affective (emotional and spiritual), and psychomotor (physical) aspects.

In terms of practicality, SBA is a policy that entails a comprehensive evaluation of a student's academic progress through four assessment methods: school assessment (PS), physical activity, sports, and co-curricular (PAJSK), psychometric assessment (PPsi), and classroom assessment (CA). According to Chin et al. (2019), SBA can be conducted as summative (mid-year and final examination) and formative assessments during the teaching and learning sessions. While this policy has been widely recognised and accepted among teachers, implementing the assessment has been challenging, especially in the PHE subject. Some scholars agreed with this idea because they said that the testing of PHE subjects was not standardised or evaluated in a planned way before SBA was put in place (Veloo & Md-Ali, 2016).

The study of teachers' conceptions of assessment among PHE teachers is a crucial area of assessment research. Brown (2004) defines assessment conceptions as individuals' perceptions of assessment based on their experiences. These conceptions have a significant impact on how teachers evaluate the learning and achievements of

their students. Even though several studies have investigated assessment concepts in various educational contexts, there is a notable research void in physical and health education (PHE) teaching, as there is still a need for more literature on PHE teachers' conceptions of assessment. Prior research in this field has primarily concentrated on areas such as content knowledge and general perceptions (Abduh, 2021; Margot & Kettler, 2019; van der Kleij, 2019), omitting a comprehensive examination of PHE teachers' distinct assessment conceptions and ultimately warrants an urgency on the in-depth study about the conceptions of assessment. Therefore, this study aims to investigate the assessment conceptions of secondary school Physical and Health Education (PHE) teachers and explore prospective gender and teaching experience differences. The investigation into the assessment beliefs of secondary school PHE teachers can lead to actionable results that benefit teachers and students, inform educational practices and policies, and foster a deeper understanding of assessment practices within the context of Physical and Health Education. In addition, understanding perspective, gender and teaching experience differences can provide valuable insights for promoting equity, diversity, and inclusion in secondary school PHE assessment practices. The ultimate goal of the research is to provide evidence-based recommendations for enhancing assessment practices and pedagogy in Physical and Health Education to benefit both teachers and students.

Assessment in Malaysian Secondary School Physical and Health Education Curriculum

Physical and health education (PHE) is a subject of considerable significance in Malaysian secondary schools, promoting healthy lifestyle habits among students. The assessment of PHE is a crucial component that assesses students' knowledge, skills, and attitudes towards physical and health education (Lacy & Williams, 2018). The assessment in PHE comprises formative and summative assessments (Yüksel & Gündüz, 2017). Formative assessment is conducted throughout the learning process, enabling students to identify their strengths and weaknesses in the subject, thus facilitating improvements and progress towards achieving the learning outcomes. In PHE, classroom discussions, self-reflection, peer feedback, and practical assessments are commonly used formative assessment methods (Eather et al., 2019).

In contrast, summative assessment occurs at the end of the learning process and is used to measure the overall achievement of students (Eather et al., 2019). This assessment method evaluates how students have met the learning objectives and standards set for the subject. Common summative assessment methods in PHE include written tests, practical assessments, and projects. Common summative assessment methods in PHE include written tests, practical assessments, and projects. Furthermore, PHE assessment in Malaysian secondary schools aligns with the National Physical and Health Education Curriculum,

which outlines the expected learning outcomes for each level of education (Rahman et al., 2021). The assessment is, therefore, designed to evaluate the students' attainment of these learning outcomes, contributing to the overall development of students' knowledge and skills in PHE.

In Malaysian secondary schools, the Secondary School Curriculum Standard (KSSM) for PHE is made up of six different learning areas that are meant to give students the knowledge, skills, and attitudes they need for physical and health education (Som, 2020). These learning areas are Physical Fitness and Health, Sports and Games, Outdoor Education, Health Promotion and Disease Prevention, Personal and Social Development, and Safety and First Aid. The learning areas in the curriculum document are simplified in Table 1.

Each of these learning areas has specific learning outcomes aligned with the overall goals and objectives of the KSSM syllabus. For example, the Physical Fitness and Health learning area focuses on helping students understand the principles of physical fitness and assess their fitness levels. Some specific learning outcomes for this learning area include understanding the components of physical fitness, identifying appropriate exercise programs based on individual needs, and monitoring one's fitness progress.

Similarly, the Sports and Games learning area aims to develop students' skills and knowledge in various sports and games. The learning outcomes for this area may include demonstrating knowledge of the rules and regulations of different sports and games,

Table 1
Learning areas in the Malaysian PHE syllabus

Learning Areas	Sample Learning Outcomes
Physical Fitness and Health	<ol style="list-style-type: none"> 1. Understand the principles of physical fitness. 2. Assess one's fitness levels and set fitness goals. 3. Identify appropriate exercise programs based on individual needs. 4. Monitor and track personal fitness progress.
Sports and Games	<ol style="list-style-type: none"> 1. Demonstrate knowledge of the rules and regulations of various sports and games. 2. Exhibit competence in fundamental motor skills required for different sports and games. 3. Identify and analyse strategies used in various sports and games.
Outdoor Education	<ol style="list-style-type: none"> 1. Demonstrate understanding and appreciation of nature and the environment. 2. Engage in outdoor activities promoting teamwork and leadership skills. 3. Practice safety measures and respect for the environment during outdoor activities.
Health Promotion and Disease Prevention	<ol style="list-style-type: none"> 1. Understand the importance of maintaining good health through preventive measures. 2. Identify common diseases and their prevention strategies. 3. Promote healthy lifestyle choices among peers and the community.
Personal and Social Development	<ol style="list-style-type: none"> 1. Develop self-awareness and emotional intelligence. 2. Enhance communication and interpersonal skills. 3. Demonstrate responsible decision-making in various situations.
Safety and First Aid	<ol style="list-style-type: none"> 1. Apply basic first aid techniques in emergencies. 2. Demonstrate knowledge of safety protocols in different settings. 3. Promote safety awareness and injury prevention among peers.

Note. Adopted from Kementerian Pendidikan Malaysia (KPM, 2016)

demonstrating competence in fundamental motor skills, and identifying and analysing strategies used in various sports and games (Som, 2020). The other learning areas also have specific learning outcomes designed to promote students' development in physical and health education. These outcomes guide the assessment process in PHE and ensure that students have achieved the expected standards and objectives set by the KSSM syllabus.

Conceptions of Assessment Theory

According to researchers, assessment serves at least three primary purposes: improving teaching and learning, certifying students' learning, and holding schools and teachers accountable (Deneen & Brown, 2016; Nisbet & Warren, 1999). Brown (2004) identified four primary conceptions of assessment held by teachers. The first conception emphasises the usefulness of assessment in enhancing teaching and learning by providing high-quality information for

decision-making. This conception is linked to the term ‘formative’ and depends on the ability of assessment to describe or diagnose a student’s achievement or performance. Furthermore, the information provided by the assessment must be of sufficient quality to be considered valid, reliable, and accurate. However, a critical consideration is whether the assessment tools offer comprehensive and unbiased insights into a student’s abilities. There is an inherent challenge in ensuring that assessments are both comprehensive and pertinent (Mat Yusoff, Leng, et al., 2023). Over-reliance on standardised metrics may overlook individual learning trajectories, potentially leading to one-dimensional interpretations of students’ achievements.

The second conception emphasises accountability for using society’s resources by teachers, schools, and systems. This conception aligns with school accountability, which entails assessing performance outcomes and determining how well schools do. Brown (2004) defined school accountability as having two dimensions: indicating the quality of education in a school and improving the quality of instruction. However, a point of contention could be the notion of accountability itself. Does measuring school performance truly offer an accurate reflection of its educational prowess? Or does it inadvertently promote a “teaching to the test” mindset, potentially sidelining holistic education? Moreover, as schools become more data-driven, there is a risk that they might prioritise metrics over genuine learning experiences (Mat Yusoff,

Leng et al., 2023). This tension between quantifiable outcomes and qualitative educational experiences remains a critical point of discussion in modern pedagogy.

The third conception of assessment focuses on individual student accountability for their learning through meaningful assessment techniques. The purpose of holding students accountable for their learning is to ensure they meet the requirements for advancement in education or employment. While accountability may motivate some students, it also instils a fear of failure in others, potentially undermining intrinsic motivation and a genuine love for learning. It is crucial to balance accountability and foster a growth mindset where students see assessments as feedback mechanisms rather than definitive judgments.

The fourth and final conception of assessment is characterised by the view that assessment has no legitimate place in teaching and learning. This conception is based on the belief that assessment, as a formal and systematic procedure for evaluating student performance, lacks a valid structure in the teaching and learning process. While critiques such as curbing teacher autonomy, undermining their professionalism, and shifting the focus from authentic learning are valid, dismissing assessment in its entirety seems extreme. After all, without some form of evaluation, how can educators determine the effectiveness of their methods or pinpoint areas for improvement? Furthermore, not all assessments hamper teacher autonomy;

when utilised effectively, formative assessments can empower students and teachers, enhancing the learning experience (Mat Yusoff, Arepin, Marzaini, 2022). Assessment is also criticised for its adverse effects on teacher autonomy and professionalism and for diverting attention away from the true purpose of teaching, namely, student learning. It is important to note that both formative and summative assessments require similar rigour and technical quality levels to ensure the accuracy of mid-course corrections (Hattie & Smith, 2020; Scriven, 1991).

In Physical and Health Education (PHE) context, Brown's conception of assessment as a tool for enhancing instruction and learning becomes especially relevant. In PHE, formative assessments are crucial in providing instructors and students with continuous feedback, which acts as a compass to guide their progress towards achieving specific learning objectives. For instance, practical assessments in PHE can serve as a dynamic mirror reflecting students' proficiency in various physical skills, illuminating areas where improvement is warranted. With this valuable knowledge, PHE educators can modify their instructional strategies and interventions to provide individualised support, thereby nurturing an environment where students can actively advance their physical abilities and health knowledge. Moreover, incorporating self-reflection and peer feedback mechanisms in PHE parallels Brown's vision, enabling students to engage in metacognition, identify their strengths

and weaknesses in physical activities, and make informed adjustments to their learning strategies, fostering a sense of agency and self-directed learning.

In addition, the concept of assessment as a means of holding schools and instructors accountable is seamlessly incorporated into the realm of PHE. The assessment procedures utilised in PHE are in strict accordance with the National Physical and Health Education Curriculum (Kementerian Pendidikan Malaysia, 2016) and each educational level's anticipated learning outcomes are meticulously outlined. This curriculum is the basis for evaluating students' progress in achieving these goals, ensuring that schools and educators are held accountable for ensuring students satisfy the required educational standards in physical and health education. In essence, Brown's concept not only empowers instructors and students to improve their educational journey but also serves as a crucial framework that safeguards the quality and consistency of PHE by establishing clear benchmarks and expectations for students and educational institutions. Moreover, the conception of assessment as a tool for holding students accountable for their learning also applies to PHE. Summative assessments, such as written tests and projects, evaluate students' overall achievement in PHE and determine whether they have met the required standards. These assessments certify students' learning and ensure they are adequately prepared for future educational and employment opportunities. Finally, Brown's conception of assessment as

irrelevant or pernicious to the work of teachers and students' lives does not apply to PHE. PHE is an essential subject that promotes healthy lifestyle practices among students and is critical in developing their physical and mental well-being (Sierra-Díaz et al., 2019).

In the context of PHE, assessment practices are not just about grades or benchmarks but about cultivating lifelong health habits and physical well-being (Sierra-Díaz et al., 2019). The infusion of Brown's conceptions into PHE underscores the value of assessment but also necessitates a broader reflection. It prompts educators, policymakers, and stakeholders to critically evaluate these assessments' nature, purpose, and outcome to ensure they genuinely serve students' holistic development. Assessment is crucial in ensuring students achieve the learning outcomes and develop the necessary skills to lead a healthy lifestyle. Therefore, Brown's conceptions of assessment theory are relevant to the assessment practices in PHE, as assessment is used to improve teaching and learning, hold schools and teachers accountable, and certify students' learning.

Conception of Assessment among Physical and Health Education Teachers

Teaching experience may have a significant impact on teachers' conceptions of assessment. Assessment plays a significant role in teaching and learning, particularly in Physical and Health Education (PHE), which evaluates students' knowledge, skills,

and attitudes related to physical activity, health, and wellness. PHE teachers are crucial in developing and implementing effective assessment strategies that align with curriculum goals and provide valuable feedback to students. Therefore, understanding PHE teachers' assessment conceptions is critical to promote effective assessment practices. Effective assessment practices in PHE must align with the curriculum and reflect the expected learning outcomes. It includes measuring students' knowledge and skills in exercise physiology, biomechanics, sports nutrition, and injury prevention. Additionally, PHE assessment must consider the development of students' positive attitudes towards physical activity, health, and wellness. It is essential to create assessment strategies that enable students to demonstrate their learning and provide feedback to help them improve their understanding and performance. Effective PHE assessment practices can contribute to positive student outcomes, including improved academic achievement, motivation, and engagement. Therefore, this literature review aims to explore previous studies on PHE teachers' assessment conceptions.

The research done by MacPhail et al. (2021) focuses on the importance of aligning learning outcomes, assessment, and instructional practices in Physical Education Teacher Education (PETE) programs; the researchers introduce instructional alignment as a way to exemplify coherent planning of learning outcomes, assessment, and instruction in PETE modules. The

study shares three examples of how instructional alignment can be embedded in PETE modules using the backward design process. The examples demonstrate nuances in instructional alignment, such as supporting learning progression, clarity of success criteria, and enhancing learning by embedding assessment into the learning experience. The paper emphasises the importance of faculty buy-in, modelling good practice, and encouraging pre-service teachers to embed instructional alignment in their planning, preparation, and practices. MacPhail et al. (2021) noted that instructional alignment can support effective assessment practices. PHE teachers can design and implement effective assessment strategies that promote student learning and well-being by aligning learning outcomes, assessment, and instruction. The study highlights the importance of incorporating assessment into the learning experience and providing clear success criteria to support student understanding and performance. While MacPhail et al. (2021) stress the importance of instructional alignment in PETE modules, one could argue that the practical application of such alignment can be challenging given students' diverse learning needs and backgrounds. Additionally, relying solely on instructional alignment might mean paying more attention to flexibility and adaptability in teaching approaches, which can be vital in addressing unforeseen challenges in the learning environment.

Furthermore, Macken et al. (2020) look into how much primary school pre-service teachers (PSTs) use assessment

for learning (AfL) skills when they teach physical education during their school placement. The study offers important insights into the challenges of primary pre-service teachers (PSTs) in transferring their assessment knowledge gained in teacher education programmes to the primary classroom setting. The findings emphasise the significance of teacher educators' modelling, mentoring, and scaffolding to enhance PSTs' assessment literacy in enacting assessment for learning (AfL) during school placement. The study also underscores the need for providing PSTs with opportunities to practice AfL with primary school students to develop higher levels of assessment literacy during school placement. Not only that, Macken et al. (2020) highlighted the significance of AfL strategies, including self- and peer-assessment, in developing PHE teachers' assessment literacy. Additionally, the study suggests that PSTs may require more time and opportunities to practice and develop AfL strategies, necessitating ongoing professional development for PHE teachers. As Macken et al. (2020) illuminate the challenges faced by PSTs in enacting AfL, it is important to consider whether the educational structures currently in place sufficiently allow for the level of mentoring and modelling recommended. Moreover, while crucial, the emphasis on AfL strategies might overshadow other pedagogical skills necessary for holistic teacher development, warranting a broader approach to PHE teacher training.

Another study by Dyson et al. (2018) investigates primary school teachers' perceptions of physical education in Aotearoa, New Zealand and how much education, sports, and health policies influence these perceptions. A mixed methods approach was employed, including a survey of 487 classroom teachers from 133 primary and intermediate schools across five regions and interviews with 41 teachers. The findings reveal that policies and practices have significantly impacted what occurs in primary school physical education, often resulting in practices that do not align with the national curriculum. Dyson et al. (2018) highlighted the need for teacher educators to prioritise the alignment of physical education practices with curriculum expectations. The findings by Dyson et al. (2018) highlight an essential disjunction between policies and real-time practices. However, one must question whether the current educational infrastructure in Aotearoa, New Zealand, provides adequate support for teachers to align with curriculum expectations effectively. Also, while the study focuses on policy impact, deeper insight might be needed into the intrinsic challenges and needs of teachers that could be independent of or exacerbated by these policies, thus demanding a multi-faceted approach to address the issue. Furthermore, the study suggests that these policies and practices have affected teacher confidence and may impede effective assessment practices. Therefore, assessment literacy is essential for physical and health education teachers to enhance their confidence and ability to

assess student learning effectively (Looney et al., 2018).

Overall, these studies show that teachers have different ideas about how to use assessments. Some see them as a way to improve teaching and learning, while others see them as a way to prove that students have learned and hold themselves responsible for their student's progress (Dyson et al., 2018; Macken et al., 2020; MacPhail et al., 2021). However, there are also variations in the extent to which teachers emphasise formative versus summative assessment practices (Chng & Lund, 2018). The variation in formative versus summative assessment practices among teachers may have implications for student learning and achievement. For example, if teachers focus primarily on summative assessment, students may not receive timely and specific feedback to support their learning and growth (Cizek et al., 2019). On the other hand, Cizek et al. (2019) added that if teachers prioritise formative assessment, students may have more opportunities to receive feedback and adjust their learning strategies in real-time.

In addition, the emphasis on using assessment to improve teaching and learning aligns with the current trend towards evidence-based teaching practices in PHE. This approach uses assessment data to inform instructional decisions and design interventions tailored to individual student needs. By using assessment to improve teaching and learning, PHE teachers can develop more effective and engaging lessons that meet the diverse needs of their

students (Mandigo et al., 2019). Overall, the conception of assessment held by teachers has essential implications for the effectiveness of their teaching practices and the outcomes of their students. It is, therefore, crucial for teacher education programs and professional development opportunities to emphasise the importance of both formative and summative assessment practices and the use of assessment data to inform instructional decision-making.

Despite significant research on teachers' conceptions of assessment in various contexts, further investigation is required to obtain more nuanced insights (Yetkin & Zekiye, 2020). Specifically, only a few studies have been conducted in the Malaysian context. Moreover, most existing studies have focused on teachers' conceptions of assessment in primary schools and have been subject-specific. Consequently, there is a need to explore the conceptions of assessment held by secondary school PHE teachers in Malaysia to gain a more comprehensive understanding of their assessment purposes and practices in PHE subjects. The present study aimed to investigate the conceptions of assessment among secondary school PHE teachers in the local context, which has been relatively understudied compared to other contexts. The study adopted a quantitative research approach and aims to address the following research questions:

1. What is the secondary school PHE teachers' conception of assessment?
2. Is there any difference between male and female PHE teachers' conception of assessment?
3. Is there any difference between teaching years and assessment conception among secondary school PHE teachers?

METHODOLOGY

The current study was undertaken to investigate the conceptions of assessment held by secondary school PHE teachers to gain insights into their perspectives and the potential impact of these perspectives on assessment-related activities, teaching, and learning processes. Given the significant role that assessment plays in shaping education, it is essential to understand how teachers conceive of assessment, as this can influence their assessment practices and, in turn, student learning outcomes. Therefore, the study aimed to provide valuable insights that can be used to inform educational policy and practice. By identifying and analysing the conceptions of assessment held by secondary school PHE teachers, the study aimed to contribute to the body of knowledge on teacher beliefs and practices related to assessment, particularly in the local context. The study's findings have implications for developing effective professional development programs that consider the conceptions of assessment held by teachers and how these conceptions can be influenced to improve assessment practices and enhance student learning outcomes.

Research Design

The research design for this study utilised a cross-sectional survey methodology that employed quantitative research methods

to collect and analyse data. The data were obtained via a 5-point Likert-type scale that allowed respondents to express their opinions on assessment-related issues. The survey results were quantitatively analysed to better understand the participants' perspectives on assessment. This approach allowed for an objective assessment of the secondary school teachers' conceptions of assessment, and the findings can be used to inform the development of effective assessment practices that align with their perspectives (Chua, 2016).

Sample

This study was carried out in two districts of Selangor. The study population for this research comprised approximately 620 PHE teachers from secondary schools in two districts of Selangor, Malaysia, as the Ministry of Education reported in 2023. To ensure a representative sample, stratified simple random sampling was utilised to select 230 secondary school teachers, from

whom participants were recruited via an online questionnaire. The data collected exceeded 268 from PHE teachers, and 268 sample data were deemed measurable and included in the analysis (as detailed in Table 2). Data collection for this study was conducted between October 2022 and December 2022. Although the sample size may appear relatively small, it is still considered representative and valid for statistical analysis (Sekaran & Bougie, 2016).

Moreover, the researchers' rigorous screening process ensures that only high-quality data is included in the final analysis, thereby enhancing the reliability and validity of the findings. Therefore, the study included 268 secondary school teachers, 63 male and 205 female. The sample also includes teachers with less than a year of teaching experience, more than 15 years of teaching experience, and academic qualifications, as shown in Table 2.

Table 2
Demographic information of the participants

Gender	Frequency
Male	63
Female	205
Total	268
Years of Teaching	
1–5 years	118
6–10 years	74
11– 15 years	29
16–20 years	19
More than 20 years	28
Total	268

Academic Qualification	
Bachelor's Degree	245
Master's Degree	23
Total	268

Instrumentation

Brown's (2006) Teachers' Conceptions of Assessment (TCoA) inventory is a widely used and valid measure of teachers' assessment conceptions. The inventory consists of 27 items that assess four

subscales, including school accountability, student accountability, assessment improves education, and assessment is irrelevant. Respondents rate each item on a 5-point Likert scale, ranging from strongly disagree to strongly agree. The TCoA inventory has been used in various cultural contexts, including New Zealand, Queensland, the Netherlands, Spain, China, Hong Kong, and India. Brown's studies in New Zealand and Queensland have demonstrated the validity of the inventory, with acceptable fit indices (New Zealand: $\chi^2 = 841.02$; $df = 311$; $RMSEA = .057$; $TLI = .87$; Queensland: $\chi^2 = 1492.61$; $df = 311$; $RMSEA = .074$; $TLI = .80$).

A pilot study was conducted to evaluate the soundness of the survey instruments used in this study, and the data gathered was subjected to Exploratory Factor Analysis (EFA) in its initial stage of factor analysis. Moreover, the reliability of the survey was determined using Cronbach's alpha in SPSS. The construct validity of the study was measured using both convergent and discriminant validity to assess the accuracy and distinction of the study (Grobler & Joubert, 2018; Pallant, 2016). The initial analysis of the TCoA construct reveals skewness values ranging from $-.198$ to $-.645$. Correspondingly, the kurtosis values ranged from $-.284$ to 1.354 , indicating no normality issues (Demir, 2022; Hair et al., 2017). The TCoA's reliability ranged appropriately. The TCoA's reliability ranged appropriately. The improvement scale obtained the highest Cronbach's alpha value ($\alpha = .920$). Meanwhile, the lowest value ($\alpha =$

$.629$) was School Accountability. From the complete results of the TCoA's reliability, there is one variable alpha that was less than $.700$, School Accountability ($\alpha = .629$). According to Pallant (2013), if the items are less than 10 in a variable, it is hard to get a high value of Cronbach's alpha, so it is acceptable if the value is $>.05$.

The use of established instruments and surveys is a common research practice to guarantee the reliability and validity of the data collected (Fowler, 2013). In this study, adopting a previously validated questionnaire by Brown (2006) provided a basis for comparison, which increased the credibility and generalizability of the findings. Additionally, it allowed for a comprehensive investigation of TCoA among PHE teachers. The TCoA study used the present inventory to examine secondary school teachers' conceptions of assessment in the local context. The inventory's reliability and validity make it a valuable tool for teachers' professional development and assessment research programs.

Data Collection

The researchers conducted the study by distributing the instrument to participants from 62 secondary schools in two districts in Selangor, Malaysia. The researchers in this study ensured ethical standards were followed by obtaining permission letters for distributing the instrument and obtaining approval from the Educational Policy Planning and Research Division of the Ministry of Education Malaysia.

Data were collected online, and responses were compiled using Microsoft Excel and SPSS for statistical analysis. Using online questionnaires for data collection has become increasingly popular in recent years due to the convenience it offers researchers and participants. Additionally, this approach allows for easy data management and analysis.

Data Analysis Procedures

The Statistical Package for the Social Sciences (SPSS version 27) software program analysed the data. Descriptive and inferential statistics were initially used to analyse the data, with the mean value of each item calculated and interpreted. The Pearson product-moment correlation coefficient was also utilised to assess the magnitude and direction of the relationships between each dependent variable. A multivariate analysis of variance (MANOVA) test was conducted while ensuring all MANOVA assumptions were met for each independent variable to examine gender and experience differences among participants. The significance of the differences among the variables was further assessed using ANOVA Bonferroni correction, followed by a follow-up ANOVA test. These statistical analyses were used to explore and elucidate the findings more comprehensively.

RESULTS

This study examines the relationship between the duration of teaching experience and the conceptions of assessment held by secondary school teachers. Various statistical

techniques were utilised to analyse the survey data, including descriptive statistics to summarise the data, t-tests to compare the means of two groups, and multivariate analysis of variance (MANOVA) to assess the differences between multiple groups. By examining the relationship between years of teaching experience and teachers' conceptions of assessment, this study sought to provide insights into how experience may shape how teachers approach assessment in the PHE classroom.

Research Question 1: The Conception of Assessment (COA)

This study examined the participants' assessment conceptions using descriptive statistics. The mean values of each variable were calculated and analysed, as presented in Table 3. A higher mean value indicated greater agreement with the corresponding statement. It gave a comprehensive understanding of the participants' assessment beliefs and perceptions.

Table 3 presents the participants' conceptions of assessment, which were examined through descriptive statistics. The TCoA-III Scale measured four levels of assessment conceptions: Improvement, Student Accountability, Irrelevance, and School Accountability. The mean values of the variables were calculated, and higher mean values indicate a higher level of agreement. The findings revealed that the Improvement conception had the highest mean value ($M = 3.95$, $SD = .52$), followed by the School Accountability conception ($M = 3.92$, $SD = .57$). Both Improvement

and School Accountability conceptions had a high level of agreement among the participants. The Student Accountability conception was ranked third and still had

a high level of agreement ($M = 3.91$, $SD = .51$), while the Conception of Irrelevance held the lowest mean value of all variables ($M = 3.85$, $SD = .57$).

Table 3
Participants overall conceptions of assessment

Conception of Assessment	<i>N</i>	<i>M</i>	<i>SD</i>
Improvement	268	3.95	.52
School Accountability	268	3.92	.57
Student Accountability	268	3.91	.51
Irrelevance	268	3.85	.57

Research Question 2: The Difference between Gender on CoA

In order to investigate potential differences in assessment conceptions between genders, a one-way between-groups multivariate analysis of variance was carried out. The assumptions for this analysis were thoroughly examined, and no significant violations were detected. The results of this analysis (Table 4) indicate no statistically significant difference between males and

females in their combined dependent variables related to assessment conceptions, as demonstrated by the F -value of 1.60 and p -value of .175. Additionally, the effect size of this analysis was determined to be partial eta squared (.024) and the multivariate effect size was calculated using Wilks Lambda (.976), both of which indicate a small effect size. The findings are further presented in Table 3.

Table 4
Wilks' *A* for differences in conceptions among gender

	Wilks' <i>A</i>	<i>F</i>	<i>p</i>	Partial eta ²
Gender	.976	1.60	.175	.024

Note. $p = .05$

Table 5 shows that a Bonferroni-adjusted level of .012 was applied to each ANOVA test for each dependent variable. Results indicated no significant differences between males and females on any of the four conceptions of assessment. For instance, there was no significant difference

between males and females regarding the improvement conception ($F = .514$, $p = .216$, partial eta squared = .006), with females having a slightly higher mean score ($M = 3.97$) compared to males ($M = 3.88$). Similarly, no significant differences were found between males and females on

the student accountability conception ($F = 2.82, p = .094, \text{partial eta squared} = .011$), school accountability conception ($F = .608, p = .436, \text{partial eta squared} = .002$), and irrelevance conception ($F = 4.81, p = .029, \text{partial eta squared} = .018$).

Table 5
MANOVA for differences in conceptions of assessment based on gender

Conceptions	Male	Female	<i>F</i>	<i>p</i>	Partial eta ²
Improvement	3.88	3.97	1.54	.216	.006
Student Accountability	3.82	3.94	2.82	.094	.011
School Accountability	3.88	3.93	.608	.436	.002
Irrelevance	3.71	3.90	4.81	.029	.018

Research Question 3: The Difference Between Years of Teaching on CoA

To explore the impact of years of teaching on teachers’ conceptions of assessment, a one-way between-groups multivariate analysis of variance was conducted after testing the preliminary assumptions of normality, linearity, univariate and multivariate outliers, homogeneity of variance-

covariance matrices, and multicollinearity. The results showed a significant difference between years of teaching on the combined dependent variables, with a significant *F* value of 2.69 and *p*-value of .001, along with a Wilks Lambda value of .851, as presented in Table 6. These findings suggest that years of teaching significantly influence the conceptions of assessment teachers hold.

Table 6
Wilks’ A for differences in conceptions among years of teaching

	Wilks’ A	<i>F</i>	<i>p</i>	Partial eta ²
Years of Teaching	.851	2.69	.001	0.108

Note. *p* = .05

Subsequent univariate ANOVAs, as shown in Table 7, demonstrated significant differences in student accountability ($F = 5.76, p = .001, \text{partial eta squared} = .080$) across different years of teaching experience. Specifically, teachers with more than 20 years of teaching experience had higher mean scores on student accountability conceptions ($M = 4.33,$

$SD = .42$ respectively) compared to those with fewer years of teaching experience. Meanwhile, there were no significant differences in improvement ($F = 3.36, p = .010, \text{partial eta squared} = .049$), school accountability ($F = 1.29, p = .276, \text{partial eta squared} = .019$) and irrelevance ($F = 3.29, p = .012, \text{partial eta squared} = .048$) across different years of teaching experience. These

findings suggest that experience may play a role in shaping teachers' conceptions of assessment, particularly in the domain of student accountability.

Since there is a significant difference in student accountability across different years of teaching experience, the post hoc (Games-Howell) was executed. The Games-Howell

post-hoc test is used when the assumption of homogeneity of variance is violated, and it performs pairwise comparisons of group means while controlling for Type I error rates. Moreover, this test is more conservative than other post-hoc tests, such as Tukey's HSD, and is useful when the sample sizes are unequal.

Table 7

MANOVA for differences in conceptions of assessment based on years of teaching

Conceptions	1 – 5 years	6 – 10 years	11 – 15 years	16 – 20 years	> 20 years	<i>F</i>	<i>p</i>	Partial eta ²
Improvement	3.86	3.97	3.95	4.09	4.20	3.36	.010	.049
Student Accountability	3.85	3.88	3.88	3.90	4.33	5.76	.001	.080
School Accountability	3.86	3.97	3.90	3.92	4.11	1.29	.276	.019
Irrelevance	3.76	3.86	3.78	3.99	4.16	3.29	.012	.048

The Games-Howell post-hoc test was conducted to examine the mean differences in years of teaching experience between the different groups of teachers (Table 8). The results indicated no significant differences in mean years of teaching experience between the groups of STUA, 1 – 5 years, 6 – 11 years, 11 – 15 years, and 16 – 20 years, at a significance level of 0.05. However, there was a significant difference in the mean years of teaching experience for teachers

with more than 20 years of experience compared to all other groups, as indicated by the statistically significant *p*-values ($* < 0.05$). Thus, the Games-Howell post-hoc test suggests that while there are no significant differences in mean years of teaching experience between most groups, teachers with more than 20 years of experience have significantly different mean years of teaching experience compared to all other groups.

Table 8

Post Hoc (Games-Howell) tests based on years of teaching

Dependent Variable	Demographic Information		<i>MD</i>	<i>Std. Error</i>	<i>Sig.</i>
STUA	1 – 5 years	6 – 10 years	-0.0346	0.07316	.990
		11 – 15 years	-0.0333	0.07507	.992

Table 8 (Continue)

Dependent Variable	Demographic Information	MD	Std. Error	Sig.
	16 – 20 years	-0.0575	0.09958	.978
	More than 20 years	-.4873*	0.09752	<.001
6 – 10 years	1 – 5 years	0.0346	0.07316	.990
	11 – 15 years	0.0013	0.07001	1.00
	16 – 20 years	-0.0229	0.09583	.999
	More than 20 years	-.4527*	0.09368	<.001
11 – 15 years	1 – 5 years	0.0333	0.07507	.992
	6 – 10 years	-0.0013	0.07001	1.00
	16 – 20 years	-0.0242	0.0973	.999
	More than 20 years	-.4540*	0.09518	<.001
16 – 20 years	1 – 5 years	0.0575	0.09958	.978
	6 – 10 years	0.0229	0.09583	.999
	11 – 15 years	0.0242	0.0973	.999
	More than 20 years	-.4298*	0.1155	0.005
More than 20 years	1 – 5 years	.4873*	0.09752	<.001
	6 – 10 years	.4527*	0.09368	<.001
	11 – 15 years	.4540*	0.09518	<.001
	16 – 20 years	.4298*	0.1155	.005

DISCUSSION

The study aimed to investigate how physical education (PHE) teachers at secondary schools perceive the purpose and goals of assessment and to explore any possible gender and experience-related differences in their views. The study utilised descriptive statistics to examine the participants’ conceptions of assessment purposes: improvement, school and student accountability, and irrelevance. The results indicated that improvement was the most commonly endorsed purpose,

with participants believing that assessment should enhance teaching and learning processes and outcomes ($M = 3.95$). This finding is consistent with prior research, which has also shown that improvement is the most favoured purpose among teachers (Mat Yusoff, Leng, et al., 2022). Moreover, previous studies have shown that when students view assessment as a way to account for their learning, their performance is more likely to improve (Yang et al., 2022).

The finding that improvement was the most commonly endorsed purpose

of assessment among PHE teachers is particularly noteworthy given the unique nature of the subject. Physical and health education encompasses a wide range of knowledge and skills, from physical fitness to nutrition and health promotion. Thus, practical assessment in PHE requires a nuanced understanding of cognitive, psychomotor, and affective domains (Davis & Wash, 2019). In this context, the endorsement of improvement as the primary purpose of assessment suggests that PHE teachers are focused on enhancing students' learning outcomes across all domains. This finding aligns with the goals of PHE, which aim to develop students' physical literacy, improve their health-related knowledge and behaviours, and promote positive attitudes towards physical activity and wellness (Gleddie & Morgan, 2021).

The study also investigated the conception of school accountability among the participants and found that it ranked second in importance ($M = 3.92$). This result contrasts previous research findings (Mahasneh & Al-Zou'bi, 2021; Mat Yusoff et al., 2022). Gelfand et al. (2017) have introduced the concept of 'felt accountability' to explain how individuals respond to the tightness-looseness of social and cultural norms, especially the trade-offs involved in acting in relation to their expectations that their decisions and behaviours will be scrutinised and evaluated. It is argued that having assessments for school accountability can positively empower teachers in the teaching and learning process (Law et al., 2019). In the context of physical

and health education, the conception of school accountability may have different implications. While school accountability can empower teachers, it may also lead to unintended consequences, such as teaching to the test or narrowing the curriculum to focus solely on tested content (Knoester & Parkison, 2017). It could limit the scope of the subject and reduce the emphasis on promoting lifelong physical activity and health. Moreover, given that physical and health education is often not tested in the Malaysian context, the use of assessments for school accountability may be limited, which could further marginalise the subject (Richards et al., 2018). Therefore, while school accountability may have some benefits, it is essential to carefully consider its implications for the teaching and learning of physical and health education.

Other than that, the study also found that participants had a moderate level of agreement with the Student Accountability concept, with a mean value of 3.91. It was close to the mean values of the Improvement and School Accountability conceptions. However, the Irrelevance conception had the lowest mean value of all the conceptions, with moderate agreement among the participants ($M = 3.85$). The moderate agreement with Student Accountability suggests that teachers recognise the importance of holding students accountable for their learning in this subject area (Winstone et al., 2021). Physical and health education is a subject that requires active participation from students, and holding them accountable for their learning

can motivate them to engage in physical activities and adopt healthy behaviours. It is particularly important given the increasing prevalence of sedentary lifestyles and related health issues such as obesity and diabetes (Hadi, 2021).

By emphasising the importance of physical activity and healthy behaviours through assessment, students may be more motivated to engage in these activities within and outside the classroom. Furthermore, student accountability in physical and health education can help to develop essential life skills such as self-discipline, responsibility, and goal setting. Students held accountable for their learning may also develop a sense of ownership over their health and well-being, leading to lifelong healthy living habits (Sierra-Díaz, 2019). Therefore, physical and health education teachers need to consider how assessment can promote student accountability and foster healthy habits and behaviours.

On the other hand, the moderate level of agreement with the Irrelevance conception may indicate that physical and health education teachers do not view assessment as irrelevant to their teaching and learning process. This finding is consistent with physical and health education, which often involves practical and experiential learning (Bentsen et al., 2022). As such, assessment in this subject area may take different forms, such as performance-based assessment, deemed more relevant and meaningful by teachers and students. The high response rate for Improvement and the low response rate for Irrelevance suggest

that participants believe that assessment helps improve the teaching and learning process. However, they do not see it as an accurate measure of their qualifications. This finding aligns with previous research, such as that by Broadfoot (2007), who argued that assessment should be viewed as a tool for improving learning outcomes rather than just as a measure of student achievement. Therefore, the study suggests that teachers see assessment as a valuable tool for improving the teaching and learning process. However, they may need more clarification about its accuracy in measuring student qualifications. These findings have important implications for designing and implementing assessment practices in secondary school physical education. The study results also indicate no significant difference in assessment conceptions between male and female secondary school PHE teachers, encouraging the promotion of equity and gender equality in education. Physical and health education, as a subject that promotes physical activity and healthy lifestyles, should not be limited to any particular gender (Cárcamo et al., 2021). This study's findings indicate that both male and female teachers perceive assessment as a crucial tool to improve teaching and student learning in PHE, regardless of gender. It suggests that promoting equitable access to PHE education and encouraging gender equality in the classroom is vital for the overall development of students. Moreover, the finding that both male and female teachers value assessment as a critical element in improving teaching and learning

outcomes is consistent with previous studies in the field of education (Mat Yusoff, Leng, et al., 2022). Carpenter et al. (2020) noted that assessment is an essential component of the teaching and learning process, and its effectiveness can significantly impact students' learning outcomes. Therefore, developing effective assessment strategies in PHE that can promote both male and female students' engagement, motivation, and learning outcomes is crucial. These findings highlight the importance of assessing PHE students' learning and developing effective assessment strategies. The lack of significant differences in assessment conceptions between male and female teachers suggests that gender should not be a determining factor in the assessment process, and equitable access to PHE education should be promoted.

The current study also explored whether there were differences in the conceptions of assessment among secondary school PHE teachers based on their years of teaching experience. The researchers conducted a multivariate test and found a statistically significant difference in the conceptions of assessment among teachers with varying years of experience. The Games-Howell post-hoc test was performed to compare the mean years of teaching experience of different groups of teachers. The results showed a significant difference in the mean years of teaching experience for teachers with more than 20 years of experience compared to all other groups, indicating that teaching experience impacts teachers' conceptions of assessment. This finding

is consistent with research by Moinvaziiri (2015), who also found a significant relationship between teaching experience and school accountability. However, the result of the current study contradicts the findings from Mat Yusoff, Leng, et al. (2022) and Mahasneh and Al-Zou'bi (2021), who found no significant difference in teaching experience and the conceptions of assessment variables.

Experienced teachers may have a deeper understanding of the subject matter and the needs of their students, which can influence how they perceive the role of assessment in teaching and learning. For example, teachers with more years of experience may have developed a greater appreciation for continuous improvement and feedback, which could influence their endorsement of the Improvement conception of assessment (Wang, 2016). Besides, experienced teachers may have more confidence in their abilities to design and implement practical assessments, which could affect their views on the School Accountability and Student Accountability conceptions (Deneen & Brown, 2016). Furthermore, experienced physical and health education teachers may have developed a greater awareness of the unique challenges and opportunities in the subject area. This awareness may lead them to value assessment more highly to promote physical activity, health literacy, and overall wellness among their students (Sentell et al., 2020). Therefore, the significant difference in the mean years of teaching experience among teachers with more than 20 years of experience, as found in the current study,

may reflect the growing importance of physical and health education assessment to promote healthy lifestyles and behaviours.

CONCLUSION

The current study presents a new perspective on how secondary school PHE teachers perceive assessment and what factors shape these viewpoints. The most prevalent conception of assessment was the belief that it improved teaching and learning outcomes, followed by school and student accountability notions. The irrelevance of the assessment received the most minor support from the teachers. There was no discernible difference in these conceptions between male and female teachers. Nevertheless, a notable disparity was found between teachers with over 20 years of experience and their less experienced peers, indicating that teaching experience significantly impacts teachers' understanding of assessments. The insights obtained from this study make a valuable contribution to the existing body of knowledge on teachers' conceptions of assessment. They may prove beneficial in shaping educational policies and practices. It also underscores the necessity for additional research to probe other potential influencers of teachers' conceptions of assessments.

Limitations and Recommendations for Future Research

Even though this study has yielded valuable insights, it is essential to recognise the limitations that may affect the validity and generalizability of the findings. A primary concern relates to the data collection

method, which relied on disseminating questionnaires within a limited time frame. This time constraint may have hindered participants' comprehensive comprehension of the questionnaire items, resulting in responses that may have been needed to adequately capture the nuances of their beliefs and experiences regarding assessments. Consequently, there may be an element of response bias, which could affect the overall reliability and validity of the collected data. In addition, while the quantitative design of the study provided valuable statistical insights, it may have limited the depth of understanding regarding the underlying causes and motivations that shape teachers' perceptions of assessments.

In addition, it is essential to note that the sample size for this study was relatively small and limited to secondary school PHE teachers from only two districts. Although this sample provides unquestionably valuable insights into the perspectives of these particular educators, it may be somewhat representative of the population of PHE educators as a whole. A mixed-method research design should be considered to address these limitations and improve the comprehensiveness and applicability of future research in this area. Combining quantitative data collection with qualitative methods such as interviews or focus groups would enable a more comprehensive examination of teachers' conceptions of assessments using this method. This mixed-method design would allow researchers to collect quantitative data and probe deeply into the qualitative insights

that can reveal the underlying rationales and contextual nuances underlying teachers' assessment beliefs.

In addition, future research endeavours should include a larger and more diverse sample size, including participants from various states and districts and teachers instructing various PHE-related subjects. By expanding the scope and reach of the study, researchers can gain a more comprehensive understanding of teachers' perceptions of assessments, considering regional and subject-specific differences that may influence these perceptions. Future research can provide a stronger foundation for educational policymakers and practitioners to make informed decisions and implement effective strategies for enhancing assessment practises in Physical and Health Education.

Implication of the Study

The findings of this study demonstrate the critical importance of incorporating teachers' perspectives and conceptions of assessments into educational practices and policymaking. This analysis urges educational institutions at both the macro and micro levels to re-evaluate and reimagine the role of assessment as a fundamental tool for improving teaching and learning outcomes. The study's findings highlight the necessity of adapting assessment strategies and training programmes to teachers' varying experience levels. Recognising that novice and experienced educators may have different conceptions and requirements regarding assessments, it is necessary to provide differentiated support and professional development opportunities to

ensure the teachers' learning trajectories in the community of practice of the assessment reform. This approach can result in a more efficient implementation of assessment practices in the classroom. In addition, as this study points out the complexity of teachers' assessment-related conceptions, the necessity of the qualitative method integrated into this study helps explore the underlying causes, motivations, and beliefs that influence teachers' perspectives on assessments. These insights can contribute to a deeper comprehension of the factors that influence assessment conceptions and inform the development of targeted interventions. Last but not least, this study can bear profound implications for bridging the gap between policy planning and policy implementation in the context of Malaysian education reform. Recognising and addressing teachers' conceptions of assessments is crucial to effectively implementing educational policies. Education reform initiatives can become more effective and sustainable by incorporating teachers' insights and aligning policies with their perspectives.

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Using Machine Learning to Score Multidimensional Assessments of Students' Skill Levels in Mathematics

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ABSTRACT

This research aims to establish a mathematical skill measurement model to examine seventh-grade students' mathematical skills in two aspects: their understanding of mathematical processes and the concept and structure. The researchers surveyed the mathematical skills of 521 seventh-grade students from the northeastern province of Thailand. Their test results were used to prototype a mathematical skill measurement model using machine learning. It involved a design-based approach that included four stages: a construct map, item design, a Wright Map, and outcome space, the so-called Multidimensional Random Coefficient Multinomial Logit Model, to verify its quality. The initial findings revealed the creation of a construct map consisting of five levels. The researchers determined the cut-off point in the form of the threshold level after considering the Wright Map criteria area for each aspect. Lastly, the measurement model was examined to provide adequate evidence of the internal structure's validity and reliability. In conclusion, students' skill levels can be measured accurately using multidimensional assessments, even though the levels of mathematical capabilities of the students varied from low to moderate to high. Therefore, it provides significant evidence of the mathematical skill measurement model to diagnose seventh-grade students' learning. The significant implications contributed to educational measurement and evaluation are that machine learning algorithms can provide

more accurate and consistent scoring of assessments compared to human graders. With accurate assessment using machine learning, teachers can gain deeper insights into individual students' mathematical skills across multiple dimensions.

Keywords: Construct modeling approach, machine learning, mathematical skill measurement model, Rasch model analysis, seventh-grade students

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INTRODUCTION

The results of the 2018 Program for International Student Assessment (PISA) examinations showed that Thai students consistently perform below the international average in core subjects (Organization for Economic Cooperation and Development [OECD], 2019). A total of 47% of Thai students achieved a Degree 2 or greater in mathematics compared with an OECD average of 76%. It means that Thai students are capable of understanding and knowing in what way an easy condition can be embodied mathematically without direct instructions (OECD, 2019). Moreover, only 2% of students in Thailand achieved Degree 5 or greater in mathematics against an OECD average of 11%. If we compared the six Asian countries and economies in the form of Korea (21%), Chinese Taipei (23%), Macao, China (28%), Hong Kong, China (29%), Singapore (37%), and Beijing, Shanghai, Jiangsu, and Zhejiang, China (44%), this result shows that comparatively few Thai students are able to choose, compare, and assess problem-solving approaches for handling complex situations mathematically (OECD, 2019). The reasons behind the low PISA scores of Thai students are complex and multifaceted, involving various social, economic, and educational factors. However, machine learning can assist in identifying correlations between various factors and educational outcomes, even though machine learning techniques do not directly explain the low performance in terms of PISA scores.

Zhai et al. (2020) emphasized the importance of machine learning, which increases the possibility of transforming assessment and achieving educational aims, particularly in the promising field of artificial intelligence, which indicates a substantial technological advancement. Furthermore, Howell and Walkington (2020) suggested the use of three-dimensional learning to assist students' understanding and skills development to achieve the requirements of a contemporary STEM (science, technology, engineering, mathematics) workforce. The concept of three-dimensional learning relates to when students apply corrective fundamental thoughts in a cycle with mathematical practices and crosscut the concepts to solve mathematical problems (Harris et al., 2019; Wilson et al., 2024). However, there are comparatively limited studies employing machine learning to measure items involving students executing assignments that relate to applying various components of mathematical knowledge and skills to make sense of specific occurrences (Zhai et al., 2020). As the field of machine learning continues to evolve, it is important for us to stay updated on the latest research to gain insights and make informed decisions when implementing machine learning in mathematics curricula specifically and STEM curricula generally.

The STEM curriculum blends those four subjects to teach 21st-century skills or meet students' needs if they wish to possess the skills needed to compete in the future workplace (Craig, 2021). Therefore, Leyva et al. (2022) emphasized the importance

of mathematics skills, which are not only primarily significant for ordinary career roles but also are a sure sign of wider intellectual skills, particularly numeracy and numerical problem-solving. Since intellectual skill is one of the key features of career accomplishment, assessing our students' mathematical skills is an excellent way to determine their capacity to flourish on the job (Leyva et al., 2022). In other words, mathematical skills such as problem-solving abilities, quantitative reasoning, and analyzing and modeling real-world situations are particularly crucial in STEM careers.

Based on the above problems, the researchers found a need for more research into the mathematical skill measurement model pertaining to its diagnostic assessment and development. The mathematical skill measurement model is a potential tool for developing mathematical capabilities instead of just a tool to report students' mathematical skills at a certain level (Alfayez, 2022). In this sense, this research is of relevance, given that it utilizes the concept of machine learning (Maestrales et al., 2021; Zhai et al., 2020) to score multidimensional assessments of students' skill levels in mathematics that will not only holistically assess students' mathematical learning, but will also inform mathematics teachers' practices to support them in further diagnosing and developing their students' mathematical skills. As such, in this study, the researchers posed the following research aims: (i) to analyze seventh-grade students' test results for a holistic understanding of

their mathematical skills in two aspects, namely mathematical processes as well as the concepts and structure of mathematics, and (ii) to design an automated interactive feedback system using machine learning for students operating at three different mathematical skill levels as a measurement model, and ultimately use it to lead to the development of students' mathematical capabilities.

Literature Review

Past researchers have explored machine learning and utilized it in scoring students' mathematical skills. Maestrales et al. (2021) developed measurement items that exceed routine memorization assignments with regard to scientific tasks that need rich knowledge and the application of thinking to enhance students' science learning. These measurement items are generally performance-based constructed answers and require machinery association to alleviate teachers' responsibility for scoring. The researchers examined the precision of a machine learning content assessment procedure as an option to the human marking of composed answers. A total of 6,700 students were selected as test-takers of the over 26,000 responses in chemistry and physics. The researchers instructed human raters and undertook a vigorous coaching session to build machine algorithmic models and cross-validate the machine results. Their results indicated that human raters generated great (Cohen's $k = .40-.75$) to outstanding (Cohen's $k > .75$) interrater consistency on the measurement

elements with a diverse number of aspects. A parallel result revealed that the machine scoring algorithms accomplished equivalent marking precision to the human raters on the identical elements. Furthermore, their results showed that replies involving conventional terminology, for example, 'velocity,' were likely to generate fewer machine-human settlements, which can be related to the fact that not many students made use of conventional words matched with the casual options.

Phaniew et al. (2021) successfully developed a mathematical skill measurement model to establish the specifications for determining the skill levels in Measurement and Geometry. They used a design-based research approach to collect data from 517 Secondary Year 1 students involved as test-takers. They then used the Multidimensional Random Coefficient Multinomial Logit Model (MRCMLM) to analyze the specifications set of the mathematical skill measurement model. Their results revealed that the standard-setting of the mathematical skill measurement model can deliver significant evidence for individual students who have higher than the lowest degree of mathematical skill.

Chinjunthuk et al. (2022) designed and inspected a digital learning platform's quality in detecting seventh-grade students' mathematical skill stages associated with the subjects of Measurement and Geometry. They used an MRCMLM to inspect the quality of the measurement model. Their results indicated that there are three characteristics of proof to maintain the

quality of the mathematical capabilities measurement model they created. Their empirical results revealed that the digital learning platform was extremely fitting in its usefulness, suitability, and accuracy apart from feasibility, which was determined to be only fairly suitable.

Junpeng et al. (2020) employed a multidimensional approach to creating a diagnostic framework consisting of 11 and 7 tasks, respectively, for mathematical skills in understanding mathematical processes (SMP) and mathematical skills in understanding the concept and structure of mathematics (CSM). They selected 1,504 Thai seventh-grade students to take the test on Numbers and Algebra. Their results showed internal structural evidence of validity based on the comparison of model fit and the Wright Map. Moreover, their results showed that reliability evidence and item fit are compliant with the quality of the digital instrument as indicated in the analysis of standard error of measurement and the infit-and outfit of the items. Therefore, they have created a digital instrument capable of delivering effective data, especially to students with average and superior mathematical skills.

Machine learning diagnostic assessment is essential for mathematics teachers, in particular, because it permits them to assess their students' understanding of a subject topic or to decide on the basis of their mathematics skills (Chinjunthuk et al., 2022). Moreover, mathematics teachers can also use the diagnostic results of mathematical skills to offer corrective

teaching or to allocate students to lessons suited to their capability. According to Corrêa and Haslam (2021), mathematics classes have to allow for a broader focus involving conceptual discussion and exploration. Therefore, it is indisputable that mathematics involves thinking, reasoning, evaluating, and inferring. That is, the processes involved in doing mathematics are not straightforward and are not exempt from errors or misleading paths. As emphasized by Corrêa and Haslam, the essence of mathematics involves students' mathematical skills in understanding the mathematical processes, concepts, and structures, which are far from memorizing procedures and formulas. These studies highlight the potential of machine learning when it comes to automating the scoring process for assessing students' mathematical skills. By analyzing various features and patterns within students' responses, machine learning algorithms can provide efficient and objective scoring, freeing up valuable time for teachers.

The above literature review indicated that existing mathematical skill measurement methods face several issues and challenges that can impact their accuracy and effectiveness. These issues include limited assessment scope, one-size-fits-all approach, cultural and language bias, lack of real-world context, ignoring process over outcomes, and technology-driven changes. Maestres et al. (2021) commented that many traditional assessments focus on a narrow range of mathematical skills, often emphasizing rote memorization and

computation over problem-solving, critical thinking, and real-world applications. This limited scope may not adequately capture a student's overall mathematical proficiency. Moreover, standardized tests use a uniform set of questions for all students, regardless of their individual learning needs and abilities (Phaniew et al., 2021). According to Chinjunthuk et al. (2022), some assessments focus on abstract mathematical concepts divorced from real-world applications. It can make it difficult to assess a student's ability to apply mathematical skills in practical applications. Corrêa and Haslam (2021) stated that traditional assessments often prioritize getting the correct answer over understanding the problem-solving process. It can fail to recognize the importance of developing problem-solving strategies and critical thinking skills. As technology advances, this study uses machine learning to score multidimensional assessments of students' skill levels in mathematics, which need to evolve because traditional paper-and-pencil tests may not effectively assess digital literacy and the ability to work with mathematical tools.

MATERIALS AND METHODS

The researchers employed construct modeling to introduce a real-time digital learning platform involving machine learning, which was embedded in the subject of Numbers and Algebra. It is done by designing diagnostic tasks to measure the level of mathematical skills of seventh-grade students (Wilson, 2005). In addition, a design-based research approach

was embraced by Vongvanich (2020). It involved four phases using machine learning to score multidimensional assessments of students' skill levels in mathematics. Finally, the MRCMLM was applied to confirm the quality of the mathematical skill measurement model (Adams et al., 1997).

Population and Sample

A total of 521 seventh-grade students in the 2017 academic year from schools under the administration of the Office of Secondary Education Service Area in the northeastern province of Thailand were purposively designated to be the test-takers. Seventh-grade students were chosen because they faced various challenges when it came to mathematics. Curriculum, teaching methods, and individual student characteristics could influence these challenges. Some common problems they encountered in mathematics include the complexity of topics, lack of foundation, fear of mistakes, mathematics anxiety, and resource constraints (Inprasitha, 2022). The key purpose of employing the purposive sampling method was to confirm that the selected test-takers were reasonably presumed to be demonstrative of a cross-section of the population in that they vary in the levels of mathematical skills from low to moderate to high, as indicated in their assessments. As emphasized by Wright and Stone (1979), a sample size of more than 500 test-takers is required to acquire adequate quality and data for analysis when consuming the multidimensional test response theory. As emphasized by Wright and Stone (1979), a sample size of more

than 500 test-takers is required to ensure adequate quality and acquire sufficient data for analysis when the multidimensional test response theory is used in practice.

Research Procedure

The researchers utilized the four building blocks introduced by Wilson and Sloane (2000) as the segments of the measurement scheme. These four building blocks were: (i) a progressive standpoint with regard to students' understanding-construct map, (ii) the connotation between teaching and measurement-item design, (iii) teacher managing classroom teaching and measurement-Wright Map, and (iv) the construction of high-quality indicators-outcome space.

The first step in creating a construct map was defining a measurement construction by the researchers. A construct is an abstract concept or characteristic the researchers intend to assess, such as mathematical skills. To clearly articulate the two aspects of the construct, the researchers undertook a survey to explore the mathematical skills of seventh-grade students based on their test results to create a diagnostic digital tool as a prototype of a mathematical skill measurement tool in the first phase. It was followed by the second step of identifying the key concepts and sub-constructs. The researchers broke down the construct into its constituent parts. Since the construct in this study is "mathematical skills," sub-constructs might include algebraic skills, geometry skills, and problem-solving abilities. In the third step, a hierarchical

structure of the construct and its sub-constructs is established to determine the relationship of the sub-constructs. Some sub-constructs might be more fundamental and serve as building blocks for higher-level constructs. The researchers created this visual representation to illustrate the hierarchical relationships. In the final step, the researchers define the relationships between the construct, its sub-constructs, and related constructs. This step identifies the contribution of the sub-constructs to the overall construct and their interaction. These relationships helped design a real-time automatic digital platform to accurately report their machine learning and interpret results.

In the second phase, the researchers piloted an advanced prototype to generate a construct map for each mathematical skill to fit the real setting. In the third phase, a sequence of interactive testing sets and fine-tuning of resolutions in practice was executed. The researchers used MRCMLM, a form of the Rasch Model (Rasch, 1960), to generate quality evidence of the value of the real-time digital learning platform for diagnosing levels of mathematical skill on the part of seventh-grade students.

In the final phase, researchers reported validity and reliability indications to improve the advanced prototype of the diagnostic digital tool for seventh-grade students' mathematical skills. The researchers chose an appropriate assessment method to measure the construct for item design. These diagnostic digital tools took the form of a multiple-choice test with four options as

part of an online testing system to assess the Number and Algebra content elements, which consisted of 13 items in the form of so-called "e-Mat-Testing." The e-Mat-Testing was chosen considering the nature of the construct and the educational context. All test tasks were created in line with the Revised Edition of the Core Curriculum of Basic Education (Thailand Ministry of Education, 2017).

In addition, the researchers developed specific items found in the construct map and aligned with the construct and sub-constructs. The researchers also ensured the clarity, no ambiguity, and biases of each item. Item content reflected the intended learning outcomes and cognitive complexity associated with the construct. The mathematical skills diagnostic digital tool focuses on mathematical skills in understanding mathematical processes (SMP) and mathematical skills in understanding concepts and the structure of mathematics (CSM). The e-Mat Testing consists of 13 SMP and CSM aspects, with nine and six items, respectively. However, items 8 and 9 included mathematical skills for the SMP and CSM aspects. The internal structure of the e-Mat Testing approach was then designed and assessed by undertaking model fit and interdimensional correlation analysis.

The researchers analyzed the item fit of the mathematical skill measurement model. The researchers utilized the Wright Map to calibrate its difficulty and discrimination parameters. Calibration involved determining the complexity of each

item and students positioned accordingly based on their estimated abilities and item difficulties. The Wright Map also helped researchers to understand the contribution of different items to the measurement of the construct. The researchers examined the Wright Map to identify anomalies, such as ill-fitted items and unresponsive students. This evaluation was crucial to ensure the validity and reliability of the measurement scale. These four building blocks, which consist of construct mapping, item design, Wright Map, and outcome space analysis, ensured that the assessments were valid, reliable, and aligned with the educational objectives. These steps helped teachers to assess and measure complex constructs accurately, make data-driven decisions, and enhance the overall quality of education.

It was followed by an assessment of the level of student mathematical skill by means of the Wright Map and the Multidimensional Test Response Theory (MTRT). The Wright Map was used to validate evidence of the quality of the progress map in each aspect with regard to the subject of Numbers and Algebra. On the other hand, the MTRT is a framework that extends traditional Item Response Theory (IRT) to account for the multidimensional nature of assessments. This MTRT is suitable when assessments simultaneously measure multiple underlying traits or dimensions. The MTRT was used to develop items through the following steps: (i) identify the multidimensional construct, (ii) define the latent traits, (iii) design item for each latent trait, (iv) calibrate items separately, (v) establish the

Multidimensional Model, (vi) assess cross-loading, (vii) assembly test, (viii) administer assessment and collect data, (ix) analysis and estimate data, (x) validate model, and (xi) interpret results. Therefore, the MTRT was used to guide the development of items by considering the distinct latent traits or aspects of a multidimensional construct. Items were designed to measure these aspects separately, calibrated individually, and integrated into a multidimensional model to comprehensively assess the construct. The MTRT enables researchers to accurately assess complex and multidimensional constructs to make data-driven decisions in educational contexts.

Ultimately, it helps the researchers better understand how seventh-grade students' latent traits in multiple dimensions affect their responses to test items, allowing for more accurate and informative assessment in a wide range of fields (Embretson, 2015). As a result, the MRCMLM was used to correlate the modeling of items in multidimensional skills, assess the student's skill parameters, and place the intersection points for diagnosing the level of the student's mathematical skills in each aspect. The ACER ConQuest Version 2.0 program (Wu et al., 2007) was applied to estimate the mathematical skill measurement model parameters. Figure 1 illuminates the whole research procedure.

RESULTS

The Results of the Construct Map for Each Aspect of Mathematical Skills

Phaniew et al. (2021) indicated that the most

<p>First Phase: A test to diagnose the mathematical skill levels (Phaniew et al., 2021): A survey was conducted to explore seventh-grade students' mathematical skills based on their test results.</p>	<p>Second Phase: Construct Modelling (Wilson, 2005): An advanced prototype was piloted to generate a construct map for each skill to fit the real setting.</p>	<p>Third Phase: Multidimensional test response model (MRCML) (Wilson et al., 2006): MRCML was used to generate quality evidence of the value of the real-time digital leaning platform.</p>	<p>Final Phase: Machine Learning (Lee et al., 2017; Maestrales et al., 2021; Zhai et al., 2020): Pieces of validity and reliability indications were reported to improve the advanced prototype.</p>
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Figure 1. Research procedure

effective tool that can be used when it comes to evaluating the quantity and quality of junior high school students' mathematical skills is a test.

Moreover, the researchers adapted the mathematical skills measurement model in line with recommendations by previous researchers that encompass the SMP aspect (Junpeng et al., 2018) and CSM aspect (Briggs & Collis, 1982). The selection of SMP and CSM aspects as focus points in mathematical education was based on recognizing that these two aspects were important for developing well-rounded, proficient, and mathematically literate individuals. By prioritizing these areas, teachers aim to foster deeper learning, critical thinking, and problem-solving abilities in students, which are valuable not only within mathematics but also in various aspects of life and future academic pursuits (Inprasitha, 2022).

Phaniew et al. (2021) indicated that the most effective tool that can be used when it comes to evaluating the quantity and quality of junior high school students'

mathematical skills is a test. Moreover, the researchers adapted the mathematical skills measurement model in line with recommendations by previous researchers that encompass the SMP aspect (Junpeng et al., 2018) and the CSM aspect (Briggs & Collis, 1982). Therefore, the researchers created a construct map comprising five skill levels for each aspect of mathematical skills. The results of the first phase demonstrated five levels of the SMP aspect: irrelevance, unrecalled, fundamental, modest, and strategic skills. In contrast, the researchers utilized the SOLO taxonomy as a model to identify, describe, and inform the five levels of the CSM aspect, namely irrelevance, pre-structural skills, uni-structural skills, multi-structural skills, and prolonged structural skills. The results are equivalent to previous research (Chinjunthuk et al., 2022; Junpeng et al., 2020; Phaniew et al., 2021). Figure 2 illustrates the two construct maps relating to mathematical skill levels for seventh-grade students' test results, as established by the researchers.

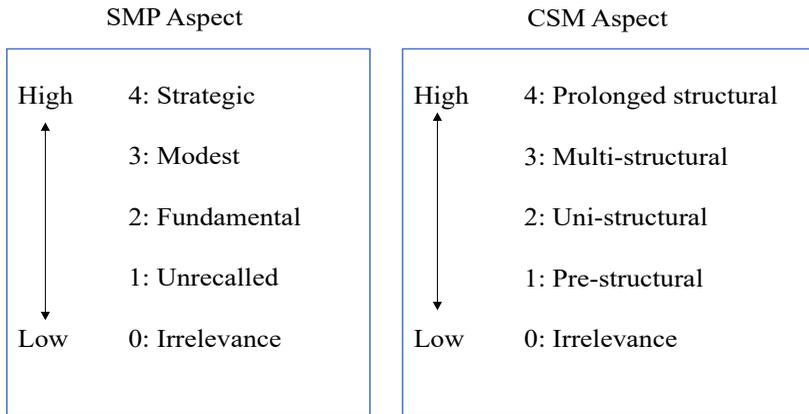


Figure 2. Construct a map of SMP and CSM aspects of 13 items in Number and Algebra

The Results of the Determination of the Intersection in Assessing Mathematical Skills

All the 13-item problems in the mathematical skill measurement model were studied, as illustrated in Table 1. The intersections were determined by the threshold level divided by the number of tests at the same level for the two aspects before considering each aspect’s Wright map criteria area. In this line of reasoning, the results showed that the item difficulties ranged from -0.651 logits to +2.491 logits and -0.178 logits to +4.423

logits in the SMP aspect and CSM aspect, respectively, in the subject of Number and Algebra.

The mean threshold of mathematical skill level for each aspect was used to identify the level of mathematical skill in the subject of Numbers and Algebra to create a standardized mathematical skill measurement model. Hence, the transition point was calculated from the mean of the item thresholds in each aspect level, as shown in Table 1.

Table 1
Results of determination of the intersection in assessing mathematical skills for seventh-grade students

Mathematical Skills	Item	Difficulty	Threshold			
			1	2	3	4
Understanding Mathematical Process (SMP)	1	0.929			0.93	
	2	0.476		0.48		
	3	0.325		0.33		
	4	0.696		0.70		
	5	-0.651	-0.65			

Table 1 (Continue)

Mathematical Skills	Item	Difficulty	Threshold			
			1	2	3	4
	6	1.500				1.50
	7	1.084			1.08	
	8	-0.178	-0.18			
	9	2.491				2.49
	Mean		-0.651	0.499	1.007	1.500
Understanding Concept & Structure of Mathematics (CSM)	8	-0.178	-0.18			
	9	2.491				2.49
	10	4.277	2.36	4.59	5.11	5.20
	11	4.423	3.03	4.81	5.47	-
	12	1.956	0.77	2.26	2.41	2.52
	13	2.366	1.28	2.52	2.86	2.96
	Mean		1.45	3.29	3.55	3.96

The Results of Scoring Criteria and Determination of Seventh-grade Students' Mathematical Skill Levels

Based on the determination of the cut-off point in measuring the students' mathematical skills in the subject of Numbers and Algebra, the results indicated that the transition point can be allocated using four cut-off points of five levels, each in ascending order. The SMP aspect's transition point intersection results from levels 1 to 5 were reported from the lowest to the highest level at -0.65, 0.50, 1.01, and 1.50, respectively. In contrast, the intersections of the CSM aspect were recognized from Level 1 to 2, Level 2 to 3, Level 3 to 4, and Level 4 to 5 as 1.45, 3.29, 3.55, and 3.96, respectively. Figure 3 elucidates the transition point in every aspect of the Wright map with regard to the subject of Numbers and Algebra.

The Results of Multidimensional Test Response on the Part of the Seventh-grade Students

The researchers used the measurement criterion results from the Wright map to propose the specification adjustments for a mathematical skill measurement model in Numbers and Algebra. Consequently, the researchers determined five score ranges, which were transformed from assessment mathematical skill parameters into scale scores and raw scores in that order. Table 2 shows that those students who achieve logits smaller than -0.65 and 1.45 in the SMP and CSM aspects, respectively, are identified as possessing the lowest level of mathematical skill. Similarly, if their logits are greater than 1.50 and 3.96 with regard to the SMP and CSM aspects, respectively, those students are identified as having achieved the highest level of mathematical skill. The results

indicate that none of the test-takers had the lowest mathematical skill level in the SMP or CSM aspects. It implies they all had a higher mathematical skill level than the minimum.

As a result, the researchers set the mathematical skill requirements of the measurement model after corroborating the criterion area discovered from the Wright

map. Following this line of reasoning, the researchers established five score ranges. These were converted into the scale and raw scores from evaluating the mathematical skill parameters. Table 2 shows the results of the 517 seventh-grade students' mathematical skill levels in terms of the SMP and CSM aspects.



Figure 3. Wright map indicates the transition points of SMP and CSM aspects in the subject of Number and Algebra

The Results of Outcome Space of Each Aspect of the Mathematical Skill Measurement Model

In this final phase, the researchers used

the 521 test-takers' test scores to create a scoring guide or outcome space for the five mathematical skill levels, with scores ranging from 0 to 4. The outcome

space was identified using the concepts of Webb's depth of knowledge, as proposed by Webb (1997). Table 3 demonstrates the interpretations of the students' mathematical skill capabilities corresponding to each SMP and CSM level.

Table 2
Results of determination of mathematical proficiency standards in the subject of Number and Algebra

Aspect	Intersection θ	θ range	Scale scores	Raw scores
SMP Level 5	1.50	> 1.50	> 65.00	6 – 7
SMP Level 4	1.01	$1.01 < \theta \leq 1.50$	60.00 – 65.00	5
SMP Level 3	0.50	$0.50 < \theta < 1.01$	55.00 – 60.00	4
SMP Level 2	-0.65	$-0.65 < \theta < 0.50$	43.50 – 55.00	1 – 3
SMP Level 1	-	< -0.65	< 43.50	0
CSM Level 5	3.96	> 3.96	> 89.60	15 – 16
CSM Level 4	3.55	$3.55 < \theta \leq 3.96$	85.50 – 89.60	14 – 15
CSM Level 3	3.29	$3.29 < \theta < 3.55$	82.90 – 85.50	13 – 14
CSM Level 2	1.45	$1.45 < \theta < 3.29$	64.50 – 82.90	10 – 13
CSM Level 1	-	< 1.45	< 64.50	0 – 9

Table 3
The results of outcome space for SMP and CSM aspects

Level	Score	Skills of understanding mathematical process (SMP) aspect	
		Name of skill	Proficiency level description
5	4	Strategic skills	Students can use their strategic method to solve complex problems needing multiple steps leading to the correct answers by demonstrating a wide range of solutions and summarizing mathematical ideas to a higher skill level.
4	3	Modest skills	Students show their understanding of mathematical processes, principles, and theories to solve complex problems with various methods involving more than one step.
3	2	Fundamental skills	Students show their basic understanding of simple mathematical operations and problem-solving steps, but the answers are still incomplete.
2	1	Unrecalled skills	Students cannot remember important and necessary content knowledge or possess partial content knowledge to use as their basic skills to answer open-ended questions.
1	0	Irrelevance	Students do not answer at all.

Table 3 (Continue)

Level	Score	Skills of understanding concept and structure of mathematics (CSM) aspect	
		Name of skill	Skill level description
5	4	Prolonged structural skills	Students can link and refer to their content knowledge and draw conclusions based on their conceptual understanding.
4	3	Multi-structural skills	Students can connect, classify, explain, or describe complex concepts and relate their conceptual understanding of the given problem situation. However, students cannot summarize the body of knowledge and are unable to analyze or integrate the concepts.
3	2	Uni-structural skills	Students can connect simple but not complex concepts. They cannot show their conceptual understanding to solve the given problem even if they have completed their answers.
2	1	Pre-structural skills	Students cannot create and connect the related concepts. Therefore, they show a misunderstanding of the studied concepts and a lack of skills in interpreting the information.
1	0	Irrelevance	Students do not answer at all.

DISCUSSION

We aim to develop a typical measurement model for seventh-grade students in Numbers and Algebra. Our research demonstrated the strength of the mathematical skill measurement model created as a real-time digital learning platform for diagnosing levels of mathematical skills. This automated analysis was intended to ease the transition to multidimensional evaluation. Our results show a need for mathematics teachers to respond rapidly to technology adoption by using machine learning with regard to seventh-grade students so that they can overcome the challenges resulting from the COVID-19 pandemic that we have been dealing with for more than two years.

The ultimate results of using machine learning to score multidimensional assessments of students' skill levels in mathematics is a promising approach that can provide several advantages in education. These results parallel past research (Chinjunthuk et al., 2022; Junpeng et al., 2020; Phaniew et al., 2021). In other words, this approach has been proved by current research as well as previous research (Chinjunthuk et al., 2022; Junpeng et al., 2020; Phaniew et al., 2021), enabling us to offer more accurate, efficient, and unbiased assessment results. Besides, the mathematical skill measurement model can minimize the potential for human bias, which can be present in traditional grading

systems. This result reflects that machine learning algorithms can evaluate students' performance based on predefined criteria objectively and consistently, thus the result is supported by past researchers (Wilson et al., 2024).

On top of that, the measurement model can provide detailed feedback based on individual strengths and weaknesses. This personalized feedback can help students understand their areas of improvement, which is essential for targeting learning as customized feedback (Junpeng et al., 2018). Moreover, automated scoring is another strength of using this mathematical skills measurement model, as teachers can save a significant amount of time. It allows them to focus more on teaching and providing valuable insights to students rather than spending excessive time on grading assignments and assessments, in accordance with the idea of Howell and Walkington (2020).

CONCLUSION

Implications for Practice

The major contribution of this study is using machine learning to score multidimensional assessments of students' skill levels in mathematics. This mathematical skill measurement model is particularly important for multidimensional assessments of different skills. The algorithms can process a large amount of data and identify subtle patterns that human graders might miss. Moreover, machine learning is found in this study that can significantly speed up the assessment process. Generally, grading

multidimensional assessments can be time-consuming, especially when assessing various mathematical skills. Therefore, automation through machine learning can lead to quicker turnaround times, allowing teachers to provide timely feedback to students. For example, in terms of the 13 items established to appraise the subject of Numbers and Algebra with regard to seventh-grade students, they all meet the principles of a relevant item in terms of having a respectable difficulty level. The distinguishing power of the item functions well and has good validity and reliability. Amidst the increasing use of online learning during the unpredictable new normal educational transformation, this study evaluates the efficacy of a real-time digital learning platform for diagnosing levels of mathematical skills that can be used to fully support online and self-regulated learning classrooms. Moreover, machine learning can facilitate scoring two-aspect assessments more promptly than human scoring alone, permitting mathematics teachers to accumulate comprehensive evidence on students' mathematical skill-in-use.

Furthermore, teachers can identify common misconceptions and learning gaps within a class of students by analyzing the assessment results through this machine learning model. It contributes to mathematics teachers in addressing these gaps with targeted interventions. This result is consistent with the previous studies (Chinjunthuk et al., 2022; Junpeng et al., 2020; Phaniew et al., 2021); the benefits of

applying the two aspects of mathematical skills have been successfully proposed in the form of a quality measurement model which not only concentrates on the mathematical learning process but also on the improvement made by each student by what is compulsory. It takes the form of an automatic feedback system, which can be used to support the development. This concern is especially pronounced because machine scoring, when measured using multi-dimensional assessments, was proficient with regard to categorizing student answers accurately. It implies a potential for machine learning to ease the assessment of comprehensive mathematics understanding. In other words, the data collected from assessments can be used to gain insights into the effectiveness of teaching methods, curriculum design, and educational materials. These insights can inform educational strategies and lead to continuous improvement in mathematics education.

Methodological and Practical Limitations

This study revealed that machine learning algorithms can generate detailed feedback for students, highlighting their strengths and areas that need improvement across various dimensions of mathematics. Although the research results showed that the real-time automatic digital platform using machine learning to score multidimensional assessments of students' skill levels in mathematics offers various advantages, it encompasses methodologies and practical

limitations. Methodological limitations include data quality and quantity, curriculum misalignment, extensive and latent traits, and coherence. On the other hand, practical limitations encompass scalability, data privacy and security, real-world skills generalization, and teacher-student acceptance. Methodological limitation models require large and high-quality datasets for training. The researchers were challenged to gather extensive data for multidimensional assessments in mathematics that may alter the data quality. In this line of reasoning, inadequate or biased data can lead to inaccurate model predictions.

Another methodological limitation is the curriculum misalignment. If the assessment does not align with the curriculum, the model's predictions may not accurately reflect students' learning or skills. Moreover, multidimensional assessments involve multiple latent traits or aspects. As a result, designing methodological limitation models that effectively capture and differentiate these dimensions can be complex. It can cause the researcher to face challenges in handling the interplay between different skills and assessments in isolation. On top of that, many methodological limitation models, especially deep learning models, make it difficult to interpret their scoring decisions. This lack of interpretability can be a significant limitation when understanding a student's score.

Practical limitations such as implementing mathematical skills-based scoring for large-scale educational

assessments can be challenging. It may require substantial infrastructure and computational resources to process and score assessments efficiently for a large number of students. Besides, handling sensitive student data for scoring purposes raises privacy and security concerns. Ensuring data protection and complying with regulations can be challenging. In addition, applying mathematical concepts or assessing mathematical skills in a controlled assessment environment may not always generalize real-world problem-solving. However, it is an essential skill in mathematics. Finally, teachers and students may be skeptical of mathematical skills-based scoring systems, especially if they do not understand the scoring decisions. Lack of trust in the scoring process can also be a significant barrier to adoption.

Recommendations for Future Study

This feedback can empower students to take ownership of their learning and focus on specific growth areas. Nevertheless, it is important to consider potential biases in the training data used for the machine learning model. If the training data is biased, the algorithm's predictions and scores could also be biased. The researchers suggested that teachers ensure fairness. Bias is crucial to avoid perpetuating educational inequalities. Machine scoring could ease the practice of introducing more vigorous measures when it comes to students' understanding through mathematical skill-in-use assessment. In conclusion, this study utilized machine learning to

score multidimensional assessments in mathematics, which promises to enhance accuracy, efficiency, personalization, and insights in education.

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Occurrence of Ellipsis and Shift in French-English Translation: A Study of *Madame Bovary*

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ABSTRACT

Ellipsis is a cohesive device that omits an element or elements in a sentence whose interpretation depends on presupposition in the context; it is about linguistic changes that occur in translation. This study aims to describe ellipsis, shift and their effect on meaning in French-English translation. The study is a qualitative research study carried out manually on *Madame Bovary*. The novel is wholly read, and passages of the novel which demonstrate cohesive devices of ellipsis and shift are selected and analysed. This study is supported by Halliday and Hasan's theory (1976) of textual cohesion and Catford's theory (1965) of translation shifts. The analysis reveals that English is more elliptical, whereas French is more demonstrative due to some language peculiarities and language norms. It specifies that some language peculiarities (concreteness and abstractness) and language norms (language usage options) are determinants of the translation procedures of ellipsis from French into English. Class shift and modulation are the translation procedures that are more functional than other shift categories and translation procedures in dealing with ellipses in French-English translation.

Keywords: Cohesion, ellipsis, French-English translation, shifts, translation procedures

INTRODUCTION

Linguists have considered translation among the most important branches of linguistics since World War II (Wilss, 1982). Even though translation is characterised by its specific problems whose solutions are almost linguistically orientated, its *raison d'être* is to create a coherent and cohesive target text from a source text; it has become an art that deals with all kinds of human communications, be they literary, religious, or technical. Translation has played a big

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role in developing nations, understanding different cultures' literary systems, and spreading knowledge.

Historically speaking, translation started in Egypt in 3000 BC (Newmark, 1981). Since then, linguists' and translators' debates on translation problems deal with quality. Linguists have suggested many theories for better communication. Cohesion is among those theories; it is one aspect of text linguistics that has been foregrounded as a language inquiry and analysis method (Beaugrande & Dressler, 1981; Dijk, 1979). Halliday and Hasan (1976) point out that there are two categories of cohesion: (a) cohesive devices that function within the sentences and (b) cohesive devices that function between sentences. Ellipsis is among those cohesive devices; it presupposes a precedent item. To put it more clearly, "an elliptical item is one which, as it were, leaves specific structural slots to be filled from elsewhere" (p. 143).

Descriptive translation studies describe translation phenomena related to language peculiarities, language norms, and translation choices, which may materialise in the translation process and activity (Lambert & van Gorp, 2014; Toury, 2014). Lambert and van Gorp (2014) point out that translations "can be studied from different points of view, either in a macro-structural or in a microstructural way, focussing on linguistic patterns of various types, literary codes, moral, religious or other non-literary patterns" (p. 46). Moreover, Munday (2016) argues that translation studies new approaches are utilised to

"put together systematic taxonomies of translation phenomena" (p. 50).

This study is done due to some linguistic problems of ellipses and shifts in French-English translation. Despite the contiguity of the French and English languages, they are characterised by differences in norms and peculiarities. Consequently, the study is motivated by an awareness of some problems concerning ellipsis in translation. There is a difference between ellipses determined by the grammar of a language and ellipses determined by certain mental attitudes in that "French works by representation whereas English works by ellipsis" (Vinay & Darbelnet, 1995, p. 161). These concepts indicate the range of problems of ellipsis in translation in general and French-English translation in particular.

This paper describes ellipses and shifts in literary text translation from French to English. The research tries to answer the following questions. How does ellipsis occur in translation? What category of shift can occur in ellipsis translation? What effect can ellipsis and shift have on meaning? The objectives of the study are (i) to describe the translation phenomena of ellipsis and shift, (ii) to find out the determinant of a shift in the target text, and (iii) to assess their effect on meaning.

The significance of this paper is justified by a gap of knowledge detected in the literature review; the gap is that no research has been carried out on ellipsis and shift and their determinants in French-English translation. Hence, this study intends to fill that gap with some knowledge

about the translatability of ellipsis and shift. It is also significant in that language learners, translation students, translators, and interpreters would benefit from the findings of this paper.

LITERATURE REVIEW

There is a difference between cohesion and coherence. “Cohesion is the network of surface relations which link words and expressions in a text, and coherence is the network of conceptual relations which underlie the surface text” (Baker, 2018, p. 235). For a text to be coherent, it must be coherent macrostructurally and microstructurally (Charolles, 1978). Moreover, Newmark (1988) states that translators must pay attention to cohesive aspects related to “the structure and the moods of the text” (p. 23) to cohere theme and rheme, positive and negative, emotive and natural, appropriateness of logical connectors.

Ellipsis

Halliday and Hasan’s (1976) cohesion framework is composed of reference, substitution, ellipsis, conjunction, and lexical cohesion; they are textual non-structural aspects. One of these devices is ellipsis, which is subcategorised into (i) Nominal ellipsis, (ii) Verbal ellipsis, and (iii) Clausal ellipsis.

Nominal Ellipsis. It is an ellipsis on the nominal group item or items, composed of a head and modifiers that can materialise

before or after the head. Every item which comes with the head is considered a modifier. The head can be either a common noun, proper noun or pronoun, which expresses the thing. Proper nouns and personal pronouns are not aspects that can be elliptical. Only common nouns can deal with ellipsis. They can, therefore, be specified by deictic, numerative, epithet and classifier. Both deictic and numerative are more frequently used in nominal ellipsis than epithet and classifier. When the common noun, functioning as head of the nominal group, is elliptical, any specifier can function as the head, for example:

Here are my two white silk scarves.

a. Where are yours?

b. I used to have three.

c. Can you see any black?

d. Or would you prefer the cotton?

(Halliday & Hasan, 1976, p. 150)

In this example, yours (deictic), three (numerative), black (epithet), and cotton (classifier) function as the head because of the ellipsis of the common noun, which should be the head of the nominal group.

Verbal Ellipsis. It is an ellipsis on the verbal group. It “presupposes one or more words from a previous verbal group” (Halliday & Hasan, 1976, p. 167). The verbal group has only one lexical item, the verb. Verbal ellipsis is categorised into lexical ellipsis and operator ellipsis. Lexical ellipsis is about an ellipsis, which happens in the verbal group by taking out the last element. The lexical verb must be taken

out; sometimes, preceding elements of the lexical verb may be taken out, too. With such an ellipsis, the lexical verb is missing, so the modal operator shows the elliptical lexical verb. With this kind of ellipsis, the operator remains intact. By contrast, operator ellipsis is an ellipsis that occurs at the left of the verbal group. The lexical verb, therefore, is not taken out. In this case, what is to be omitted are the first element and sometimes the elements that come after the lexical verb of the verbal group, i.e., the subject and auxiliary (Halliday & Hasan, 1976). For example:

a. *Have you been swimming?* - *Yes, I have.*

b. *What have you been doing?* - *Swimming.*

(Halliday & Hasan, 1976, p. 167)

Clausal Ellipsis. It is an ellipsis that is outside the verb *per se*. It deals with the clause, which is composed of a modal element and a propositional element. Although the modal element contains the subject and the finite verb, the propositional element embodies the rest of the verbal group, complements and adjuncts. The ellipsis can occur on a WH-question's modal element or the propositional level. An operator ellipsis can occur when the propositional element is a response to yes/no questions and WH-questions where the subject becomes unknown, for example:

What was the Duke going to do? - *Plant a row of poplars in the park.*

Who was going to plant a row of poplars in the park? - *The Duke was.*

a. *The plane has landed.* - *Has it?*

b. *Has the plane landed?* - *Yes, it has.*

Who taught you to spell? - *Grandfather did.*

(Halliday & Hasan, 1976, pp. 197-199)

Unlike Halliday and Hasan (1976), Kuiper and Allan (1996) point out that an ellipsis is about an “empty position which is interpretable in the context” (p. 279). Thus, ellipsis is “the process where constituents are missing but interpretable from context” (p. 279); it is an elliptical phenomenon and can make “discoveries and breakthrough developments, both empirically and theoretically” (Craenenbroeck & Temmerman, 2019, p. 16). However, it is considered a textual aspect of cohesion, which plays a grammatical cohesion role (Halliday, 1985; Halliday & Natthiessen, 2004). Ellipsis is the most problematic cohesive device because it is “a case of leaving something unsaid which is nevertheless understood” (Baker, 2018, p. 201). Halliday and Hasan (1976) brought in their theory of cohesion, but no explanation has been given on how cohesive ties like ellipses behave when rendering ideas from one language to another. Due to the fact that languages are different structurally, there should be some cases that have no equivalence, which will require shifts.

Shifts in Translation

Shift is defined by Palumbo (2009) as “a linguistic deviation from the original

text, a change introduced in translation with respect to either the syntactic form or the meaning of the ST” (p. 104). This linguistic deviation is termed by Catford (1965) as ‘shift’; it is termed by Vinay and Darbelnet (1995) as ‘procedures’; termed by Chesterman (1997) as ‘strategies.’ The term ‘shift’ was used by Catford (1965) to mean “departures from formal correspondence in the process of going from the SL to the TL” (p. 73). Shifts are changes that may occur in translating a text from a source language to a target language due to the lack of formal correspondence, which can happen grammatically and lexically (Catford, 1965).

Nevertheless, Vinay and Darbelnet (1995) consider shifts as translation procedures; they categorise them into borrowing, calque, literal translation, transposition, equivalence, modulation, and adaptation. Considering these translation procedures, which are kinds of shift, modulation can be more difficult to apply because it is “a variation of the form of the message, obtained by a change in the point of view” (Vinay & Darbelnet, 1995, p. 36), for example:

It is not difficult to show...: *Il est facile de démontrer...*

(Vinay & Darbelnet, 1995, p. 37)

In the above example, the English sentence is in the negative form, whereas the French sentence is in the affirmative form. The points of view in the English and French sentences are not the same. In the English sentence, the point of view is about something which is not difficult, whereas

in the French sentence, the point of view is about something easy (*Il est facile*). Jones (1997) considers modulation as a change in the way of thinking because it deals with different categories of thoughts. Newmark (1988) points out that Shift is “a translation procedure involving a change in the grammar from SL to TL” (p. 85). He believes any categorisation of modulation is unconvincing because it is an umbrella term for “almost everything beyond literal translation,” which is limitlessly stimulating (p. 88).

For Popovič (1970), the shift is about changing an element or elements of the source text with an element or elements that cannot occur in the target text. According to Pekkanen (2007), a style shift is a shift that can be either mandatory or optional. It is mandatory due to systematic dissimilarity between SL and TL in terms of syntax, meaning, and culture; it is optional when it depends on the translator’s style and choices. Moreover, Blum-Kulka (2000) points out that the translation shift is about explicitation, which results from the shift of cohesion and coherence at the discourse level of the target text. That is to say, explicitation is “an observed cohesive explicitness from SL to TL texts regardless of the increase traceable to differences between the two linguistic and textual systems involved” (Blum-Kulka, 2000, p. 300). She believes that shift occurs due to explicitation requirements and potential explicit and implicit text meaning.

Catford (2000) categorises shifts into four categories, which are: (a) **structure**

shift in which the structure of source language is changed when it is translated into the target language, e.g., a white house = *une maison blanche*; (b) **class shift** in which shift happens when a translator changes the class of one item from the source language to another class of the target language. For instance, changing the adjective from a source language into a noun in a target language, e.g., a medical student = *étudiant en médecine*; (c) **unit shift** in which the shift involves a change in the rank in terms of sentence, clause, phrase, word, and morpheme while translating the source language into the target language, e.g., changing formal equivalence into dynamic equivalence, e.g., *Standardiste* = switchboard operator; (e) **intra-system shifts** is an internal shift in the system when both source and target languages almost share similar systems in terms of formal and semantic correspondence. In this case, the translator can decide between the possible options the source language allows and target language norms and peculiarities, For instance, replacing the singular with plural or the active voice with the passive voice, e.g., the dishes = *la vaisselle. Ce livre se trouve à la bibliothèque* = this book is found in the library.

Related Studies

Kane's (2020) investigation of verb phrase ellipsis in English and French reveals that ellipsis can occur in English after deontic and epistemic modal verbs. In contrast, French ellipsis occurs after deontic modals such as *devoir* (must, should) and *pouvoir*

(can, may). Hijjo (2013a) has studied the grammatical shifts in English-Arabic translation, and the study reveals that the meaning and quality of the translation are affected owing to translators' ineffective manipulation. In the same vein, Hijjo (2013b) has studied structural and syntactic shifts in the translation of political French news; his study indicates that the sentence structure changes, which makes the message different. Mahamdeh (2020) has done a study on the translation of cohesive devices in legal translation from English into Arabic, and the results reveal that cohesive devices and shifts are frequently determined by "some language peculiarities and some language norm choices" (p. xx). Turchamun (2019) points out that translation and shift cannot be separated because they are necessary for the target readers' acceptability.

Moreover, Nezam and Pirnajmuddin (2012) have studied the strategies translators use to render ellipses as stylistic features from English into Persian. The results show that the translators' manipulation has affected the genuine source text art. Moreover, Marzukee and Halim (2020) have investigated the strategies used to achieve equivalence in French-English subtitles, and they have found that addition, deletion, and category shift are the effective strategies translators use to achieve equivalence in subtitles translation. Mutal et al. (2020) studied ellipsis in medical speech, and the study revealed that the best approach to deal with ellipsis in medical speech is to use a hybrid approach (neural machine

translation and classification models). However, Arhire (2017) examines the translatability of ellipsis, substitution and reference in students' translations, and the study reveals that stylistic effect prevails over the formal level between the source language text and target language text.

The connectedness and coherence of the above-mentioned studies and the topic of this study deal with textual cohesion, which consists of reference, substitution, ellipsis, conjunction, and lexical cohesion (see Halliday, 1985), and the strategies of translating cohesive devices. Overall, the literature review has shown theories explaining the nature of ellipsis and shift. However, no research has been done on the determinants of ellipsis and shift occurrences in French-English literary text translation.

Summary of Madame Bovary

Madame Bovary is a novel which takes place in Northern France near the town of Rouen. Madame Bovary was Charles Bovary's wife; she was beautiful but could not distinguish between romantic ideals and reality. She fell victim to her passions and romantic notions, which destroyed her marital life. After marriage, Madame Bovary did not appreciate her husband's dull middle-class life and lack of ambitions. Longing for romantic adventures like those she used to read in sentimental novels, she started having a love affair with young men, Rodolphe and Léon, who corresponded to her romantic drive. To be in vogue, she had to borrow money to buy things convenient

to her romantic desires. However, Madame Bovary's love affair with the two young men was unsuccessful. The two young men left her in the lurch because they did not love her really; they wanted only to exploit her sexually and financially. Owing to her romantic deception, she developed boredom and depression. Her situation worsened when she could not pay her debts to Mr Lheureux, who threatened to confiscate her household property. As she did not want her husband to know about her debt problems, she swallowed arsenic and committed suicide. After Madame Bovary's death, Mr Bovary tried to pay her debts but, much to his surprise, he discovered his wife's love letters with Rodolphe and Léon, which afflicted him deeply and brought about his death, leaving behind their child, Berthe, who becomes an orphan.

METHODOLOGY

Translation was a branch of applied linguistics, but it became an independent discipline in the 20th century, which makes translation introduce its research methodology. Zanettin and Rundle (2022) point out that research methodology in translation studies has become more important and pressing after the discipline became independent in the 20th century. Research methodology in translation studies can be product-oriented, process-oriented, participant-oriented, and context-oriented (Saldanha & O'Brien, 2014). This study is, therefore, a qualitative study on text meaning, which Halliday and Hasan (1976) consider to be "a semantic unit: a unit not of

form but of meaning” (p. 2). In translation and interpreting studies, data can be taken from various sources, namely “text as data, survey responses, ethnographies, experiments, and observational research” (Zanettin & Rundle, 2022, p. 308). The data of this research are collected from translated texts. Therefore, the research is product-oriented (see Saldanha & O’Brien, 2014). The data in such research will be assessed “to consider how representative the data is and whether or not it is possible to extrapolate from the data to language use or communicative behaviour in a community or context in general” (Baumgarten, 2022, p. 181).

This research is descriptive qualitative research. Saldanha and O’Brien (2014) point out that “research on translated texts can be carried out with a descriptive/explanatory or an evaluative approach in mind” (p. 50). This study, therefore, is carried out in literary prose texts to investigate the occurrence of ellipses and shifts in French-English translation.

The study is done manually by reading all the source and target texts. Saldanha and O’Brien (2014) point out that “one might wish to randomly select sentences from a large corpus of text, or it may be more appropriate to select coherent passages of text, or text that demonstrates specific linguistic features” (p. 105). Therefore, the data identification and collection are done on extracts demonstrating specific linguistic aspects of ellipsis and shift. This study limited itself to only occurrences of ellipsis and shifts across sentence boundaries. Halliday and Hasan (1976) clarify that

“it is the inter-sentence cohesion that is significant, because that represents the variable aspect of cohesion, distinguishing one text from another” (p. 9).

The data identified and collected from the novel’s first to last page are 30 occurrences. Extracts which embody the phenomena of ellipsis and shifts are used in the discussion. The page numbers of similar cases of ellipsis and shift are stated in the discussion. The challenges encountered are related to the categorisation (see Tables 1, 2, and 3 of the result and discussion) of the occurrences due to the differences and norms of the French and English languages. Challenges have been overcome by the researcher’s cognition and assessment of both source and target text.

Abbreviations are used to make the manuscript easy to read. These abbreviations are ST (source text), TT (target text), FST (French source text), ETT (English target text), and SC (shift category). Data analyses on ellipsis by Moindjie (2003) are used to describe shift, ellipsis, and their translatability. Halliday and Hasan’s theory (1976) of cohesion is utilised to support this study for its convenience and systematicity.

The corpus of this study is a literary text, a novel. The novel is a literary genre characterised by openness, popularity, universality, and connections with all genres (Fowler, 1997; Shroder, 1969). Translating a novel corpus can be challenging due to language peculiarities and the author’s style and aesthetic value (Hartono, 2018). Madame Bovary was chosen because it embodies these aspects that stimulate research.

The representativeness of a corpus is related to size and genre. It can be done on full texts or extracts, but extracts have advantages because “they allow better coverage of language” (Saldanha & O’Brien, 2014, p. 74). The representativeness of the novel is that the novel genre is characterised by openness of form and content. Lacey (2000) points out that the novel has become the most influential literary genre compared to audio-visual materials because it focuses on individual actions in “the searching for truth” and is “exceptionally elastic and does encompass non-conventional narratives” (p. 90). *Madame Bovary* was written in 1857 by Flaubert and published by *Editions Rencontre* in 1965; Steegmuller translated it as *Madame Bovary*. There may be many translations of the novel mentioned above into English. However, the translation done by Francis Steegmuller is chosen for convenience in that it can reflect the translations of other novels in terms of ellipses in French-English translation.

Flaubert is “one of those writers who have shaped the modern view of ‘good prose writing’. His stylistic sensitivity and adventurousness have enormously influenced literature both inside and outside France” (Finch, 2004, p.162). *Madame Bovary* is Flaubert’s masterpiece of his fiction writings. It is chosen to carry out this study because it is one of the most influential novels in world literature. *Madame Bovary* is the principal masterpiece of realism, which established the realist movement; the novel is also notable for its brilliant style (Cregan-Reid, n.d.). *Madame*

Bovary’s literary attributes justify that the corpus can reflect and represent the novel and other genres.

RESULTS AND DISCUSSION

Ellipsis Occurrence

The results consist of three tables which embody the data results of the research. Tables 1, 2, and 3 show the occurrences of ellipsis and shift in *Madame Bovary*. Some language peculiarities and norms determine the infrequent and frequent use of ellipses. It is found that ellipses are not used more in the SL, which depends more on other cohesive ties. One category of ellipses, clausal ellipsis, is rendered literally from the ST to the TT. It is found to occur due to the source language and target language preferences. French is analytic and more demonstrative, whereas English is synthetic and more elliptical. For example:

... *mais je **les** verrai...* (Flaubert, 1965, p. 123) = ... but I’ll hear **some...**

(Flaubert, 1857/1957, p. 94)

- *J’ai éprouvé **cela**, répondit-elle* (Flaubert, 1965, p. 124) = “Indeed I **have.**” she answered

(Flaubert, 1857/1957, p. 95)

In French, a personal reference, *les* and a demonstrative reference, *cela*, are used as cohesive ties, whereas a nominal ellipsis and a verbal ellipsis are used as cohesive ties in the TT. Such cases occur in translation not because of the translator’s choices and decisions but because of language peculiarity and preference. However, literal

translation is applied in clausal ellipsis because a language peculiarity or preference does not determine it. French language and English language norms allow such occurrence, for example:

A Tostes (Flaubert, 1965, p. 44) = *At Tostes* (Flaubert, 1857/1957, p. 12)

Ellipsis Shift

The results also indicate that the shift category (SC), class shift, and the translation procedure of modulation are more functional in dealing with nominal and verbal ellipses from French into English.

Table 1
Nominal ellipsis in Madame Bovary

FST	ETT	Shifts in TT	SC and TP
... mais je <u>les</u> verrai... (p. 123)	... but I'll hear <u>some</u> ... (p. 94)	Nominal ellipsis	Class shift; modulation
Mais où <u>en</u> trouverai-je? (p. 352)	But where can I find <u>some</u> ? (p. 334)	Nominal ellipsis	Class shift; modulation
- ... vous en achèteriez un <u>autre</u> ! (p. 114)	“You’d buy another <u>one</u> .” (p. 85)	Nominal substitution	Class shift; modulation
- Non, non, répondit <u>l’autre</u> ... (p. 172)	“There is nothing to be afraid of,” Charles told <u>him</u> . (p. 144)	Personal reference	Class shift; modulation
- ... que cela te fait du bien (p. 281)	... “it might do you some good.” (p. 258)	Nominal ellipsis	Class shift; modulation

Nominal Ellipsis

In *Madame Bovary*, the nominal ellipsis category is more used in the ST than in the TT. There are also some shifts concerning nominal ellipsis in the ST and the TT, but these shifts are more in the TT where ellipsis is used instead of certain cohesive ties used in the ST, for example:

- *Oh! La musique allemande, celle qui porte à rêver.*
- *Connaissez-vous les Italiens?*
- *Pas encore; mais je les verrai l'année*

prochaine, quand j'irai habiter Paris, pour finir mon droit

(Flaubert, 1965, p. 123)

“Oh, German music. It is the most inspiring.”

“Do you know Italian Opera?”

“Not yet – but I’ll hear some next year when I go to Paris to finish law school.”

(Flaubert, 1857/1957, p. 94)

In the ST, Emma asks Léon if he knows Italians, leaving you to infer the music

they are playing abstractly. So, a personal reference in the bottom line coheres with the sentence in the middle. However, in the English version, following the nature of the English language, the translator puts it concretely. The target extract talks about the Italian opera, not the performers, as in the case of the ST. The translator uses an ellipsis instead of a reference. So, the use of modulation in the sentence, ‘I shall hear some’, is impelled by the concreteness of the English language. That is why the point of view is different from the ST, but the meaning is still the same. This case occurs also on page 352 of the ST, which corresponds to page 334 of the TT. There are other cases that the TT shifts from the ST ellipses by using other cohesive ties; for example,

- *Mais ils vont me déchirer le tapis, continuait – elle...*

- *Le mal ne serait pas grand, répondit M. Homais, vous en achèteriez un autre!*

(Flaubert, 1965, p. 114)

“But they’re going to ruin my table,” she said, ...

“you’d buy another one”

(Flaubert, 1857/1957, p. 85)

The ST has a nominal ellipsis in the above texts because the head is deleted, and the modifier, *autre*, plays its role. However, the TT has no ellipsis because the translator opts for substitution. It sounds English also if an ellipsis is used instead of a substitution, e.g., “you would buy another.” It indicates that some phenomena may not emerge from the language idiosyncrasy but depend on the translator’s choice. It happens as far as this category is concerned on pages 172 and 281 of the ST, corresponding to pages 144 and 258 of the TT. Thus, there may be no word-for-word translation of ellipsis occurrences as some cohesive ties are interchangeable in translation.

Verbal Ellipsis

Table 2

Verbal ellipsis in Madame Bovary

FST	ETT	Shifts in TT	SC and TP
- J’ai éprouvé <u>cela</u> , répondit-elle (p. 124)	“Indeed I <u>have</u> ,” she answered (p. 95)	Verbal ellipsis	Class shift; modulation
... <u>Et toi?</u> (p. 243)	... “ <u>Are you?</u> ” (p. 219)	Verbal ellipsis	Class shift; modulation
- ... <u>Tu as tort</u> , ... (p. 281)	... “You’d be wrong <u>not to</u> , ... (p. 258)	Verbal ellipsis	Class shift; modulation

Table 2 (Continue)

FST	ETT	Shifts in TT	SC and TP
Le clerc affirma qu’il n’y <u>manquerait</u> pas... (p. 282)	The clerk said that he certainly <u>would</u> ... (p. 259)	Verbal ellipsis Verbal ellipsis	Class shift; modulation
- Eh! <u>non</u> , car vous n’êtes pas une femme... (p. 286)	“No, you <u>can</u> ’t! You’re not a woman.” (p. 265)	Verbal ellipsis	Class shift; modulation
- <u>Eh bien!</u> moi... (p. 352)	“ <u>Will you?</u> ” (p. 333)		Class shift; modulation

It is found that verbal ellipsis does not occur in ST of *Madame Bovary*. It is an occurrence that takes place only in the TT, for example:

- *Vous est-il arrivé parfois, reprit Léon, de rencontrer dans un livre une idée vague que l’on a eue ...*

- *J’ai éprouvé cela, répondit-elle*
(Flaubert, 1965, p. 124)

“Have you ever had the experience,”
Leon went on,

“Indeed I have,” she answered
(Flaubert, 1857/1957, p. 95)

In the above extracts, the verbal ellipsis occurs in the TT because the auxiliary can function as the head of the verbal group. In English, either the auxiliary or the lexis of the verbal group can be deleted. So, it is found that the verbal ellipsis is the main cause that brings about more ellipsis in the TT than in the ST. The following is another example:

- *Il me semble qu’au moment où je sentirais la voiture s’élancer, ce sera comme si nous montions en ballon, comme si nous partions vers les nuages. Sais-tu que je compte les jours ... Et toi?*
(Flaubert, 1965, p. 243)

“The moment I feel the carriage moving, I think I’ll have the sensation we’re going up in a balloon, sailing up into the clouds. I’m counting the days. Are you?”
(Flaubert, 1857/1957, p. 219)

In the above extracts, *et toi* is used as a comment tag to what is said before. The same happens in the TT. The difference is that the tag is formed in the TT with a verbal ellipsis in that the right part of the verbal group, “counting”, is elliptic. This case of non-verbal ellipsis of the ST and the verbal ellipsis of the TT occurs elsewhere on pages 281, 282, 286, 352, and 356, which correspond to pages 258, 259, 265, 333, and 338. It may indicate that, in translation,

calque cannot be applied in this subcategory, and the target language peculiarity may require transposition for verbal ellipsis.

Clausal Ellipsis

Table 3

Clausal ellipsis in Madame Bovary

FST	ETT	Shifts in TT	SC and TP
A Tostes (p. 44)	At Tostes (p. 12)	No shift	Literal
Charbovari. (p. 37)	Charbovari (p. 5)	No shift	Literal
- Ma cas.... (p. 37)	"My c-"... (p. 6)	No shift	Literal

It is found that this kind of ellipsis takes place in conversation in terms of responses that can be direct or indirect, and such an ellipsis occurs systematically in the ST and TT, for example:

Où irait-il exercer son art? A Tostes

(Flaubert, 1965, p. 44)

Where should he practice? At Tostes

(Flaubert, 1857/1957, p. 12)

The clausal ellipsis occurs in the two extracts. It may occur freely without any problem that can emerge from the uniqueness of the two languages. So, it is found that the TT calques this subcategory to its environment. The elliptical clause in the ST is (*Il irait exercer son art*) à Tostes. The same happens in the TT; the elliptical clause is (he should practice) at Tostes. To clarify this more, another occurrence of clausal ellipsis is discussed, for instance:

- Levez- vous, dit le professeur et dites- moi votre nom.

Le nouveau articula, d'une voix bredouillante, un nom

Intelligible

- Répétez

Le même bredouillement...: Charbovari.
(Flaubert, 1965, pp. 36-37)

"Stand up," repeated the professor, "and tell me your name."

The new boy mumbled a name that was unintelligible.

"Say it again!"

The same jumble... "Charbovari"

(Flaubert, 1857/1957, p. 5)

The above examples contain clausal ellipses in the source and target extract. The ellipsis occurs before the underlined words. In the French extract, the ellipsis is "*mon nom est...*" The same happens in the English extract where the ellipsis is "my name is..." So, this subcategory is not determined by the ST and TT peculiarities. These formal equivalences in terms of clausal ellipsis occur elsewhere in the selected passages on pages 37, 44, 114, 122-3, 152, 172-3, 209, 211, 249, 255, 279-80, 286, 351, 353, 355-6, 370, and 373-5, which correspond to pages 5-6, 12, 85, 93-4, 124, 145, 182, 184, 225, 230, 255-7, 264-5, 333, 335, 337-8, 353, and 356-9. So, clausal ellipsis may be a universal form in the two languages under study, and thus, it may not cause any problem in French-English translation.

The translation methods achieve effective meaning for the target language reader. Although some elliptical subcategories may sometimes be determined by the language specificity and the translator's choice, there are equivalent elliptical forms in clausal ellipsis. Using more ellipsis in TT as cohesive ties instead of other cohesive ties used in the ST enhances the meaning of TT. Among the four categories of shifts (structure shift, class shift, unit shift, and intra-system shift) introduced by Catford (2000), class shift is more functional not only because it enhances the Englishness of the text, but also because it functions within Halliday and Hasan's (1976) cohesion framework which embodies reference, substitution, ellipsis, conjunction, and lexical cohesion. French depends more on reference (personal and demonstrative reference), whereas English depends more on ellipses (nominal and verbal ellipsis). It has a positive effect on the translation in that the shifts done by the translator are on par with English language peculiarity and preference, which make the translation read as an original text.

CONCLUSION

The study shows that ellipsis is more used in the English language than in the French language. It also shows that the causes of such phenomena are the SL and TL preference, norms, and the non-existence of verbal ellipsis in the French language. French is more demonstrative than the English language, whereas the English language is more elliptical than the French

language because of French and English preferences and norms.

As a language of conciseness and logicity and the availability of verbal ellipsis, English is characterised by frequent ellipsis occurrences. Although some formal equivalent occurrences of nominal and clausal ellipses between the ST and the TT, class shift and modulation translation procedures are used more in the TT. The translator must, therefore, be aware of both source language peculiarities and norms and target language peculiarities and norms. Otherwise, there would be some mistranslations that would distort the meaning and coherence of the TT. Using nominal ellipsis, verbal ellipsis and clausal ellipsis, which cohere with items outside the propositions, clarifies coherence in that it denotes the hierarchical continuity and inter-relatedness of the propositions. The research reveals that language peculiarities related to concreteness and abstractness and norms related to language options are determinants of the translation procedure of the ellipsis cohesive device, which is found to enhance the literariness of novel literary texts. This study's contribution is that it adds to Vinay and Darbelnet's (1995) concept, which read "French works by representation where English works by ellipsis" (p. 161) in that class shift and modulation are found to be more functional in dealing with demonstratives, representation, and ellipsis in French-English translation.

Implication and Limitation of Study

The result of the study is that the occurrences

of ellipses are determined by language peculiarity and preference and that class shift and modulation are functional translation procedures for rendering textual cohesiveness and meaning. These findings can be used to optimise human translation and machine translation.

This research is a case study; it is limited in that it cannot be characterised by generalizability. The factors described and analysed are textual aspects related to ellipsis and translation shifts. Therefore, the study is also limited because extra-textual factors have not been incorporated because of time constraints and data size.

Recommendation for Future Research

Since this study is done on one hyponym of literature, novel, the study recommends that other research on the occurrence of ellipses and shifts in translation be done in other hyponyms of literature (e.g., poetry, drama, and short story) and other text types to get more general results on French- English ellipsis and shift translation.

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Museum Management Factors Affecting Generation Y Visitors' Decision-Making to Visit Museums

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ABSTRACT

Generation Y visitors, the largest portion of the population, are now passionate about traveling to an attractive destination and are open to new experiences. Museums, which traditionally attracted older visitors, are beginning to adapt and evolve to better connect with younger visitors, especially Generation Y, who have different desires and expectations. This quantitative research examines the museum management factors influencing Generation Y visitors' decision-making to visit museums. A questionnaire was used to collect data from 400 Generation Y Thai museum visitors. The data were analyzed using binary logistic regression. The results reveal four factors affecting Generation Y visitors' decision-making to visit museums—facilities, interpretation, technology/innovation, and activities—with a statistical significance of 0.05. The museum focusing on Generation Y visitors should provide facilities, interpretation, activities, technology, and innovation, as this study recommends. Therefore, the museum management focusing on Generation Y visitors should strive to create new experiences through interactive and innovative activities, aligning with technology to satisfy, excite and engage this generation.

Keywords: Decision-making to visit museums, generation Y visitors, museum management

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INTRODUCTION

The tourism industry is pivotal in driving every nation's economy forward. According to the World Travel and Tourism Council (WTTC), 2021 marked the beginning of the recovery for the global travel and tourism sector. Its contribution to the growth of the global economy reached USD 5.8 trillion,

constituting 6.1% of global GDP and supporting 289 million jobs for 6.7% of total employment (World Travel and Tourism Council, 2022). This growth profoundly impacts the lifestyles, behaviors, beliefs, attitudes, and customs of people in society, all manifest in their evolution (Chudintra, 2012). Therefore, studying theories related to human behavior is crucial and has been widely conducted in the tourism industry.

Generation theory aims to explore the behavior of different generations and is based on the belief that growing up in diverse surroundings can influence lifestyle behavior in various ways (Benckendorff et al., 2009). Many organizations and travel businesses have employed this theory to comprehend visitors' motivations and behaviors (Fok & Yeung, 2016; Jituea, 2018; Tan et al., 2019).

As different generations exhibit varying behaviors and demands, generation becomes a critical predictor of visitors (Kim et al., 2015). Generation Y, being the first to embrace the internet and technologies during the early stages of their lives (Qi & Leung, 2018), has distinct travel behaviors and demands compared to earlier generations. An increasing number of Generation Y visitors play a significant role in driving the nation's economy. According to the World Economic Forum (Neufeld, 2021), Generation Y comprises 1.8 billion people globally, accounting for 23% of the total global population. Therefore, Generation Y has emerged as a crucial target market for the global tourism industry. Likewise, in 2019, Generation Y made up 32% of

the total population in Thailand (Thairath, 2019), representing a substantial population with a high spending rate compared to other generations. Consequently, they have become the primary market for Thailand's tourism (Economic Intelligence Center, 2015; Thairath, 2019). Thus, Generation Y visitors were selected as the population for this study.

Museums are considered key attractions in cultural heritage tourism (Moreno-Gil & Ritchie, 2009). Many countries have successfully utilized museums to generate domestic income. Western countries such as the United States of America, the United Kingdom, and France have effectively used museums to attract significant visitors, resulting in substantial revenue (Expedia Team, 2017; Statista, n.d.; On Being, 2019). Over the past five years, museum tourism in Thailand has experienced continuous growth. The number of museums and learning centers in Thailand has increased by over 15%, indicating a shift in people's travel preferences towards greater interest in museum tourism (Banmuang, 2018). Consequently, several relevant organizations strive to restore, enhance, and support museums as national learning centers to attract Generation Y visitors—a vital marketing target. This strategic approach positions Thailand to capitalize on the growth of museum tourism, offering a promising outlook for the future development of Thailand's museums.

Despite the rapid development of museum tourism, an overview of museum management suggests that only a few of

the 1,500 museums in Thailand capture visitors' interest. It raises questions about the disinterest of Thai people in their museums. Scholars have proposed several reasons for this disinterest, including a failure to cultivate young people's interest in museums, the perceived irrelevance of museums to modern times, outdated presentation, lack of interpretation, insufficient public relations efforts, and underutilization of innovation and new technology. Consequently, some museums in Thailand have been labeled as 'dead museums' (Chawsamun, 2014; Panthong, 2022).

Given the various types of museums, this study focuses on history and archaeology museums, which are the most prevalent in Thailand. Recognizing the importance of Generation Y visitors to museums and their role in improving museums to meet the needs of today's visitors, this study delves into the museum management factors that attract visitors. Existing literature reviews cover several museum management factors that influence visitors, such as exhibition (Moreno-Gil & Ritchie, 2017), physical surroundings (Viboonpin & Pasunon, 2016), activities (Su & Teng, 2018), staff (Conti & Pencarelli, 2017), interpretation (Manna & Palumbo, 2018), public relations (Moreno-Gil & Ritchie, 2017), facilities (Manna & Palumbo, 2018), and technology and innovation (Kosolkarn, 2017). The primary goal of this research is to investigate the impact of these museum management factors on Generation Y visitors' decision-making when visiting museums. The study hopes to leverage the results as recommendations to

enhance Thailand's museums, transforming them from mere repositories of artifacts to dynamic centers for education and social experiences. Moreover, a literature review revealed a gap in investigating museum management factors concerning Thai Generation Y visitors, sparking the researcher's interest. Thus, this study aims to fill that gap by exploring the museum management factors influencing Generation Y visitors' decisions to visit museums.

LITERATURE REVIEW

Generation Y

Generation Y is a concept that seeks to define the young individuals about to enter the labor market, constituting the primary market within the tourism industry (Wannasan & Jianvittayakit, 2022). Benckendorff et al. (2009) and Rudolph et al. (2018) state that members of Generation Y are also known as 'Millennials' and were born between 1980 and 2000. Having come of age during the information era, they possess a keen desire to engage with life and are adept at communication through computer networks. Additionally, Generation Y, born between 1977 and 2003, grew up during globalization and cultural hybridity. This upbringing has granted them freedom of thought and expression, an embracement of cultural differences, and a readiness to learn about them (Moscardo & Benckendorff, 2010).

Within the realm of tourism, Generation Y is the most intriguing and rapidly expanding market, potentially constituting the largest market. They are among the most

educated and wield significant influence over the subsequent generation (Economic Intelligence Center, 2015; Neufeld, 2021). Hence, existing literature strongly supports the idea that Generation Y holds great importance in the tourism industry. Many scholars, such as Martínez-Sala et al. (2021), Richard and Wilson (2004), and Tapscott (2009), have defined its members as individuals who grew up during an age of technological, media, and information advancement, making them avid users of modern technology. However, the age range of Generation Y varies in each scholar's definition. For this study, the researcher defines Generation Y according to the United Nations (UN) definition: individuals born between 1981 and 2000 (Economic Intelligence Center, 2015). In 2018, Thailand's Generation Y was estimated to be 18,731,470 people (Official Statistics Registration Systems, 2018), a figure used to represent the population in this study.

Characteristics and Behavior of Generation Y. A review of Generation Y's characteristics and behavior in Thailand and other countries reveals similar attitudes and behaviors. The Economic Intelligence Center (2015) of Siam Commercial Bank surveyed and analyzed Generation Y's characteristics in Thailand, yielding results comparable to studies conducted in the US (Tapscott, 2009). The results from both studies identify the following key characteristics of Generation Y: (i) Technologically adept and interested in

innovations: Having grown up in the digital age, communication and access to information have been effortless for them, resulting in new needs for consuming goods and services to craft their own experiences, (ii) Highly social: Generation Y enjoys interacting with one another, maintaining numerous social connections through online and offline social media. Online social media serves as their primary channel for expressing thoughts, sharing experiences, and knowledge with friends and others, and (iii) Discerning: Generation Y has high standards and tends to choose products and services based on their needs. Furthermore, Tapscott (2009) identifies the following values: (i) Freedom: Generation Y values freedom, often making independent decisions and actions. They are not attached to specific choices, causing their needs to evolve constantly; (ii) Adaptability: They readily embrace change, adapting to unique circumstances; (iii) Honesty and ethics: Generation Y accepts societal and individual differences, are straightforward thinkers, and prioritize social responsibility, (iv) Entertainment: They prioritize enjoying life and entertaining themselves, and (v) Rapidity: Growing up in the digital age, they expect instant interaction and quick results.

According to a survey by the Tourism Authority of Thailand (2017), Generation Y possesses a broader worldview compared to other generations, influenced by advancements in digital technology and social networks. They are knowledgeable, assertive, individualistic, and eager to seek new experiences. Consequently, their travel

behavior revolves around learning about culture, traditions, and local ways of life through visits to museums, art exhibitions, natural attractions, and tourist sites that offer modern services and innovations, inspiring a new perspective on life. It aligns with the conclusion of Lerspapatthananon (2018), highlighting that the travel motivation for Generation Y is to explore cultures, seek new experiences, and learn about different cultures and lifestyles while having fun in various places. Growing up in the age of information and modern technology significantly influences the thoughts, attitudes, and lifestyle behaviors of Generation Y. Therefore, management and marketing for Generation Y must prioritize communication, innovation, new technology, convenience, and value for money. Tourist attractions should offer a variety of entertaining, challenging, and novel experiences to Generation Y visitors, given that travel experiences play a significant role in determining future destination choices (Karl et al., 2020).

Concept of Museum Management

While various types of museums exist, such as art, archaeology, history, maritime, and war museums, this study specifically focuses on history and archaeology museums in Thailand. Thailand boasts a rich and diverse historical and archaeological heritage, with ancient civilizations, historical sites, and archaeological treasures dating back thousands of years. These museums play a pivotal role in preserving the country's cultural identity and providing valuable

insights into preserving and showcasing this heritage. In addition, history and archaeology museums are prevalent in Thailand and stand as significant tourist attractions, offering visitors a deeper understanding of the country's history and archaeological discoveries. A study of these museums in Thailand can shed light on the challenges they face, including funding, conservation, and the need to engage younger generations and identify opportunities for improving visitor experiences and museum management.

The concept of museum management has evolved from individual collections of treasures, antiquities, or rare items. Over time, these collections were exhibited to allow people to see and learn about them. Eventually, museums developed into educational institutions displaying antiquities and artifacts that serve as evidence of human beings and their natural environments and creations, catering to learning and pleasure. Including being a non-profit, permanent institution in the service of society (International Council of Museums Nederland, 2020; Saranurak, 2016). Siririsak (2016) notes that museum management has existed for centuries but gained prominence after European administrative reforms. Since then, museums have become instruments of national and self-expression for countries and their citizens. Presently, museums are managed to promote the tourism industry and attract both domestic and foreign visitors, allowing them to appreciate the cultural heritage of each country. If museums effectively present

the destination's identity, it will influence attitudes and perceptions, subsequently impacting the behavioral intention to travel to that destination (Han et al., 2019).

A literature review reveals eight main factors regarding museum management: exhibitions, physical surroundings, activities, staff, interpretation, public relations, facilities, and technology and innovations. The following discussion delves into these factors.

First, exhibitions are crucial for museums to disseminate knowledge to visitors by presenting stories and collectibles through integrated techniques and design methods, providing them with knowledge and enjoyment, cultivating positive attitudes towards conservation, and engendering an appreciation of the value of the objects or stories on display (Black, 2005; Chumpengpan, 1987; Sukkram, 2009). From the research studies conducted by Daria and Andrzej (2018), Moreno-Gil and Ritchie (2017), Pluemsamrungsit and Wilaikum (2018), Su and Teng (2018), Tussama (2017), Wisudthiluck (2016), it was found that variables significantly related to exhibitions include: (i) objects or materials on display, (ii) topics and contents on display, (iii) presentation techniques, and (iv) forms of presentations. These variables are fundamental to the exhibition factor and can help attract visitors' interest. Therefore, the hypothesis can be formulated as follows:

H1: Exhibition factors influence Generation Y visitors' decision-making to visit museums.

Second, physical surroundings are crucial in museums, encompassing various aspects of the internal museum environment, such as atmosphere, techniques, and methods used to enhance exhibition effectiveness (Viboonpin & Pasunon, 2016). Mentioned research studies by Daria and Andrzej (2018), Mey and Mohamed (2010), Moreno-Gil and Ritchie (2017), Pluemsamrungsit and Wilaikum (2018), Ramon et al. (2016), Saranurak (2016), Su and Teng (2018), which have found significant variables related to the physical surroundings include: (i) architecture or building structure, (ii) location, (iii) signs and signposts, (iv) atmosphere, (v) cleanliness, (vi) safety, (vii) accessibility, and (viii) light and sound. These factors substantially impact the visitor's experience and can influence their decision to revisit the museum in the future. Therefore, the hypothesis can be formulated as follows:

H2: The physical surroundings factor influences Generation Y visitors' decision-making to visit museums.

Third, activities are considered a factor related to tourism, holding significant importance in attracting tourists to travel to their destination and fostering exchange and learning experiences. Additionally, they create interactions with other museum visitors, ultimately making the museum atmosphere enjoyable, lively, and engaging rather than mundane (Chomchoei, 2014; Daria & Andrzej, 2018). Furthermore, places where positive interactions between tourists can contribute to experiences and provide a

competitive advantage for destinations (Li et al., 2023). From research studies conducted by Chomchoei (2014), Conti and Pencarelli (2017), Daria and Andrzej (2018), Manna and Palumbo (2018), Sanguankeo (2014), it was found that significant variables related to activities include: (i) a variety of activities, (ii) enjoyable activities, (iii) activities that promote participation, and (iv) extra or special activities. These factors are crucial in making museums dynamic, lively, and capable of stimulating visitor exchange and learning experiences. They also have a significant impact on creating satisfaction and attracting tourists to revisit. Therefore, the hypothesis can be formulated as follows:

H3: Activities factors influence Generation Y visitors' decision-making to visit museums.

Fourth, staff are essential to propel the operation and activities in museums. Nukong et al. (2016) state that training staff to have the knowledge, abilities, good characteristics, and positive attitudes toward museum work will improve the quality of services to meet visitors' needs and influence their decisions to revisit in the future. Based on research conducted by Chomchoei (2014), Conti and Pencarelli (2017), Kiewwatana (2009), Moreno-Gil and Ritchie (2017), Pluemsamrungsit and Wilaikum (2018), Ramon et al. (2016), Viboonpin and Pasunon (2016), it was found that significant variables related to staff include: (i) friendliness, (ii) knowledge and abilities, (iii) proper dress, (iv) service enthusiasm, and (v) personalities and

manners. These variables provide visitors with a valuable and satisfying experience, influencing their decisions to travel again in the future. Therefore, the hypothesis can be formulated as follows:

H4: Staff factors influence Generation Y visitors' decision-making to visit museums.

Fifth, interpretation is the art of communication to introduce an interesting story to visitors. It enables visitors to understand and recognize the value and importance of the museum to historical, natural, art, and cultural tourism. Interpretation is key to increasing the value of products and services and entertaining and impressing visitors (Department of Tourism, 2015). Based on research conducted by Conti and Pencarelli (2017), the Department of Tourism (2015), Jaikrajarn et al. (2014), Janchoungchot (2014), Kaewpijit (2016), Kanokmongkol (2010), Manna and Palumbo (2018), it was found that significant variables related to Interpretation include: (i) signs and message boards, (ii) live shows or demonstrations, (iii) video and audio material, (iv) individuals, and (v) QR codes. These variables are considered important in all tourist destinations, particularly in places like museums, which are sensitive spaces requiring meaningful communication to convey stories, knowledge, understanding, and enjoyment to visitors. Therefore, the hypothesis can be formulated as follows:

H5: Interpretation factors influence Generation Y visitors' decision-making to visit museums.

Sixth, public relations are a marketing communication element emphasizing publishing museums' news to the public. It allows visitors interested in visiting the museum to view the information rapidly and influences their choice to visit. Drawing from research by Moreno-Gil and Ritchie (2017), Pluemsamrungit and Wilaikum (2018), and Sanguankeo (2014), significant variables pertaining to public relations comprise (i) social media, (ii) industrial media, (iii) individuals, and (iv) organizations. These variables serve as channels for extensively spreading museum-related information and news to the public, capturing attention, and potentially stimulating tourism decision-making. Therefore, the hypothesis can be formulated as follows:

H6: Public relations factors influence Generation Y visitors' decision-making to visit museums.

Seventh, facilities are a fundamental factor necessary for visitors. Museums are not only places for exhibitions but also relaxation. Manna and Palumbo (2018) and Mey and Mohamed (2010) stated that museum facilities can satisfy visitors and motivate them to revisit. Referring to research by Chomchoei (2014), Moreno-Gil and Ritchie (2017), Muskat et al. (2013), Pluemsamrungit and Wilaikum (2018), significant variables related to facilities are identified (i) parking lots, (ii) souvenir stores, (iii) restaurants or cafés, (iv) Internet and Wi-Fi access, (v) bookstores or libraries, (vi) toilets, (vii) reception halls or information centers, (viii) air conditioners,

and (ix) baggage services. These factors hold significance for museum management as they can generate satisfaction and leave a lasting impression on visitors. Such sentiments may influence the decision to revisit the museum in the future. Therefore, the hypothesis can be formulated as follows:

H7: Facilities factors influence Generation Y visitors' decision-making to visit museums.

Eighth, technology and innovations are important factors in modern tourism management due to their potential to promote interactive experiences among visitors. It leads to self-learning and allows visitors to deeply understand the contents of presentations while meeting their thirst for learning, promoting pleasure and enthusiasm (Jewitt, 2014; Pluemsamrungit & Wilaikum, 2018). From the research studies conducted by Bunlikhitsiri (2017), Kosolkarn (2017), Manna and Palumbo (2018), Mey and Mohamed (2010), Pakorn (2018), Vorapoj et al. (2018), significant variables related to technology and innovations include (i) digital media, (ii) multimedia, (iii) augmented reality (AR), and (iv) artificial intelligence (AI). These variables enhance knowledge and enjoyment and create positive experiences for tourists, which in turn influence their decision to revisit. Therefore, the hypothesis can be formulated as follows:

H8: Technology and innovation factors influence Generation Y visitors' decision-making to visit museums.

According to this theory, the conceptual framework for exploring museum management factors affecting Generation Y visitors' decision-making to visit museums is shown in Figure 1.

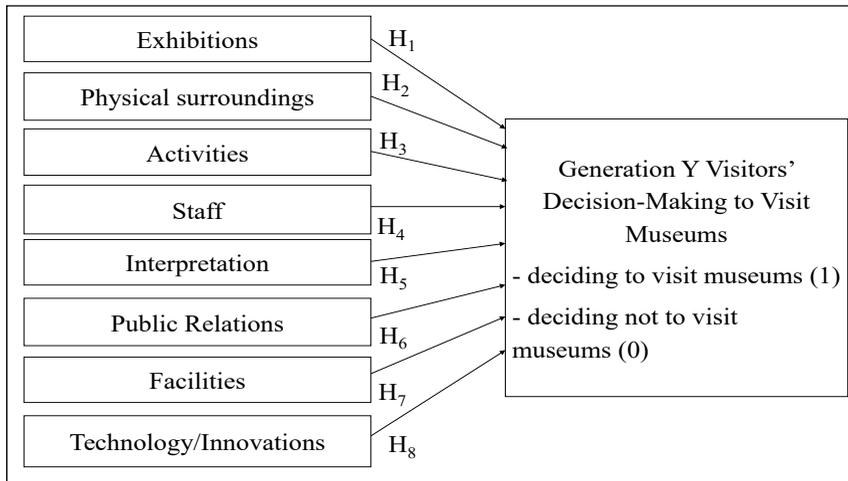


Figure 1. Conceptual framework

RESEARCH METHODOLOGY

Sample and Data Collection

The sample group comprised Thai Generation Y visitors. The sample size was determined using Yamane’s (1967) formula. Data were collected from 400 participants selected through purposive sampling. Specifically, eligible participants were identified based on two criteria: (i) Generation Y visitors born between 1981 and 2000 and (ii) having experience with history and archaeology museums.

The questionnaire was distributed through online platforms such as Facebook pages related to Thai museums and relevant websites. The results revealed that most respondents were female (66.50%) and had obtained a bachelor’s degree or its equivalent (60.50%). Most of them were students (35.50%), reported an average monthly income of 15,001–20,000 baht (16.50%), and resided in central Thailand (52.00%), as shown in Table 1.

Table 1
Participant demographics

Variables	No. of participants	Percentage (%)
Gender		
Female	266	66.50
Male	134	33.50
Educational Background		
Bachelor’s degree or equivalent	242	60.50

Table 1 (Continue)

Variables	No. of participants	Percentage (%)
Above bachelor's degree	136	34.00
Below bachelor's degree (Secondary School)	22	5.50
Occupation		
Student	142	35.50
Private officer	99	24.75
Government officer/state employee	76	19.00
Business owner	52	13.00
Employee	14	3.50
Unemployed	10	2.50
Other (Freelancer)	7	1.75
Average monthly income		
No income (Unemployed & some students with no income)	41	10.25
Below 10,000 baht	58	14.50
10,001–15,000 baht	50	12.50
15,001–20,000 baht	66	16.50
20,001–25,000 baht	56	14.00
25,001–30,000 baht	41	10.25
30,001–35,000 baht	25	6.25
Above 35,000 baht	63	15.75
Domicile (Regional)		
Central	208	52.00
South	70	17.50
East	35	8.75
North	31	7.75
Northeast	29	7.25
West	27	6.75

Research Instrument

This study utilized a questionnaire to collect quantitative data. The independent variables (X) were the eight museum management factors: (i) exhibitions, (ii) physical surroundings, (iii) activities, (iv)

staff, (v) interpretation, (vi) public relations, (vii) facilities, and (viii) technology and innovations. The questionnaire employed a 5-point Likert scale to assess each factor, where 5 indicated the strongest influence, and 1 indicated the least. This method

exhibited higher reliability compared to other measures, and the results were simpler to analyze (Cheyjunya, 2015; Lopraditpong, 2007). The dependent variable (Y) was Generation Y visitors' decision to visit museums, where 0 indicated deciding not to visit museums, and 1 indicated deciding to visit museums.

Data Analysis

The collected data were analyzed using binary logistic regression analysis in the Statistical Package for the Social Sciences (SPSS) to examine the museum management factors affecting Generation Y visitors' decision-making to visit museums. This analysis was appropriate to study the relationship between the independent variables (X) and the dependent variable (Y) because the dependent variable had to be a dichotomous group variable where 1 referred to a positive and 0 to a negative result. Additionally, the independent variable could be a quantitative or group variable (Vanichbuncha, 2016). Consequently, binary logistic regression analysis was suitable for this research because the decision to visit

museums was a dichotomous dependent variable, meeting the statistical criteria.

RESULTS

All eight independent variables were entered into the binary logistic regression equation with Enter in SPSS to predict the museum management factors influencing Generation Y visitors' decision-making to visit museums. The results are displayed in the following table.

As shown in Table 2, the goodness of fit test revealed that the -2 log likelihood (-2LL) value was 60.323, and the coefficients of determination (R^2) of Cox and Snell and Nagelkerke were 0.393 and 0.822, respectively. It suggests that 82.20% of the variation in Generation Y visitors' decision-making to visit museums can be explained by the variables under examination. In terms of the Hosmer-Lemeshow test, the Chi-square value stood at 2.970, with a corresponding p -value of 0.936. Notably, this p -value exceeds the standard statistical significance level of 0.05, indicating that the model was fit for the chosen analysis.

Table 2
The goodness of fit test

Step	-2 Log likelihood	Cox and Snell R Square	Nagelkerke R Square
1	60.323 ^a	0.393	0.822
Hosmer and Lemeshow test			
Step	Chi-square	df	Sig.
1	2.970	8	0.936

Table 3

Results of the analysis of museum management factors influencing Generation Y visitors' decision-making to visit museums

Variables	Coefficients (B)	S.E.	Wald	Sig.	Exp (B)
Exhibitions	0.316	0.943	0.112	0.737	1.372
1. There are a variety of objects on display.					
2. Exhibited objects are relevant to lifestyles and society.					
3. The topics and content of the exhibitions are interesting.					
4. Various presentation techniques are used.					
5. There are various types of presentations.					
Physical surroundings	1.511	0.804	3.532	0.060	4.532
1. The architecture is beautiful and modern.					
2. The architecture reflects objects on display.					
3. The locations are convenient and accessible from tourist attractions.					
4. Signs and signposts are placed in convenient locations.					
5. The atmosphere is pleasant, beautiful, and uncrowded.					
6. The museum's area is clean and tidy.					
7. There are security officers.					
8. Surveillance cameras and security systems are installed.					
9. The walkway designs offer systematic accessibility.					
10. The light and sound are relevant to presentations.					
Activities	2.087	0.754	7.652	0.006*	8.060
1. Various activities promote learning.					
2. The activities are enjoyable.					
3. The activities promote collaboration with others.					

Table 3 (Continue)

Variables	Coefficients (B)	S.E.	Wald	Sig.	Exp (B)
4. Extra activities (training, seminars, etc.) are held.					
Staff	-0.646	0.648	0.994	0.319	0.524
1. The staff are friendly and cheerful.					
2. The staff are knowledgeable and can provide accurate information.					
3. The staff's dress is appropriate to the museum atmosphere.					
4. The staff are eager to serve visitors.					
5. The staff have good manners and trustworthy personalities.					
Interpretation	2.387	0.855	7.785	0.005*	10.879
1. Signs or message boards communicate the meaning clearly.					
2. Live shows or demonstrations are given to communicate the meaning.					
3. Video and audio aids are used to narrate the story.					
4. The staff or speakers lead tours.					
5. Information is available via a QR code.					
Public relations	-1.096	0.756	2.101	0.147	0.334
1. Public relations are conducted through social media.					
2. Public relations are conducted through industrial media.					
3. Public relations are conducted through staff or personnel.					
4. Public relations are conducted through organizations.					
Facilities	2.579	0.995	6.721	0.010*	13.187
1. The parking lots are large and sufficient.					
2. Souvenir stores are available.					
3. The souvenirs are meaningful and relevant to museums.					
4. Restaurants and cafés are available.					

Table 3 (Continue)

Variables	Coefficients (<i>B</i>)	S.E.	Wald	Sig.	Exp (<i>B</i>)
5. Internet or Wi-Fi services are provided free of charge.					
6. Libraries and bookstores are available.					
7. The toilets are clean and sufficient.					
8. Reception halls or information centers are available.					
9. Air conditioners are available.					
10. Baggage services are available.					
Technology and innovations	2.374	0.803	8.741	0.003*	10.738
1. Still images and motion pictures are displayed via a projector.					
2. Electronic devices are provided for learning.					
3. Multimedia is used.					
4. Videos are displayed via a QR code.					
5. Augmented reality (AR) is used in presentations.					
6. Virtual reality is used in interactive technology.					
7. Artificial intelligence (AI) or robots are used to provide services.					
Constant	-31.510	5.699	30.568	0.000	0.000

Note. *a statistical significance level of 0.005

As depicted in Table 3, the results illustrate that four museum management factors significantly influenced Generation Y visitors’ decision-making to visit museums at a level of statistical significance of 0.05. These factors include activity factor ($p = 0.006, < 0.05$), interpretation factor ($p = 0.005, < 0.05$), facility factor ($p = 0.010, < 0.05$), and technology and innovation factor ($p = 0.003, < 0.05$).

Regarding the coefficients, facilities emerged as the most influential factor

($B = 2.579$), followed by interpretation ($B = 2.387$), technology and innovations ($B = 2.374$), and activities ($B = 2.087$). Furthermore, the odds ratios from Exp (B) for these factors were found to be above 1. It indicates that an increase in these factors will heighten Generation Y visitors’ likelihood of visiting museums. In particular, a 1-unit increase in activities will enhance the visiting likelihood by a factor of 8.060. Similarly, a 1-unit increase in interpretation by 1 will amplify the visiting likelihood by

a factor of 10.879, and a 1-unit increase in facilities will boost the visiting likelihood by a factor of 13.187. Lastly, a 1-unit increase in technology and innovations will escalate the likelihood of visiting by 10.738.

Conversely, the other factors, such as exhibitions, physical surroundings, staff, and public relations, did not exhibit a statistically significant influence on

Generation Y visitors' decision-making to visit museums at a level of 0.05.

The results pertaining to the hypotheses regarding museum management factors influencing Generation Y visitors' decision-making to visit museums are presented in the following table (Table 4).

Table 4
Hypothesis results

No. of hypothesis	Hypotheses regarding museum management factors	Results
H ₁	Exhibitions influence Generation Y visitors' decision-making to visit museums.	Rejected
H ₂	The physical surroundings influence Generation Y visitors' decision-making to visit museums.	Rejected
H ₃	Activities influence Generation Y visitors' decision-making to visit museums.	Accepted
H ₄	Staff or personnel influence Generation Y visitors' decision-making to visit museums.	Rejected
H ₅	Interpretation influences Generation Y visitors' decision-making to visit museums.	Accepted
H ₆	Public relations influence Generation Y visitors' decision-making to visit museums.	Rejected
H ₇	Facilities influence Generation Y visitors' decision-making to visit museums.	Accepted
H ₈	Technology and innovations influence Generation Y visitors' decision-making to visit museums.	Accepted

DISCUSSION

The results demonstrate that factors such as facilities, interpretation, technology and innovations, and activities have a significant influence on Generation Y visitors' decision-making when visiting museums. These factors hold significant importance in current museum management.

Facilities

The findings align with the research conducted by Mey and Mohamed (2010) on museum management in Malaysia, which revealed that facilities significantly shape visitors' perceptions, satisfaction levels, intention to spread positive word-of-mouth, and decision to revisit. Notably, facilities

like Wi-Fi, restaurants, cafés, and libraries exhibited strong positive correlations with the choices of young visitors to visit museums, as supported by Manna and Palumbo's study (2018). Additionally, Chomchoei (2014) demonstrated that this trend can be attributed to the preferences of the new generation of visitors, including Generation Y, who seek educational experiences, relaxation, and comfort during their journey. Consequently, the availability of such facilities in museums enables them to feel at ease and spend quality time exploring these cultural institutions.

Interpretation

The findings regarding interpretation align with the study by Kieanwatana (2009), noting that interpretation can significantly influence visitors' decisions to visit museums. Specifically, the use of modern technology for interpretation efficiently stimulates the interest of the new generation of visitors. Similarly, Kanokmongkol (2010) indicated that employing videos and multimedia in interpretation could spark visitors' interest and enhance their museum experience, as these media promote interaction and participation within museums, as noted in the study by Janchoungchot (2014). On the other hand, the study conducted by Jaikrajarn et al. (2014) focused on interpretation through people's stories and experiences, which provide a high-touch approach, considered more significant than high-tech approaches. Nevertheless, any interpretation is regarded as a type of communication that can influence visitors'

decisions to visit museums (Department of Tourism, 2015).

Technology and Innovations

Regarding technology and innovations, our findings align with the research conducted by Pluemsamrungsit and Wilaikum (2018), affirming that integrating technology and innovations in museums is a crucial approach to 21st-century museum development. This integration can promote a better image of museums and significantly attract visitors to explore these institutions. Moreover, Nukrongsin (2016) highlighted that influencing visitors' decisions to visit museums and providing them with knowledge and pleasure involves seamlessly integrating modern multimedia technology, such as digital media, multimedia, AR, and VR, into presentations. The studies conducted by He et al. (2018) and Pluemsamrungsit and Wilaikum (2018) further emphasized that this integration allows visitors to actively engage and interact with the content, significantly enhancing their overall museum experience.

Activities

Regarding activities, the results align with Manna and Palumbo (2018), who asserted that engaging activities could attract young museum visitors. Specifically, enjoyable activities that encourage interaction and active participation are particularly effective in attracting Generation Y visitors (Barron & Leask, 2017).

Furthermore, the results emphasize that exhibitions, the physical surroundings, staff

or personnel, and public relations did not influence Generation Y visitors' decision-making to visit museums.

Exhibitions

This finding differs from previous studies in this field. The result regarding exhibitions is not consistent with Kieanwatana (2009), which indicated that exhibitions influenced young Thai people's decision to visit museums. This difference can be explained by the exhibition management of Thailand's museums failing to respond to the needs of Generation Y visitors. Government-operated museums still host obsolete exhibitions with repetitive and uninteresting content, thus causing visitors to decide not to visit or revisit them (Chawsamun, 2014).

Physical Surroundings

The finding regarding the physical surroundings disagrees with studies by Chomchoei (2014), Gilmore and Rentschler (2002), and Su and Teng (2018), which found that the physical surroundings affect visitors' decisions to visit. One possible explanation for this phenomenon may be that this particular factor is associated with marketing and the provision of services or products in museums to visitors. Elements such as location, decoration, architectural structure, lighting, and tour routes are of great importance for education, access, communication, and the overall service quality of museums. However, whether the physical features can attract visitors to visit museums ultimately depends on museums' management (Ongkrutraksa, 2001).

Staff

Regarding staff or personnel, the finding contrasts with Mey and Mohamed (2010), whose results revealed that staff or personnel were related to tourist services, influencing visitors' perception, satisfaction, word-of-mouth intention, and revisiting decisions. Similarly, the study of Pluemsamrunit and Wilaikum (2018) suggests that staff or personnel are a crucial factor in the development of museums in the 21st century and influence visitors' decision-making by delivering satisfaction and impressions to visitors. One possible reason for this conflicting finding may be that this study focused on Generation Y visitors, who value freedom, assertiveness, and self-driven learning experiences (Tapscott, 2009; Tourism Authority of Thailand, 2017). Consequently, staff-related factors did not influence Generation Y visitors' decision-making to visit museums.

Public Relations

Despite these differences, the finding regarding public relations aligns with the study conducted by Angelika (2015) on the role of social media in Generation Y visitors' travel decision-making. These visitors trusted word-of-mouth over advertising and public relations. In particular, word-of-mouth from friends, family, or acquaintances can influence visitors' decisions to visit; this information, coming from individuals with real experiences, is credible to visitors (Moreno-Gil & Ritchie, 2017). Contrary to this finding, the studies of Chomchoei (2014) and Yiamjanya (2012) on general

visitors found that public relations served as a crucial factor in supplying visitors with news about museums and cultivating positive attitudes, thus influencing their decisions to visit museums.

CONCLUSION AND RECOMMENDATION

The study's results build the insights to provide actionable recommendations and significant implications for museum management, specifically directed at engaging Generation Y visitors effectively. The key recommendations encompass strategic enhancements in facilities, interpretation methods, integration of technology and innovations, and the design of interactive activities, all tailored to the preferences and expectations of Generation Y.

In terms of facilities enhancement, museums should prioritize enhancing facilities to cater to the evolving preferences of Generation Y. Incorporating personalized amenities such as Wi-Fi, restaurants, charging stations, cozy seating, modern cafés, snack areas, and libraries can significantly enhance their overall museum experience. Museums can attract more young visitors by creating an environment that promotes both learning and relaxation. To access information, digital signages or mobile apps should provide real-time information about exhibits and events and interactive maps for easier navigation within the museum premises.

With regard to innovative interpretation methods to capture the interest of Generation

Y, museums should leverage modern technology for interpretation. Utilizing multimedia, videos, augmented reality, and interactive displays can make museum visits more engaging and informative. The integrated interactive digital display and multimedia presentation can augment traditional interpretation methods and capture the attention of tech-savvy Generation Y. Incorporating diverse and interactive interpretation methods can contribute to a more enjoyable and educational experience. To engage storytelling, storytelling techniques, including personal narratives and experiences, can be utilized to connect emotionally with them and make exhibits more relatable and engaging.

To effectively leverage technology and innovations, museums should integrate modern multimedia technologies, such as digital media, AR, and VR, into museum exhibits to offer a dynamic and interactive learning experience. This technology-driven approach aligns with the expectations of Generation Y and can attract more tech-savvy visitors to museums. Technology and innovation can create virtual tour options using VR technology, enabling online visitors to explore the museum virtually and pique their interest for an in-person visit or leverage social media platforms for live streaming events, interactive Q&A sessions with curators, and online contests to involve a wider audience and create a sense of community.

To facilitate interactive activities, designing engaging experiences within museums, such as hands-on workshops,

live demonstrations, or do-it-yourself (DIY) activities, is essential to attract Generation Y visitors. Creating opportunities for interaction and participation through enjoyable activities can enhance the appeal of museum visits for this demographic. Museums should regularly update and diversify their activity offerings to keep visitors engaged and coming back.

In conclusion, these recommendations underscore the importance of adapting museum strategies to meet the unique preferences of Generation Y. By embracing innovative technologies, enhancing facilities, and crafting interactive experiences; museums can position themselves as attractive destinations for this digitally savvy and experientially oriented demographic. The study sheds light on critical factors influencing Generation Y's decision-making in visiting museums, encompassing facilities, interpretation, technology and innovations, and engaging activities. These insights have significant implications for museum management to optimize the museum experience for this demographic.

Implication of Study

In terms of policy implications, the policymakers should consider formulating guidelines that encourage museums to upgrade their facilities in line with the preferences of Generation Y. Financial incentives or grants could be allocated to museums that prioritize the integration of modern amenities, such as Wi-Fi, interactive exhibits, and relaxation spaces.

It would contribute to creating visitor-friendly environments, fostering increased engagement and satisfaction.

For practical implications, museum administrators should focus on redesigning museum spaces to align with contemporary expectations. Investing in user-friendly technology for interpretation and providing accessible online platforms for virtual tours and educational content can significantly enhance the museum experience for Generation Y. Additionally, fostering collaborations with local restaurants or cafes to provide diverse culinary experiences within the museum premises could further augment visitor satisfaction.

Museums nowadays are more accountable and accessible to the public, particularly to younger generations, as they provide better education, more affluence, and a more enriching experience for visitors and preservation. One of the key success factors is working with special target groups, delineating significant and essential museum management factors that affect the decision to visit museums. The results can bridge the gap between museums and insights into demand from Generation Y visitors. Even though the number of history and archaeology museums in Thailand have served and attracted visitors, they have been in the old and traditional paradigm, lacking interaction, innovation, or creativity. In the new era of the experience economy, the expectations and needs of visitors, especially Generation Y visitors, have changed. A study to gain insight into this target will provide significant data for creating new

experiences and improving existing ones in unprecedented ways. Recommendation from this study for museums to be successful in attracting Generation Y visitors should involve proactive strategies, such as offering diverse and creatively enjoyable activities to create an interactive atmosphere, adding value through comprehensive and innovative interpretation that suits this generation and enhances the visit experience, providing essential facilities to ensure a comfortable and convenient visit; and developing technology or innovation through multimedia.

Recommendations for Future Research

Future research should delve deeper into the nuanced preferences of Generation Y regarding specific types of technology, such as augmented reality, virtual reality, or interactive mobile applications. Understanding their inclinations towards these technologies can guide museums in tailoring their technological offerings to cater to the preferences and expectations of this demographic.

Furthermore, it is crucial to explore the impact of sociocultural factors on Generation Y's Museum visitation choices. Cultural background, social influences, and community engagement may significantly influence how Generation Y visitors perceive and engage with museums. Investigating these factors will provide valuable insights for designing culturally relevant exhibits and experiences that resonate with Generation Y's diverse backgrounds and values.

Such in-depth research can contribute to the effective integration of technology and cultural relevance in museums, enhancing the overall museum experience for Generation Y and ensuring museums' continued relevance and attractiveness in the contemporary digital age.

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Meanings Behind the Carving Motifs of Traditional Malay Houses

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ABSTRACT

Woodcarving motifs, including Negeri Sembilan, are significant in Malaysian art, bearing ancient knowledge and latent meanings. However, the understanding of Malay woodcarving motifs in Kuala Pilah is relatively limited compared to the east coast. The urgency to study these motifs intensifies as urbanization rapidly changes the landscape, representing not only woodcarvers' skills but also profound cultural symbolism. This paper aims to interpret the meanings within these motifs in traditional Malay houses in Kuala Pilah, employing qualitative methods such as observation, interviews, photographic records, and secondary data analysis alongside Ferdinand de Saussure's Semiotics Theory for analysis. The cultural and social significance embedded in these motifs is unveiled through signifier and signified analysis. The results revealed the presence of various motifs encompassing geometry, fauna, flora, and still life. The study also uncovered that each motif plays a pivotal role in conveying the cultural and social values of the Malay people in Negeri Sembilan and enhances our understanding of the traditional art form of woodcarving amidst contemporary transformations.

Keywords: Carvings, motifs, semiotics, symbols, traditional Malay houses

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INTRODUCTION

Malaysia is known to be affluent with its incomparable cultural diversity and wide and distinctive variety of traditions and heritages. The vernacular architecture and woodcarving motifs are composed of incorporated discipline, as Malays have respected them throughout the centuries. The old traditional woodcarving is reputed as one of Malay heritage's authentic and

complex art forms. Malay woodcarving is the amalgamation of skills and wisdom, and it has been inherently linked with the identity and worldview of the Malays since time immemorial. Therefore, it represents the artistic wisdom that signifies Malay art and philosophy. In conjunction with its knowledge, woodcarving is also a form of a visual element with a captivating narrative essence through its conscientious and detailed carvings. Apprenticeship in woodcarving is a mastery handed down from generation to generation. Unfortunately, many expert carvers have been unable to have the opportunity to transmit knowledge to younger generations because they are no longer interested in the upkeep of tradition. Hence, their craft is incapable of maintenance, which may lead to deteriorating outcomes sooner or later. At least, specific measures and awareness may provide insights to the public at large into appreciating woodcarving with extrinsic and intrinsic meanings.

Despite the significant research on the design and typology of traditional Malay houses in Negeri Sembilan, there is a noticeable gap in the current body of research regarding woodcarving motifs and their inherent symbolism within these houses. This gap becomes even more apparent when considering the extensive documentation of woodcarving research on the East Coast, as highlighted by Yusof et al. (2021). One area that has received limited attention is qualitative research to understand the symbolic significance of woodcarving motifs specific to Negeri

Sembilan. Therefore, the primary objective of this study is to provide a comprehensive interpretation of the meanings attributed to woodcarving motifs found within traditional Malay houses in Kuala Pilah, Negeri Sembilan, to bridge this research gap.

In exploring the realm of Malay woodcarving, it is essential to initially grasp the nuanced network of Malay dimensions that form the foundation of this artistic heritage. These dimensions, encompassing symbolic and pragmatic aspects, are intricately linked with the Malay community's surroundings, convictions, and heritage. Malay woodcarvings serve as more than just dimensions; they are windows into the essence of Malay life. By carefully selecting wood, calculating proportions, and incorporating culturally significant motifs, woodcarvers seamlessly weave their surroundings, spiritual beliefs, and cultural heritage into every chisel stroke, creating masterpieces that resonate with the soul of the Malay people. In most artworks, a motif is often identified as a recurring fragment, theme, or pattern that appears in a work of art. Traditional woodcarving is known as decorative art, as stated by Tohid et al. (2015). Ornamental art entails art adorned with ornamentation, most frequently seen in architecture and other art forms or objects such as pottery and furniture. The creations of woodcarving motifs were based on the woodcarvers' morals, ethics, and inspiration, which were enriched by their devotion to Allah SWT (Ab. Aziz, 2021). Due to their attention to detail, they can create precise carving details to produce a complex but

balanced design innately connected to their spiritual evocation emanating from the woodcarvings. Woodcarving is rare for proficiency as the younger generations are oblivious to the unique culture and identity of the vernacular architecture and woodcarving motifs. Such a skill is held only by a handful of experts and masters who have trained for many years on the air tangan (a Malay idiom that implies the result of one's hard work) of carving motifs.

LITERATURE REVIEW

An Overview History of Woodcarving

To gain comprehension of the concept of woodcarving motifs on traditional Malay houses in Negeri Sembilan, reviews of the history of woodcarving and its pedigrees are essential. Researchers and academicians in the past affirmed that traditional woodcarvings were conceived with the arrival of the Langkasuka Empire, cultivated, and further developed the Malays' cultural evolution (Said, 2019). Historically speaking, Hinduism was an influential catalyst for developing Malay civilization. Eventually, Hinduism had a socio-cultural impact on the Malay world, such as religion, beliefs, worldview, and literature, to name a few (Abd Rahman et al., 2021). Therefore, the Malay kingdom was compelled by the influential force of the Langkasuka empire.

During the Langkasuka empire, the Malay people established a strong belief in spirits and deities that dwell in all living things and nature. Most scholars regarded these natives as animists who believed in the

spirit world and nature (Rashidi et al., 2021). In tandem with this, the Hindu-Buddhism denomination affected the entire foundation and infrastructure of the Malay people's social culture. Malay woodcarvings were densely partial to Hinduism facets, formed prevalently of figural representations of their motifs (Yusof et al., 2021). Hence, before Islam came into the picture and entered Malaya's shores, motifs' patterns were laboriously ornamented with depictions of animals and figurative carvings.

According to Nasir (2016), historically, evidence showed that Arabs, Persians, and Indians brought over the religion of Islam. Eventually, the arrival of Islam helped shape the motifs to become more abstract and align with Islamic values and acceptance. Scholars believe that the progression of vernacular architecture and Malay woodcarvings expanded as early as the 14th century, dominantly in Southern Thailand and the northern part of the Peninsular (Said, 2019). Said (2019) also pointed out that in terms of geographical and historical aspects, the art of woodcarving and architectural vernacular in Peninsular Malaysia extended from the north of Pattani province in Thailand to the Johor region in the southern part. Thus, depending on which state it is, the significance of the woodcarvings is different in varying degrees, whereby they embody woodcarvers' and carpenters' meticulous observation of the universe's form, culture, nature, and beauty. To that degree, the art of woodcarving coalesces with the integrity of Malays' piety, philosophy, and virtues created in the Malay mindset.

Woodcarving: An Overview

Woodcarving is a centuries-old artistic practice that shapes and sculpts wood into various forms and designs. It is a craft that requires precision, creativity, and a deep understanding of the wood's properties. In Malay, woodcarving is translated to "ukiran," which is chiseled or carved on objects (Abidin et al., 2017). Sufiyya (2006) expounded that woodcarvings serve as ornamental components crafted to enhance the aesthetic appeal of an object. Malay woodcarving boasts a rich tapestry of motifs, each falling into one of five fundamental categories: flora, fauna, Arabic calligraphy, the cosmos, and intricate geometric patterns (Said & Abdullah, 2001). These motifs represent the beauty of nature, artistic calligraphy, cosmic mysteries, and intricate patterns, all serving as a canvas to express Malay culture and traditions. Historically, woodcarving has been used for both practical and artistic means. It has been applied to create functional items like furniture, architectural details, tools, and utensils. In Malaysia, woodcarvings are a prominent decorative art on palaces, mosques, surau (prayer houses), and traditional Malay homes (Hassan et al., 2016). At the same time, it has been a means of artistic expression, with carvers infusing their creations with symbolism, cultural motifs, and personal interpretations.

In summary, woodcarving can be termed an artistic practice involving various techniques and motifs. These are meticulously arranged following specific patterns and crafted with designated tools,

all executed on carefully chosen wood. The resulting wood carvings serve functional purposes while seamlessly incorporating aesthetic elements.

Woodcarving Techniques

A woodcarving is an art form that entails partially chiseling wood chunks from planks or boards to create a specific component of shapes, motifs, and patterns, as Said (2019) described. It has long been established among the Malay communities as it is recognized as an ancient art craft. The woodcarvings are similar to carvings on stones and metals due to their compositions. Notwithstanding the similarities, there are differences in the techniques applied to design the motifs on wood. Woodcarvers have continuously used two carving techniques: *ukiran kasar* (rough carving) and *ukiran halus* (intricate and fine carving; Said & Kamarudin, 2009). When it comes to *ukiran halus* or fine carving, it usually gravitates toward relief-type patterns, which can be commonly found on hilts of *keris* (short Malay daggers), frames of bed heads as well as cupboard tops (Nazuki & Kamarudin, 2017). On the other hand, *ukiran kasar* or rough carvings are typically carved on much larger and bigger objects such as pillars, windows, roof eaves, gables, items of furniture, and *tebar layar* or partition panels (walls and doors; Nazuki & Kamarudin, 2017).

Regarding the incision and perforation techniques, there are three types: direct piercing (*tebuk tembus*), semi-piercing (*tebuk separuh*), and embossed-relief piercing (*tebuk timbul*; Nasir, 2016; Noor &

Khoo, 2003). Firstly, direct piercing involves carving or piercing the wood directly to create hollowed-out areas or negative spaces within the wood. It usually functions as an air passage and lighting to certain spaces, primarily found in traditional Malay houses such as window heads or door heads. Secondly, the semi-piercing technique does not produce negative spaces but highlights the beauty of the wood surface that can be found, for example, mosque signs and *rehal* (book rest for Quran). Finally, woodcarvers carve designs into the wood's surface for embossed relief piercing, creating raised patterns or motifs. This technique gives the illusion of the carving protruding from the wood, providing a tactile and appealing texture (Silah et al., 2021). Forming the carvings takes great skill and principle to make precise incisions to create fine details. Careful thought is taken into consideration to ensure the carvings are well-intact and become a complete whole with purpose and meaning. Wallschlaeger and Busic-Snyder (1992, as cited by Kamarudin & Said, 2008) described the principle of visual organization to fabricate the relationship within the art form must require three things, which are "form, the compositional elements, and the intended meaning" (p. 103), and these three elements are consistently reflected in Malay woodcarvings.

Traditional Malay Houses in Negeri Sembilan

A study by Kamal et al. (2004) described a traditional Malay house as a distinctive architectural wonder characterized by its

structural timber composition elevated on stilts. Masri (2012) echoed a similar perspective in her study, which conveyed that traditional Malay houses in Negeri Sembilan are fundamentally built on stilts supported by high flooring, walls, and a roof, all complemented by a flight of stairs. Nor and Shahminan (2016) pointed out that within the Old Community, constructing buildings on stilts had evolved from a historical necessity into an integral aspect of their identity. Its construction employs a framework of posts and lintels encompassed by bamboo or wooden walls. Their exposition extends to the fact that these houses were strategically situated within expansive compounds to spotlight the Malays' ingenious craftsmanship and harmoniously align with their environmental, socio-economic, and cultural prerequisites. The construction techniques underlying the creation of traditional Malay houses were founded on a foundational design that allows remarkable adaptability. This aspect enables extensions to the house to be effortlessly integrated whenever the need arises.

In Negeri Sembilan, the design of the rooftop serves as a key reflection of a house's character. As multiple researchers have noted, there has been a misunderstanding surrounding the rooftop design of present traditional Malay houses. The commonly assumed representation of buffalo horns in the rooftop's shape, known as "atap," is derived from Riau's visual portrayal of the Lancang, a traditional boat (Masri, 2018). This confusion is understandable due to the cultural influence of Minangkabau

customs and traditions on Negeri Sembilan's society. Traditional houses in Minangkabau typically feature a more pronounced curving rooftop resembling buffalo horns, known as "tanduk kerbau" (Masri, 2018). In the past, the houses in Negeri Sembilan were even identified as Minangkabau houses. However, a study by Shahminan (2007) revealed that these traditional houses are now more commonly recognized as "Rumah Bumbung Panjang Negeri Sembilan" (Negeri Sembilan's long-roofed houses). This transformation underscores that despite their Minangkabau origins, the people of Negeri Sembilan have gradually forged their distinct Malay identity over time.

Aesthetic Configuration in Malay Woodcarving

Jamal's (1992) philosophy on the beauty of Malay art is that what makes Malay art truly exceptional is the way the art has tapped into the creation of the soul. They are interpreted through dreams, aspirations, and sensations while envisaging humanity's harmony with nature. It is impossible to separate the factors of nature and humans as they are faithfully interlinked, creating a synthesis of a harmonious balance between the two. For many years, humans and nature have coexisted with each other. Respectively, when such respect is given, one can provide for the other, as this unspoken bond is metaphysical. In conjunction with woodcarving motifs, Malay woodcarvers and carpenters are given the absolute liberty to convey their feelings, imaginations, and observations of the universe surrounding

them, unravel and create the physical beauty of the universal realm, and manifest that into intricate motifs. The imparted wisdom they have made for the motifs shows the surface of their admiration towards their culture, upbringing, nature, and last but not least, The Mighty Allah SWT. Many traditional Malay houses exhibit simplification and even complex floral motifs since nature is regarded as a definitive element that remains evergreen and ceaseless. Each house is distinctive with floral motifs as they are products that depict florals and foliage that can be acquired in the vicinity. The motifs' visual designs are the by-products sourced from intertwining plants such as flowers, seeds, leaves, and buds.

Furthermore, the visuals of the woodcarving motifs are merely attributes of Malay philosophy and cultural values, indicating that humankind comes from the main true source, Allah SWT. Basaree and Silah (2013) asserted that the designs of the Malay motifs resulted from a gradual alteration or denaturalization of nature in art: the reason for this is to conform to the rules of suitability in producing patterns emphasizing the Malay people's concept of beauty and societal norms. In addition, the carved motifs on traditional Malay houses serve aesthetic and ornamental reasons and provide functionality with different purposes depending on where the designs are placed and carved (Yusof et al., 2021). The beauty principles founded by Ali (1989) highlighted that six aesthetic principles can be found in Malay art: unity, functionality, contrast, refinement, symbolism, and

meaningfulness. Firstly, unity in visual art means blending form and content for clear communication and storytelling. Secondly, functionality refers to the practical or utilitarian aspects of an artwork or design, and it is the extent to which a visual creation serves a specific purpose beyond its aesthetic or artistic qualities. Thirdly, contrast encourages harmonious distinction by blending opposing elements for balance, flexibility, and aesthetic enhancement in art. Fourthly, refinement denotes refined sensitivity coupled with artistic insight and sensibility. Fifthly, symbolism pertains to the use of symbolic representation within art. In forms like woodcarving and architecture, the form and content convey deep symbolic meanings rooted in history, culture, and archetypal beliefs. Finally, meaningfulness signifies the conveyance of hidden, spiritually rooted insights into the profound truth of existence.

The principles mentioned above emulate the sophisticated knowledge and virtues of the Malay-centric worldview that is mirrored in the woodcarvings. The intricate expressions of refinement and artistry vividly showcase the deeply rooted socio-cultural values of the Malay community, seamlessly interwoven with the teachings of Islam. Thus, it is essential to note that it is part of their identity to reflect their sensitivity toward the concept of humility since, in Islam, Allah has fabricated the grandeur of nature to be above everything else, to show His creation to His fellow humanity (Kadir et al., 2018). Therefore, the woodcarvers and homeowners can

only abide by the rules of Islamic values by displaying the physical impressions of splendor and are encouraged to openly show these people's innate intellectuality in the form of woodcarving motifs.

METHODOLOGY

This study uses visual analysis to interpret the woodcarving motifs in the chosen samplings. This study was conducted using a qualitative method and consisted of two data types: primary and secondary. The qualitative method was suitable for this study because it seeks to infer why people have thoughts and feelings that could affect their behavior. Various methods through primary data were implemented to collect relevant data. Observations, site visits, photographic documentation, and semi-structured interviews were conducted to obtain saturated findings.

In 2021, the researchers visited Kuala Pilah, where on-site observations were conducted. During these visits, the researchers collected longitudinal data samples to document the woodcarving motifs in the selected houses and augmented the findings through photographic documentation. The selected houses for this study are Rumah Zuriati bte. Husain and Rumah Tok Su Pangkin Nyai Seni. The criterion for choosing these samplings is to ensure that these houses still consist of woodcarving motifs, are still occupied by house owners, are still in well-kept condition, and can be found in the interior or exterior part of the house to align with the objective of this study. Interviews with the residents

were conducted to obtain information such as their names, the addresses of their homes, and the estimated years the houses were built for documentation purposes. Rumah Zuriati was built between the 1890s and 1900s, while Rumah Tok Su was built in the 1720s. An instrument that played a key role in the observation phase to collect necessary findings in terms of the architectural structure and woodcarvings is a camera for photographic records and to identify where the woodcarvings are placed from different angles of the houses.

The photographs of the woodcarvings were digitized, cataloged, and further illustrated into 2D black and white vector images of single-line patterns with the use of Adobe Illustrator. The method of vectorizing the data into 2D images facilitates the researchers' use of visual pattern analysis from collected pictorial data. The illustrations were classified into distinct categories based on the pattern and theme labeled. The 2D black and white vectors were used to seek verification from interviewees through semi-structured interviews to help identify the motifs found on the two selected houses.

The interviews were done through Google Meet as this study was carried out when the Movement Control Order (MCO) was enforced in 2021. Hence, the interviews had to be done through virtual meetings via Google Meet. The informant(s) are Norhaiza Noordin from Terengganu, who is a well-known and skilled woodcarver who has been practicing woodcarving at an early age under the guidance of the late

Nik Rashiddin Nik Hussein, and another local and expert woodcarver named Ibrahim Abdul Latiff from Kuala Pilah, Negeri Sembilan who is a senior supervisor at Istana Besar Seri Menanti. The researchers employed semi-structured interviews with a pre-determined set of questions but also allowed interviewees to further add information in terms of identification and meanings of the motifs. Respectively, the two informants helped to verify and validate the data obtained from the site visits. They also facilitated deciphering the motifs and provided knowledge concerning the Malay philosophy of woodcarvings found in the two houses. Moreover, within the construction site of conversations with the woodcarvers, tacit knowledge takes shape, facilitating its transformation into tangible insights that propel the advancement of expertise in this domain (Toom, 2012). Additionally, using qualitative methods further empowers the researchers to delve deeper into the intricacies of personal experiences, enriching the researchers' comprehension within this field (Creswell & Clark, 2018). Therefore, this study acquired information through the woodcarvers' knowledge through interviews to retrieve relevant data regarding philosophical and socio-cultural aspects of the Malay community. Through a series of interviews, information was garnered, meticulously recorded, transcribed, and systematically analyzed. This process not only preserved the invaluable insights shared by the interviewees but also enabled the extraction of pertinent data, revealing discernible

themes linked to the identified motifs. In addition to direct observation and in-depth interviews, the research drew upon secondary data sources, such as pertinent journals and books delving into symbolism, to fortify the research findings and enhance the depth of information gathered.

Saussure's Theoretical Approach to Research

Semiotics is a field of study that deals with symbols and signs and their significance in society. Semiotics explores the relationship between a signifier, which can be a word, image, or object. On the other hand, the signified refers to the abstract idea it represents, which is perceived by interpreters and influenced by the denotations and connotations of the sign. Many scholars, researchers, and authors have explored and defined semiotics, including the renowned Ferdinand de Saussure, Charles Sanders Peirce, Roman Jakobson, Charles Morris, Roland Barthes, and Umberto Eco. Yakin and Totu (2014) defined semiotics as epistemologically, the study of the actuality of signs in societal life. A study by Abdullah and Abdillah (2021) clarified that semiotics embody a visual symbolism accessible to the human eye. Additionally, semiotics is like a symbol-rich field that reflects how each person understands and uses their knowledge.

Eco's (1976) book "A Theory of Semiotics" proposed that semiotics is a discipline that encompasses all possible signs that can be interpreted and understood. It includes all semiotic narratives that can

be constructed from signs. C.S. Peirce's book *Selected Writings* described semiosis as the relationship between a sign, an object, and a meaning (Buchler, 2014). Hashim et al. (2018) explained symbols as messages conveyed through representation typically associated with something people recognize. Humans associate symbols with their daily experiences, as symbols and their meanings are closely connected. Eco (1980) suggested that symbols on buildings have been present ever since the introduction of human understanding of architecture. It implies that woodcarving motifs on buildings such as mosques and traditional houses have existed for centuries, providing specific cultural values to specific communities. To boot, woodcarving motifs have served as a dynamic medium for expressing a diverse array of concepts and messages. Within the Malay community, using semiotics through visual woodcarving motifs becomes a means to communicate their philosophies and lifestyles. This practice resonates with Saussure's notion that a sign amalgamates an object with an image, underscoring the significance of the interplay between the signifier and the signified. The employment of signifiers and signified within woodcarving motifs mirrors the cultural ethos within the Malay community, as these motifs stand as cultural emblems of paramount importance and meaning to the Malay people.

Table 1 is a comprehensive overview of the analytical tools employed by the researchers in their study, carefully selected from Saussure's semiotic theory.

Table 1
Saussure's tools of analysis for this study

No.	Tools of analysis by Ferdinand de Saussure
1	Sign: Anything that conveys a meaning
2	Signifier: Sign's physical form or things that give meaning (a word or image)
3	Signified: The meaning or idea expressed by a sign and evoked in the mind (mental concept)

Saussure's approach was deemed the most fitting for the task at hand, as it provided the ideal framework for unraveling and interpreting the meanings embedded within the woodcarvings, given its primary focus on studying signs and symbols. A symbol is a type of sign, and it is a representation of an idea, concept, or object that carries meaning through association, convention, or agreed-upon cultural significance (Ibrahim & Sulaiman, 2020). Within this theoretical framework, three pivotal elements—namely, the sign, signifier, and signified—proved instrumental in enhancing the researchers' grasp of the symbolic significance at play. At its core, a sign is a fusion of a tangible, material form and an abstract mental concept. The signifier encompasses the material aspects or markers, exemplified by the identifiable woodcarving motifs meticulously selected for analysis in this context. Conversely, the signified encapsulates the realm of meaning or the mental concept linked to a particular sign. Alternatively, one could consider the signified as the essence, concept, or meaning associated with the signifier. When discussing visual elements, patterns such as woodcarving motifs can become symbols when they acquire specific cultural

or societal implications. Therefore, when the researchers analyze the motifs, cultural context is analyzed in tandem to help establish relevance to understanding how a symbol fits the specific culture's belief system or social practices, which is crucial for proving its symbolic meaning.

By delving deeper into the woodcarving motifs, their signified dimension encapsulates cultural attributes and Malay philosophies deeply ingrained within the Malay community's collective consciousness because the signified layer of these motifs draws from the language of communication, Malay customs, and enduring values. Saussure aptly illustrated that sign systems are not mere abstractions but integral elements of the real world, fundamentally contributing to constructing the perception of reality (Yakin & Totu, 2014). This concept is epitomized by the interplay between the signifier and the signified, a connection Saussure termed 'signification.' By unraveling the signification within the woodcarving motifs, the researchers gained insight into symbolism's crucial role as a descriptive and visual communication tool when viewers observe these motifs. Drawing on Peirce's semiotic framework, he categorized signs into three distinct

classes: index, icon, and symbol (Buchler, 2014). Symbols are inherently subjective, guided by convention and cultural context. In the case of the woodcarving motifs under examination, they align most closely with symbols, given their connection to signs and meanings. Thus, the motifs are emblematic of how symbols serve as vital conduits for conveying cultural nuances and insights to those who engage with them visually.

RESULTS AND DISCUSSION

The researchers explicitly collected and chose Kuala Pilah houses in Negeri Sembilan. The houses consisted of woodcarving motifs while maintaining the architectural state of a traditional Malay house. The selection of these houses for data collection is shown in Table 2. Moreover, they align with the

objective of this research, which is to interpret the meanings of the woodcarving motifs. The motifs identified on the houses encompass geometry, fauna, and still life.

In Rumah Zuriati’s house, four figures depict various motifs discovered within the architecture. Figure 1 illustrates the front view of the bargeboard, adorned with geometric patterns such as circles, semi-circles, and triangles. Moving to Figure 2, motifs on the front view of the gable ends feature ovals and diamond shapes. On the side view of the fascia board, as shown in Figure 3, fauna motifs such as hanging bats (*kelawar bergantung*) are displayed. Lastly, Figure 4 highlights the rearview motif of the sky pointer, also known as *tunjuk langit*, characterized by its rounded shape design.

Table 2
Selected houses

No.	Homeowner	Year	Location
1.	Zuriati Bte. Husain	1890-1900s	Kampung Tanjung Beringin
2.	Tok Su Pangkin Nyai Seni	1720s	Kampung Parit Seberang, Kuala Pilah

Meanwhile, Rumah Tok Su Pangkin Nyai Seni’s house presents another set of four figures illustrating discovered motifs. Figure 5 displays the front view of window rails adorned with geometric patterns, including ovals, cylinders, and rectangles. In Figure 6, the roof rafter at the porch’s front view features a symmetrical motif of *naga berjuang* (fighting dragons).

Figure 7 exhibits the front view part of the door head in the *serambi* (main room) area, adorned with the *awan larat* motif, which incorporates florals such as *bunga ketumbit* and *daun ketumbit*. Lastly, Figure 8 illustrates floral motifs on the front view of the gable end, presenting four broken flowers (*bunga pecah empat*).

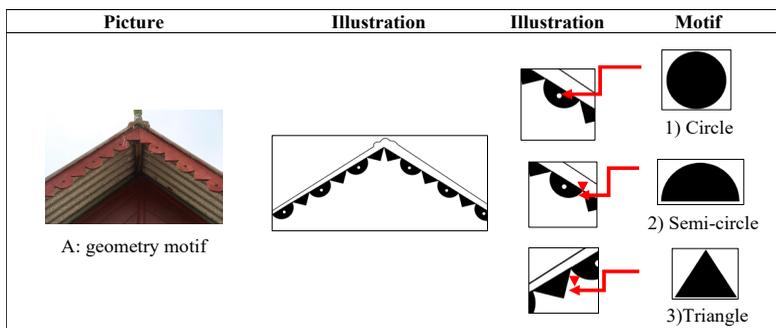


Figure 1. Front view: bargeboard (*papan layang*)

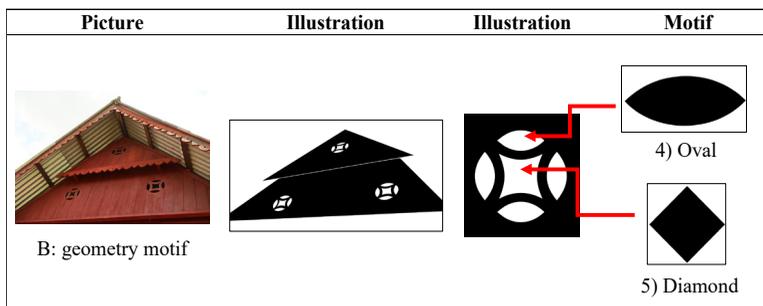


Figure 2. Front view: gable ends (*tebar layar*)

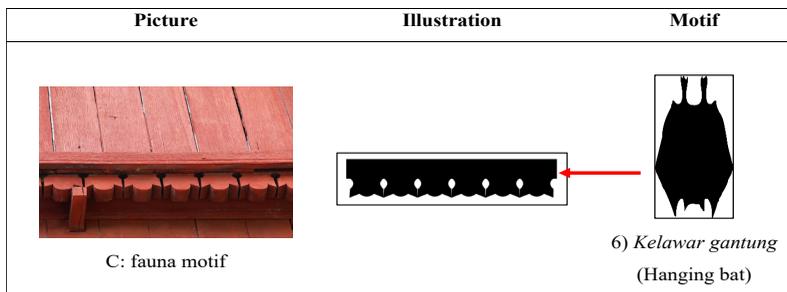


Figure 3. Side view: fascia board (*papan manis*)

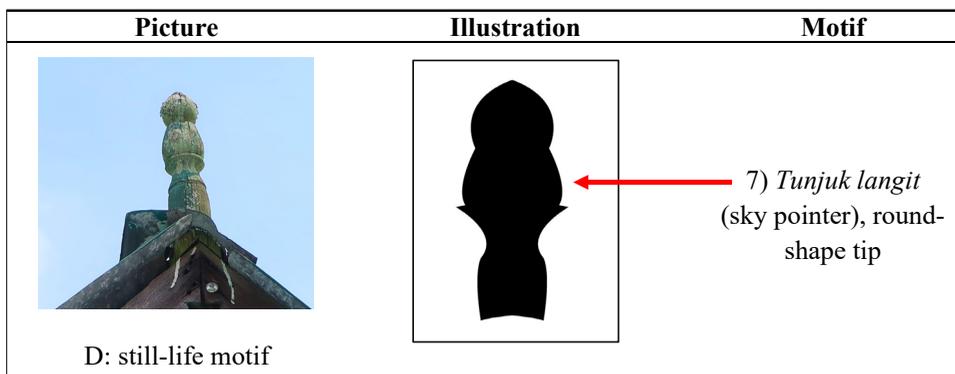


Figure 4. Rearview: king post

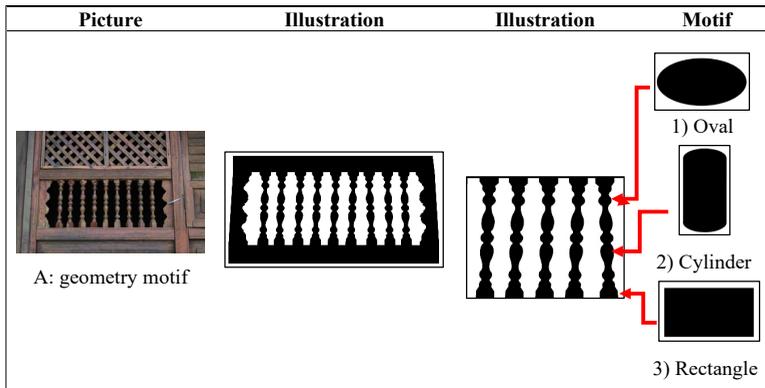


Figure 5. Front view: window rails (*kisi-kisi*)

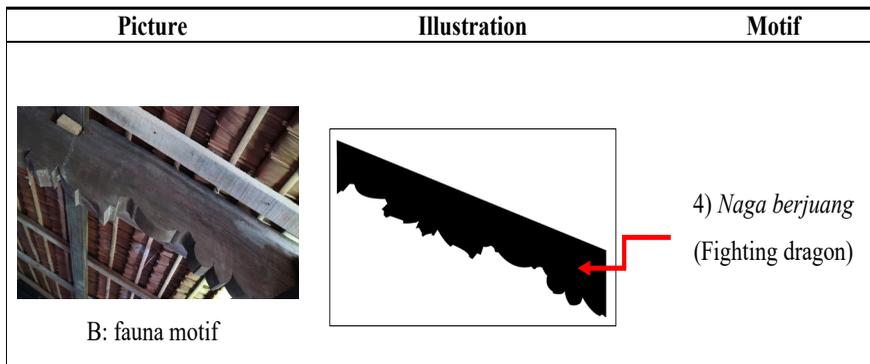


Figure 6. Front view: porch, rafter (*kasau*)

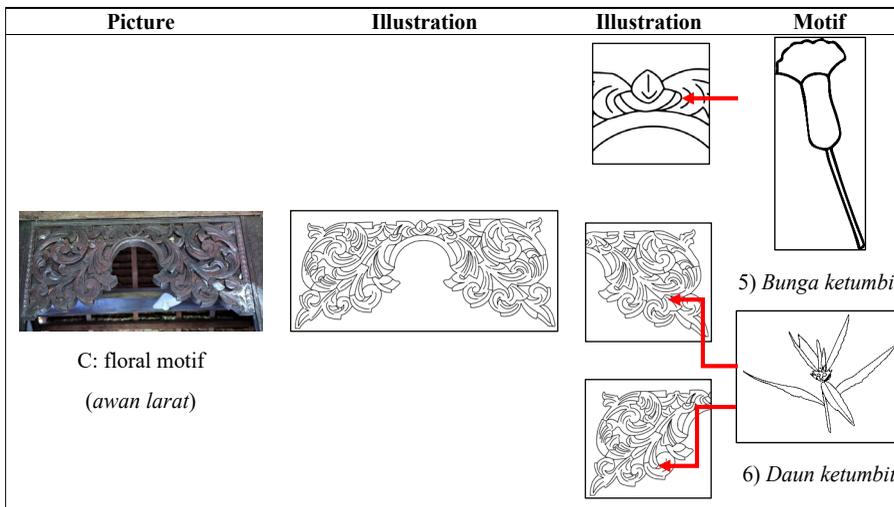


Figure 7. Front view: door head (*kepala pintu*) in the interior

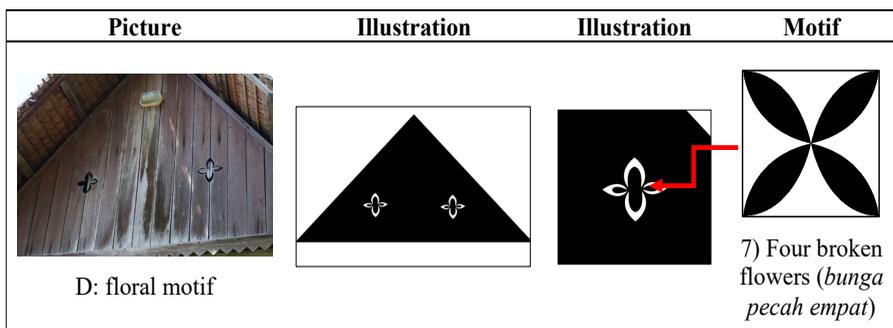


Figure 8. Front view: gable end (*tebar layar*)

Table 3 shows the descriptions of the meanings of the woodcarving motifs identified on Rumah Zuriati Bte. Husain and Rumah Tok Su Pangkin Nyai Seni's houses with the application of Ferdinand de Saussure's theory of semiotics. The detailed descriptions of the meanings were referenced from published sources such as books and journals, and analyses obtained

from the interviews to support the findings of meanings. The woodcarving motifs were decoded using any material or physical form that signifies, and a signified is a concept that a signifier refers to. Together, the signifier and signified make up the symbols of the woodcarving motifs that have been identified.

Table 3
Geometry motifs

No.	Signifier	Signified
1.	Circle	The circle is a universal symbol that represents the notions of totality, wholeness, original perfection, idealism, the sense of self, the infinite, eternity, timelessness, all cyclic movement, and God is a circle whose center is everywhere, and whose circumference is nowhere (Ibrahim et al., 2023). Based on the researchers, a circle can symbolize completion and closure. When a circle represents a task or a phrase of life, it suggests that something has come full circle or reached its conclusion.
2.	Semi-circle	The semi-circle has its symbolic significance in Islamic culture. The crescent moon, essentially a semi-circle, is often associated with the lunar calendar, marking the beginning of Islamic months such as Ramadan and Eid. Interviewee I. A. Latiff (personal communication, June 20, 2021) illuminated that the semi-circle is usually used as a <i>gunungan</i> motif on doorways but can also be found on <i>papan manis</i> . According to the researchers, a semi-circle symbolizes the state of mind of consciousness. The human mind often operates cyclically, transitioning between states of consciousness and unconsciousness, as well as alternating between periods of awareness and non-awareness. This pattern occurs regularly during the day and night. Throughout the daytime, individuals exhibit a state of mindfulness, awareness, and wakefulness, which can be attributed to the functioning of two distinct cognitive hemispheres (Migueis et al., 2021).

Table 3 (Continue)

No.	Signifier	Signified
3.	Triangle	The equilateral triangle, with its three equal sides, can symbolize balance and harmony in consciousness. It can suggest an equilibrium between opposing forces or aspects of the self. Based on the researchers, it sometimes resembles the shape of a bamboo shoot or <i>tumpal</i> motif, which is considered to be a symbol of fertility. Triangles can be associated with the appearance of bamboo shoots, mountains, or banyan trees and stupa, which is the appearance of many shapes found in the traditional design of the Malay community and the traditional cosmological iconography of the Malay Archipelago (Zakaria et al., 2018). Typically, it reflects the concept of Malayness or regionalism.
4.	Oval	As per the research findings, the oval shape, akin to a circle, represents a sense of wholeness and unity. Its elongated form signifies inclusivity and openness, symbolizing the importance of embracing diversity and recognizing the uniqueness of each individual's thoughts and ideas. This emphasis on diversity aligns with the concept that rounded shapes, like ovals and circles, evoke positive emotions, eliciting a deeply emotional response. The inherent completeness and graceful curves of ovals are particularly relevant in the context of Islamic woodcarving motifs. Islam, as a religion, is often seen as a holistic and complete way of life. Its messages are imbued with grace and harmony, reminding people to coexist harmoniously with one another (Silah et al., 2021). In this light, the symbolism of the oval shape mirrors the teachings of Islam, emphasizing the importance of unity, grace, and the integration of diverse perspectives within the Muslim community.
5.	Diamond	In Islamic culture, the diamond can represent purity and clarity of heart and intention. It signifies the idea of maintaining a clear and virtuous heart while navigating life's challenges. The diamond's multifaceted nature may be seen as a metaphor for spiritual growth and development (Zakaria et al., 2018). The diamond shape can signify an individual's ability to withstand challenges and pressure, emerging stronger and more polished.
6.	Cylinder	According to the researchers, from an Islamic perspective, the cylinder, a three-dimensional geometric shape, holds a profound symbolism as a spiritual ascent. Within the sacred architecture of mosques, the act of ascending a cylindrical minaret or dome serves as a powerful metaphor for the believer's journey toward God, a spiritual ascent that signifies the pursuit of higher consciousness, found in a similar study by Mahmud et al. (2021). As one climbs upward, they symbolically ascend towards a deeper connection with the Divine. Additionally, this cylindrical form beautifully mirrors the concept of growth and development, which is highly valued in the Malay community. Just as each section of the cylinder represents a distinct stage of personal development, constant reminders of growth and self-improvement are essential for the well-being of individuals and the entire community (Kamarudin et al., 2020). This perspective emphasizes that personal growth contributes to well-being and the collective welfare of the Malay community.

Table 4
Fauna motifs

No.	Signifier	Signified
1.	<i>Naga berjuang</i> (Fighting dragon)	The term 'naga berjuang' is personified as powerful and mystical creatures with benevolent and malevolent attributes. This characterization is consistent with the findings of Badaruddin et al. (2020) and Jaffar et al. (2017). The term 'naga' has its etymological origins in the Malay word for 'dragon' and is frequently used in Southeast Asian literature to describe mythical beings imbued with celestial power (Eslit, 2023). According to the researchers, the cultural belief in dragons in the Malay Archipelago precedes the introduction of Hindu-Buddhism influence. Following the establishment of Hindu-Buddhist kingdoms and the subsequent arrival of Islam, the local population continued to evolve the depiction of the dragon, incorporating religious and cultural beliefs into its representation (Sanusi & Legino, 2015).
2.	<i>Kelawar gantung</i> (Hanging bat)	Bats are primarily nocturnal creatures known for their echolocation abilities. Researchers have drawn parallels between these animals and the symbolism of good luck and prosperity. Bats' exceptional skill in navigating through the darkness serves as a metaphor for triumphing over life's challenges and forging a path even in the most adverse circumstances. Moreover, bats exhibit qualities of wisdom and fairmindedness, characteristics that resonate with the values deeply ingrained in Malay culture (Ab. Aziz, 2018).

Table 5
Floral motifs

No.	Signifier	Signified
1.	<i>Bunga pecah empat</i> (four broken flowers)	<i>Bunga pecah empat</i> motifs are commonly found in traditional Malay houses. Its scientific name is <i>Ixora coccinea</i> , and it is from the <i>Rubiaceae</i> family. According to A. A. Aziz (2018), the <i>bunga pecah empat</i> does not refer to flowers of any specific kind of flower. The <i>bunga pecah empat</i> is characterized by its representation of abstract floral structures consisting of four petals, signifying simplicity and equilibrium, as elucidated in a study conducted by Redzuan et al. (2022). The authors explained that the <i>bunga pecah empat</i> holds a distinct place as a floral emblem in the Malay community. Within Malaysia, specific four-petal flowers may hold cultural or traditional significance, and their symbolism can be tied to local customs and beliefs. According to Hamdan (1998), <i>bunga pecah empat</i> is a traditional Malay symbol encompassing four cosmological elements: earth, fire, wind, and air. Similar to findings by Ab. Aziz (2018), in Malay medicine, the four elements require balance in the natural order of things as they are made from these four components.

Table 5 (Continue)

No.	Signifier	Signified
2.	<i>Bunga ketumbit</i> and <i>daun ketumbit</i>	<i>Bunga ketumbit</i> and <i>daun ketumbit</i> provide inspiring factors for the Malay woodcarvers since they are often applied as part of the <i>awan larat</i> 's compositional design depicting tenderness and softness. Additionally, <i>bunga ketumbit</i> and <i>daun ketumbit</i> are herbal plants known for their medicinal benefits among the Malay community, as demonstrated in a study by Jasmani et al. (2019). These plants are commonly used to treat conditions such as sore throats, malaria, and minor wounds (Yusri & Chee, 2022).

Table 6
Still-life Motifs

No.	Signifier	Signified
1.	<i>Tunjuk langit</i> (sky pointer)	The <i>tunjuk langit</i> that points upwards signifies the light of Islam, which devotes the magnificence of Allah SWT (Ab. Aziz, 2018). The researchers' findings suggest that the concept of 'tunjuk langit,' which involves looking upwards, signifies a spiritual connection between individuals and the divine. In addition, it is associated with the house's structural integrity, particularly the ceiling and roof. This correlation is in line with the observations made in a study conducted by Isahak et al. (2022).

With the implementation of Saussure's theory of semiotics, the meanings of each motif were decoded for the findings based on the objective of this study. From the observations, the two traditional Malay houses of Rumah Zuriati and Rumah Tok Su Pangkin Nyai Seni revealed various motifs enveloping geometry, fauna, floral and still-life. Each theme will be discussed further based on the tables above to analyze the inherent meanings behind the motifs identified.

Geometry Motif

Geometrical shapes are primarily easier to carve. Geometry is the most highly sought-after pattern because it requires the human mind to enhance creativity through

mathematical thinking with repetition and symmetry (Basaree & Silah, 2013). In our study, the woodcarvings of geometrical shapes are rooted in the teachings of Islam to demonstrate that the production of woodcarvings must adhere to the principles of design as prescribed by Islamic norms and philosophy. The research studies conducted by Azmin et al. (2021) and Basaree et al. (2015) have established a correlation between symmetrical and repetitive shapes and their association with the Divine concept. This connection holds particular significance within the religious and cultural framework of the Malay-Muslim community. The findings shown in Figures 2 and 5 additionally indicated that the geometric patterns present on the gable

ends and window rails facilitate airflow and allow natural light to permeate the inside of the house. Firstly, the decorative patterns embellishing the bargeboard, as demonstrated in Figure 1, add to the aesthetic appeal of the external façade, with the roof section serving as a framing element for the overall appearance (Surat, 2018). Secondly, the motifs on the window rails can cast visually appealing shadows into the house's interior, which is consistent with the findings of Yusof et al. (2020) and Abidin et al. (2014).

Placing motifs in Malay woodcarving is essential for both functional and symbolic purposes. Geometric motifs are visually appealing and hold their values and meanings. The symbolic and aesthetic aspects of the motifs are further enhanced by their repetitive placements, which creates a sense of rhythm and harmony in design, consistent with the findings by Kamarudin et al. (2020). For instance, the universal symbol, which is the circular pattern, signifies that God is at the heart of this eternal circle, where creation begins, ends, and perpetually unfolds, as shown in Table 3. This result complements a study by Hesar et al. (2015), suggesting that the circle serves as a basis of a geometrical shape but also signifies the cosmos, enlightenment, and perfection. Another further illustration may be observed in the depiction of the triangle, which is occasionally interpreted as symbolizing the “pucuk rebung” (bamboo shoot) or a mountain in various cases of woodcarving. According to previous studies conducted by Ghassany and Santoso (2020)

and Zakaria et al. (2018), it has been shown that the utilization of “pucuk rebung” is analogous to a triangular configuration. Additionally, within the context of Malay woodcarving, the triangle's apex symbolizes the utmost power and represents Allah's divine essence, as elucidated by Ab. Aziz (2015). The utilization of triangular shapes in Malay motifs carries thoughtful importance, as indicated in Table 3, deeply founded in the rich design legacy of the Malay community, symbolizing and encapsulating the core essence of Malay identity.

Fauna Motif

Fauna motifs are a common theme in Malay woodcarving. They reflect the rich natural environment and cultural significance of animals in Malay culture. The discovered fauna motifs in these two houses, as shown in Figures 3 and 6, maybe inconspicuous to most people. According to woodcarver N. Noordin (personal communication, June 16, 2021), the hanging bat (see Figure 3) and *naga berjuang* (see Figure 6) found in Rumah Zuriati and Rumah Tok Su have been entirely abstracted and stylized to conform to the teachings of Islam. Norhaiza added that the concept of the *naga berjuang* is dragons symmetrically facing each other, even though it does not form the real shape of a dragon. Previous researchers, such as Badaruddin et al. (2020) and Jaffar et al. (2017), have discussed the *naga* motif in Malay society and culture, as indicated in Table 4, emphasizing its symbolism of strength and power. However, with the arrival of Islam in the 14th century,

the transformation of the *naga* motif has evolved over time due to the avoidance of figurative elements, a phenomenon supported by the study conducted by Sanusi and Legino (2015).

While the hanging bat and *naga berjuang* findings exhibit curvilinear lines, Malay craftsmen were allowed the creative freedom to abstract animal motifs, using them to convey daily life lessons. This outcome aligns with earlier studies conducted by Ab. Aziz (2015) and Haron et al. (2014), where the authors emphasized the positive meanings that can be derived from animal motifs, particularly in the context of Malay cultural significance and symbolism. Moreover, local Kuala Pilah woodcarver I. A. Latiff (personal communication, June 20, 2021) elaborated that adorning the house with the hanging bat motif enhances its aesthetic appeal but also carries reflective symbolism. As stated in Table 4, the hanging bat signifies wisdom and righteousness represented by the Malay people (Ab. Aziz, 2018). The hanging bat motif is also a prevalent decorative element in traditional Malay houses, inspired by the presence of bats that frequently enter these homes (Gazali et al., 2018). However, it is imperative to investigate a more representative range of samples to yield more generalizable findings, as the documentation pertaining to the hanging bat motif in woodcarving remains limited.

Floral Motif

The floral motif is the most distinguished

in Malay woodcarving. The floral motifs such as *bunga pecah empat* (see Figure 8), *bunga ketumbit*, and *daun ketumbit* (see Figure 7) contain symbols innately linked to the Malay culture. As stated in Table 5, the *bunga ketumbit* and *daun ketumbit*, for instance, are medicinal and valuable to the Malays. The *bunga ketumbit* and *daun ketumbit* are herbal plants that are found in local villages which serves as an inspiration for local craftsmen, and it has been discovered that the use of *bunga ketumbit* and *daun ketumbit* are prevalent in woodcarving designs due to its remedial usage for the local community (Yusri & Chee, 2022).

The *awan larat* (Figure 7) consists of a central motif known as ‘punca’ or ‘ibu,’ which symbolizes the emergence of plants, which is in line with previous findings by Yusoff et al. (2016) and Sabri et al. (2021). The *awan larat* motif is typically accompanied by leaves, flowers, and tendrils, creating a balanced symmetry along its axis. This motif holds spiritual and religious significance in Islam, as it often represents a continuous cycle with no clear beginning or end, a concept detailed in the study by Kamarudin et al. (2020). Furthermore, the *awan larat* motif has been a subject of discussion among researchers seeking to understand its underlying philosophy. The central position of the ‘punca’ within the design symbolizes radiance, vitality, and enduring qualities in every creation of woodcarving art, as highlighted in studies by Bakar and Utaberta (2013) and Harun and Samsudin (2022). The ‘punca’ serves as the

primary source for additional woodcarving leaves and tendrils, contributing to the overall balance and symmetry of the design.

Still-Life Motif

Still-life motifs are relatively rare in traditional Malay woodcarving. However, there are instances where certain elements of Malay socio-cultural symbolism have been integrated into Malay woodcarvings, often as part of a larger narrative, design, or emphasis on the overarching theme of Malay identity. The still-life motif, such as the *tunjuk langit* found at Rumah Zuriati (Figure 4), the rounded shape of a sky pointer, is an architectural element that establishes the identity of the home and house owner, consistent with a finding by A. S. Aziz and Olalere (2013). 'Tunjuk langit,' which translates to 'pointing to the sky' in English, is a motif that typically features what appears to be a hand with an extended finger pointing upwards, often toward the sky or heaven. As explained in Table 6, this motif holds deep significance in Islam, symbolizing the concept of the oneness of God (Tawhid), the importance of monotheism in Islamic belief, and the light of faith, as discussed in studies by Ab. Aziz (2015) and Isahak et al. (2022). A similar observation was made by Choo et al. (2022), referencing Nakula's work from 1985. They also underscored the *tunjuk langit's* role in symbolizing *Tawhid*, representing the unity of Allah SWT and acting as a reminder for observers. 'Tunjuk langit' serves as a visual and spiritual symbol of faith and devotion within the context of Malay culture and

Islam while also playing a definitive role in the identity of the house owner.

The findings reveal that each motif in Negeri Sembilan's woodcarving closely reflects Malay culture, religious values, and philosophy, embodying a unique and distinctive Malay identity. By applying semiotic theory for this study, signification involves decoding and understanding the meanings and symbolism associated with various woodcarving motifs. The results emphasize that these motifs' signification is not arbitrary or universally understood but is culturally and contextually situated. The process of signification entails interpretation influenced by cultural, social, and historical contexts, which may vary among different groups. However, the common signification of the analyzed motifs reflects the essence of Malay identity, as Malay woodcarving symbols are imbued with religious, cultural, and philosophical significance.

These signs and symbols facilitate interaction, comprehension, mutual compliance, and acceptance (Ab. Aziz & Abd Aziz, 2021). For example, the 'awan larat' signifier, as found in our research, is represented with floral and plant elements comprising 'bunga ketumbit' and 'daun ketumbit.' The primary signified of the 'awan larat' is associated with Islamic spirituality, symbolizing perpetuity and an endless cycle, aligning with previous research findings. Upon analyzing the 'awan larat' pattern, distinct flowers were observed, introducing additional connotations. Specifically, 'bunga' ketumbit' and 'daun ketumbit' were found to possess therapeutic properties

valued among the Malay community. Thus, the signifying process involves interpreting multiple layers of supplementary meanings and connections symbols may possess, as cultural settings primarily shape semiotics.

Furthermore, the meanings are mainly derived from their surroundings, as nature is one of the central stimulants of natural beauty for woodcarvers. Woodcarvers must possess extensive skills honed through years of practice to transform elements of their natural surroundings into abstract physical designs while adhering to Islamic teachings that strictly prohibit the depiction of human and animal figures. Simultaneously, woodcarvers express their admiration for the sacred beauty of the natural world, attributing it to the Creator of the Universe, Allah SWT. In old Malay communities, nature is deeply respected, including the characteristics of plants, animals, and even inanimate objects. The diverse forms found in nature hold the tacit knowledge of Malay history and the principles by which people have lived. Furthermore, the motifs carved onto houses often remind homeowners to live harmoniously with their neighbors, align with the natural world, and maintain a balanced coexistence. The Malay saying, "*Alam terkembang menjadi guru,*" translates to the vast natural world of being a teacher. Natural elements serve as a guiding inspiration for the intended meanings behind each carver's creation.

CONCLUSION

In summary, this study was to interpret the motifs found in Malay woodcarving,

particularly those prevalent in the samples from Kuala Pilah. These motifs encompassed various categories, including geometry, fauna, flora, and still life. This study also employed Ferdinand de Saussure's semiotic theory to unravel the symbolism embedded within these motifs and understand their cultural significance. The study's findings have illuminated the cultural and symbolic meanings encapsulated within Malay woodcarving motifs. Through the lens of semiotics, the study provided insights into how these motifs convey messages related to Malay culture, beliefs, and philosophical aspects. It became evident that nature is a pivotal source of inspiration for Malay woodcarvers, enabling them to manifest their aspirations, devotions, and stylistic skills. These woodcarvings, rich in symbolism, serve as cultural tokens representing significant importance in Malay vernacular architecture, conveying meaningful messages about history and socio-cultural identity. The choice of woodcarving material reveals both tangible and intangible aspects, contributing to the cultural identity and heritage of the people in Kuala Pilah.

Regarding theoretical implications, this study underscores the unique knowledge gained through applying semiotic theory in interpreting the symbols within woodcarving motifs. The study's undertaking of using semiotics theory not only provides a comprehensive framework of visual semiotics for present analysis but also establishes a basis for future research in related fields of study. Furthermore, the

incorporation of semiotic theory into this study holds the potential to generate progress in visual and cultural semiotics since this research aims to enhance our understanding of the efficient transmission of cultural messages through visual symbols, especially in the context of the Malay worldview. With a firm foundation in the woodcarving motifs of Negeri Sembilan in Malaysia, these symbols could impact the formation of cultural identity and artistic expression within this regional framework. In addition to its academic importance, this research has the potential to make a valuable contribution to the conservation and documentation of the cultural legacy of Negeri Sembilan. Identifying and documenting the cultural symbolism woven into woodcarving designs in Negeri Sembilan could guarantee the acknowledgment, commemoration, and preservation of this significant facet of the local heritage for future generations.

Limitations of the Study and Future Research

This study provides a comprehensive analysis of the symbols of woodcarving motifs in Negeri Sembilan through semiotics theory, whereby relevant previous studies are scarce and insufficient in documentation. However, it is necessary to acknowledge certain limitations of this study. One notable limitation of this study is its exclusive focus on Malay woodcarving motifs in Negeri Sembilan. This limitation arises from the fact that the research primarily examines a specific regional context, and as a result, the findings and interpretations may not be

easily transferable to other geographical regions or cultural contexts.

Secondly, the subjectivity of semiotic interpretation poses challenges in achieving standardized or universally accepted meanings for signs and symbols because the study's semiotic analysis prioritizes the Malay worldview while examining the carving motifs. Researchers are aware that there is a possibility for variations in interpretation and recognize that different experts may offer different insights into the same set of signs.

Thirdly, the theoretical framework used for this study is built upon the premise that meaning is not directly encoded in signs but is assigned to them by those who use and interpret woodcarving motifs. Therefore, this theory recognizes that interpretation is a complex process influenced by several factors, including culture, religion, individual experiences, and philosophical perspectives.

Fourthly, there is a potential selection bias due to the non-probability sampling method and the limited focus on exterior woodcarvings that were found. Subsequent inquiries should undertake a more extensive examination of the social and cultural surroundings of woodcarving motifs, with particular emphasis on its semiotic implications. This endeavor is crucial to enhance our understanding of the distinctive cultural value attributed to these motifs within the region of Negeri Sembilan. Therefore, this study serves as a valuable starting point for future research to delve deeper into the dynamics of woodcarving

themes and their symbolic representations within the region.

Finally, while semiotics theory offers a valuable lens for interpreting symbols, interdisciplinary collaboration with art history and anthropology experts may be necessary to fully grasp the historical and cultural context of woodcarving motifs in Negeri Sembilan.

Despite the limitations, a call to action for future research is recommended. Future research endeavors could extend studies of Malay woodcarving motifs in the specific region of Negeri Sembilan since documentation is limited, and there is ample room to explore this aspect further. While living in a digital age, research can extend to developing comprehensive databases and digital archives dedicated to Malay woodcarving motifs. It could help facilitate the preservation and accessibility of semiotic interpretations and woodcarving history, especially in the context of Malay motifs in the state of Negeri Sembilan. As a result of the swift growth of urbanization, a significant segment of conventional Malay households has initiated the replacement of timber dwellings with constructions made of slabs and bricks. Consequently, woodcarving themes have been neglected and fallen into disrepair. Therefore, it is crucial to prioritize research that focuses on preserving and maintaining woodcarving themes seen in traditional Malay buildings in Negeri Sembilan, as well as their cultural relevance. Exploring techniques to preserve these art forms for future generations can be a worthwhile avenue of inquiry. This

study emphasizes the significance of future research efforts for scholars and researchers to enhance and authenticate the theory employed in this domain while expanding upon the fundamental framework laid out in this investigation.

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Case Study

The Case of Language Media Content (Memes) of the Pandemic

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ABSTRACT

The pandemic period gave rise to numerous memes in response to online audiences. In this article, the authors analyze the corpus of memes of Italian and Russian language media content during the 2020 pandemic from the perspective of a sociolinguistic approach, identifying the most significant groups of memes-markers as a response to the network audience involvement. The authors point out the ability to spread and maintain a stable form as an important component of these memes, as well as the emotional and phatic functions of a meme in the sociocultural space of the Internet community in Italy and Russia. Emerging in the media space and reproduced through reposting, memes have become a sociocultural phenomenon and can manage information flows. Besides, thanks to the halo of mass coverage, entertaining character, and affinity to the emotions of the addressee, the meme reflects the opinion of many users and does not need the category of authorship. It makes no difference whether a meme is a picture or has only a verbal component, and it is essential to be recognized in any of the many variations. At the same time, if the created meme has gained popularity and has become entrenched in the virtual environment, it can later form a way of realizing urgent needs or suppressing some trends while strengthening others.

Keywords: Digital culture, media content, memes, memetic space, pandemic, sociocultural space

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INTRODUCTION

Changes in society greatly impact the development of the media sphere, including media content (Villi & Noguera-Vivo, 2017). There are new audience requirements

for the presentation of information, which causes natural changes in forming a common sociocultural and media space (Waddock, 2015). In the modern internet space, where a person acts not only as a consumer of media events but also as their creator, the structural qualities of communication are reflected through a text and visual message, containing most of the expression—memes. The primary factor in the rise and popularization of memes, not only as a resource but also as a reflection of mentality and culture in the studied period, is optimization and simplification of the expression of meaning using text, visual and auditory components, with a focus on the maximum realization of the actual needs of the society. If a meme is just neutral information in everyday life, its role became unexpectedly important in socio-political and cultural life. Memes have become a way to influence people's moods, sympathies, lives, and choices. Memes may compete, may or may not pass their natural selection, and may be transmitted quickly or slowly, depending on the difficulty of assimilation and the availability of suitable carriers nearby. They can be grouped into “memplexes”—doctrines, religions, ideologies, conspiracy theories, and much more.

The modern era of research in the philological sphere is generally associated with an increased interest in comparative analysis of different languages, pointing out the similarities and differences on various levels, thus making observations concerning the languages and the cultural

peculiarities. We analyze the Italian and Russian data because the COVID-19 crisis and its ensuing periods of confinement have generated high levels of social stress. Italy was the first European country where the coronavirus spread wildly and later spread to Russia. Social networks became the space that brought people together, and memes were the type of message most shared. The present article analyzes the collected corpus of memes of our home country (Russia) with those of Italy during the 2020 pandemic and responds to why some memes become popular and some are long-lasting. What historical characters/media personalities/politicians gave rise to many memes, and what is the reason for this? Can a good meme overcome local boundaries? Do memes always appear spontaneously, or are memes introduced intentionally? Is it reasonable that a meme can be identified with a cultural universal and be the main broadcaster of society and culture? To answer the questions, the authors analyzed the whole corpus of memes that appeared on the network during the 2020 pandemic: Instagram, Twitter, Facebook (Italy and Russia), MySpace (Italy), Telegram, vk.com, and ok.ru (Russia).

For this research, we chose a sociolinguistic approach with elements of semiotics. Thanks to the first one, we concentrate on verbal and non-verbal communication phenomena. In contrast, the second one helps analyze how a sign transforms into a meme and is used for specific purposes.

LITERATURE REVIEW

This article defines a meme as an information complex filled with expression that shapes the social environment and is transmitted mainly through social media. Suppose the content of a meme expresses an exaggerated emotional reaction in a certain life situation specific to a particular group, and the recipient belongs to this group. In that case, later, it is highly likely that in a similar situation, this pattern is reproduced, or the interlocutors focus on the memory of the viewed meme and have the desire to reproduce it. The main difference between a meme and other ways of representing information on the Internet is playing with a mass character's effect, emphasizing the globality of a process (with its subsequent positive or negative assessment) and indicating one belongs to something.

The concept of “meme” was introduced by Dawkins (1976) in the book “The Selfish Gene” and means a unit of storage and dissemination of cultural information that is transmitted from one individual to another while comparing the processes of evolution of culture and biological evolution. According to the author, when transmitting cultural information, the meme acts like a gene transmitting genetic information; that is, a meme is a living reproducible structure (replicator). Similar to how genes are localized in chromosomes, memes form complexes—meme complexes, memplexes (memplex from meme + complex) as examples of

which are usually cited in religious or political doctrines (Dennett, 2007).

Developing the idea of memes as replicator genes, Blackmore (2000) transfers them into the cultural sphere and moves away from understanding the meme as an idea, defining a meme as something that is imitated or as information copied from person to person and influencing the culture and activities of people. Following the gene and meme, Blackmore (2000) singles out a *technomeme*, or a *teme*, for the storage and distribution of which digital devices are responsible.

Applying the concept of “meme” to the information environment, the media researcher Rushkoff (1996) defined memes as *media viruses*, memes, and meme complexes spreading across the infosphere, changing the perception of local and global events. In other words, recently, the “viral” distribution model has been gaining in popularity (Tiron, 2007), according to which memes have the status of media viruses operating in the information environment and significantly impacting users' minds and implying (following the concept of memetics) that memes, through the principles of replication and imitation, contribute to the spread of culture or subculture and ideas implanted in society (Denisova, 2019). Nowotny and Reidy (2022), indeed, speak about “digitality culture” and propose the concept of “Memesis.” According to Pettis (2022), memes serve as historical artifacts and can be understood as a form of folklore.

METHODOLOGY

The concept of a meme is multifaceted and allows for many interpretations, as evidenced by the works of modern scientists who comprehensively study memes from the standpoint of two or more approaches. The most studied is the sociolinguistic and linguopragmatic aspects. The modern paradigm for the study of memes is an integral paradigm, which involves using complex methods and techniques for analyzing a wide range of memes affecting almost all aspects of society's everyday life. Most works are devoted to the analysis of memes on (1) political topics (Dyner & Poppi, 2020), (2) memes as a manifestation of people's reaction to certain political events, (3) memes as an attempt to comprehend the present and rethink the past (Kalkina, 2020), and (4) memes as a tool of political struggle (Hakoköngäs et al., 2020). Kassing (2020) studies the corpus of memes on (1) sports rivalry, (2) reflecting the fans' attempts to support their favorite players, (3) demoralize the opponent, and (4) demonstrate their belonging to a particular club. The interest of scientists in memes also confirms the importance and relevance of research in this area as a focus of reflection on precedent phenomena in medicine, psychology, ecology, and marketing. In this context, the most prominent are ecologists and eco-activists who use standard meme patterns to use irony and sarcasm to direct public attention to serious environmental issues and climate change (Ross & Rivers, 2019). In the business community, the meme becomes a marketing and strategic tool

for the company, with the help of which public interest is aroused by replacing an advertising poster or a poster with memes with provocative and contradictory content (Skjulstad, 2020). Government institutions (for example, the police in Australia) use memes on social networks to create a certain image among the population (Wood, 2020). In medicine, British scientists use memes on depression in diagnosing and treating depressive conditions, studying the reaction of patients and their perception of memes (Akram et al., 2020). Psychologists in the United States are researching memes that campaign for or against vaccination. Quantitative and qualitative analysis of the content, reactions, and comments to memes allow the development of a communication strategy to inform the population and debunk myths about the risks of vaccination (Harvey, 2019).

With all the variety of approaches to analyzing Internet memes, researchers most often apply the above-stated ones because they accurately reflect the specifics of the Internet meme phenomenon in communication (Ballesteros, 2016). Indeed, the main characteristic of a meme is (1) informational content, (2) the ability to quickly spread from person to person, (3) a stable form with an unstable meaning, and (4) a connection with a specific audience, for which it serves as a way of expressing emotions. Accordingly, further in the article, we define the Internet meme and focus on reflecting social and cultural space, a sign with a stable form that contains a changing concept.

This subject matter is explored using a qualitative methodology and ethnographic fieldwork from the perspective of a sociolinguistic approach, and the memes are categorized to reveal fears, concerns, and experiences during the Coronavirus crisis. For this research, we chose the sociolinguistic approach with elements of semiotics because, thanks to the first one, we concentrate on communication phenomena expressed verbally and non-verbally, while the second one helps to analyze the way a sign transforms into a meme and is used for specific purposes. After Cannizzaro (2016) and her research on semiotics developments (Brier, 2008; Hoffmeyer, 2008; Lotman, 2001), we consider information as a relational entity and internet memes as sign systems.

The popularity of certain memes, their further modifications, and their lasting use also signify the relevance of the meme for our research, as well as the fact that apart from merely making fun of the events, memes start developing acute political senses. In the analyzed corpus of memes of the Italian and Russian language media content during the pandemic, we have identified the most significant groups of marker memes that reflect the brightest response of the network audience.

RESULTS

Due to the intensive technological development of the modern world, communication has often begun to be determined by the properties of the message carrier. Having appeared in the process

of self-organization of communication in social networks, first, memes are a product created by Internet users themselves (van Dijck, 2009), who satisfy their internal needs by producing and spreading memes and achieve the desired reaction from the interlocutor with the help of a meme. In social networks, the meme becomes the main marker of users' wide involvement in any process. Therefore, memes can be deemed the main way to transmit information on social networks or represent various groups' opinions about political and social problems. The events of 2020 became a fertile field for the emergence of a huge number of memes, while the study suggests that, despite the universality of the COVID-19 pandemic, national culture finds its manifestation in memes and determines the attitude of citizens to the situation.

This paper explores a corpus of static online memes compiled in Italy and Russia from January to December 2020, during COVID-19 using memes disseminated via Instagram, Twitter, Facebook (Italy and Russia), MySpace (Italy), Telegram, and vk.com, ok.ru (Russia). A corpus of 730 memes that have flooded social networks is thoroughly categorized and analyzed. Striving for clarity in the results, we deliberately chose the most popular items (with the most reactions, comments, and likes) on COVID-19 in equal proportions for both languages (365 each):

1. Italy: 66% of the collected corpus memes were taken from Instagram and Facebook (34% and 32%, respectively) and 34% from Twitter

and MySpace (20% and 14%, respectively) (Figure 1).

2. Russia: Almost half of all the collected corpus memes were taken from vk.com (25%) and Facebook (24%). The sources of 29% of all the memes were Instagram and ok.ru (17% and 12%, respectively), and one fifth came from Telegram (12%) and Twitter (8%). (Figure 2).

Selection criteria for corpus:

1. Linked to the COVID-19 crisis.
2. Geographical context: Italy and Russia.
3. Humorous nature.
4. If the memes are only visual, they must contain elements or characters from Italian and Russian culture.
5. Understandable to the wider public (without slang, sociolect, or regional realia).

Namely, in the analyzed corpus of memes of the Italian and Russian language media content during the pandemic, we have identified the most significant groups of marker memes that reflect the brightest response of the network audience.

Rush Demand for Essential Goods

From late February to early March 2020, Italy and Russia began introducing quarantine measures concerning the COVID-19 pandemic. People began to massively stock up on essential goods (such as cereals, pasta, toilet paper, canned food, and sanitizers), which was a background for some statements. For example, in the Russian media, there was a statement by the head of the regional department for the food, processing, pharmaceutical industry, and biotechnology Bolshakov: “During the pandemic, most families created annual supplies of buckwheat and toilet paper” (Bolshakov, 2020). As a result of this situation, one of the most popular memes that can be found on Russian social networks has become a marker of wide user engagement: One gentleman asks the

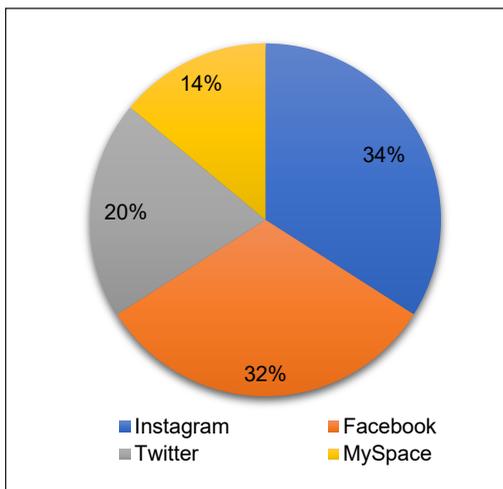


Figure 1. Italian memes sources diagram

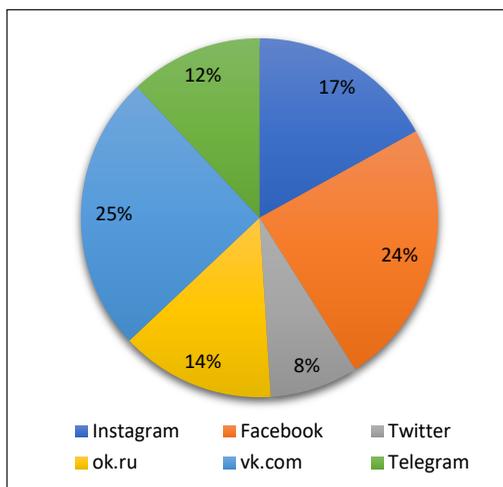


Figure 2. Russian memes sources diagram

other what securities are worth investing in, to which the other replies that the most valuable security is a three-layer Zewa toilet paper.

There was a meme in Italian with empty counters with only two types of the least popular pasta and an inscription that the “Coronavirus taught us two things: People are stupid, and farfalle and penne are disgusting.” Other examples were “The main victim of the virus is penne” and “Penne accuses Italians of bullying.”

Another popular product in the analyzed period was hand sanitizer. Russians and Italians started buying antiseptics in pharmacies, stores, and online platforms. In the wake of the pandemic, the antiseptic has become one of the main meme characters on the Internet. Pictures of characters from world-famous films started appearing on the Russian Internet, looking eagerly at the sanitizer with the inscriptions: “My treasure” and “This is the best gift.” On the Italian network, memes often announce the readiness to exchange a new car or iPhone 11 for an antiseptic.

Distance Learning

One of the most common memes on this topic was the meme about the mother who invented a vaccine after several days of self-isolation with children.

Through memes, Italians and Russians showed irony about teachers’ unpreparedness for online learning. For example, the most popular memes were in Italian, where the teacher asks the students how to turn up the volume, and they kindly

prompt him to a combination that blocks the teacher or closes his or her online conference window on his or her screen. In both languages, some memes mimic the images of classmates during online learning. As a rule, these are images of cartoon characters and animals with funny faces/muzzles. Many memes were devoted to the tricks that schoolchildren resort to not to answer the teacher’s question or to explain the lack of homework: You can freeze as if the computer is frozen or pretend there are Internet problems.

In the Russian network, during distance learning, we note many memes that played up the realities of the Russian school, such as fundraising for the class’s needs and parents’ reproaches to teachers about their professional unsuitability. In some memes, parents request that the school cover the cost of repairs to their child’s room since they have been studying from home. In response, teachers laugh good-naturedly at the parents, who may now realize that their child’s academic struggles are not solely the teacher’s fault. In other memes, family members in underwear appear on camera during online classes for physical activities or handicrafts at home.

However, the most vivid response in the network in the format of memes relates to the topic of the final exams in Russia (Basic State Examination and Unified State Examination), *maturità* in Italy, and the statement of the Minister of Education Lucia Azzolina that students who lagged can be left for the second year (Zunino, 2020). In Italy, the matriculation examination was

conducted in an abbreviated form (oral part only). In Russia in 2020, the Basic State Examination was not held, and the Unified State Examination was postponed to a later date. This situation of anxious expectation and joy or grief is widely reflected in memes in Russian and Italian. At the same time, we can classify such memes as instant memes, quickly losing their relevance. Commenting on the news with memes is not a common practice but rather an emotional reaction or an attempt to provoke one.

Remote Work

For many people, remote work has become a real challenge. In the analyzed media content of the pandemic period on the Italian and Russian-speaking Internet, there were quite a few variants of a meme on the appearance of an employee working remotely: If the computer camera is turned on, formal clothing is typically worn above the belt, and informal clothing is worn below the belt. Another meme related to the peculiarities of remote work without a camera shows us avatars with images of animals and the caption: “Me and my colleagues in work chats for the coming weeks.” Several memes depicted how certain professions, like pathologists, rescuers, and archaeologists, would look while working from home.

In Russian social networks, a meme has gained popularity with the image of a scene from the well-known film “The Diamond Arm” and the famous phrase in which one word was replaced: “And you know, I wouldn’t be surprised if tomorrow it turns

out that your husband is secretly attending work!” In Italian social networks, in turn, there was a meme with a scene from the film “Finding Neverland,” where Johnny Depp is sitting on a bench with a boy, smiling sympathetically at him and saying that he will have time to rest on lockdown, to which the boy responds with tears in his eyes that he is from the IT department.

A meme on parents working remotely could depict them resorting to extreme measures like taping their children to the floor or wall. The meme would highlight the challenges of working from home, such as conflicts with family members or the need to attend to young children constantly.

Pets

In Italy and Russia, during the period of the most severe quarantine, people were allowed to go outside to walk their dogs. The trend of tired animal memes emerged, featuring animals being taken for walks by all household members. Some people even walked their toy animals, like hamsters and fish. Some people even brought leashes and pretended their pet was lost when encountering a police officer. Memes on this topic were identical in Italian and Russian, except for pun-based jokes, such as the meme about invisible animals because they are cockroaches in the mind.

Another sociocultural topic reflected in the memes was pets forced to share territory with a person, endure constant affection, and pretend to be obedient. In this regard, memes appeared on the Russian and Italian Internet depicting sleeping, tired

pets with disgruntled faces, dreaming that their owners would quickly go to work. The memes were accompanied by text: “Sit down, I need to talk, are you going to work at all or what?” and “Lord, let them go to work!” In addition, there were many memes on the network about cats who were surprised by the constant presence of the house owners, tired of excessive attention, and trying to send the owners to work. Usually, the cats in the photographs have a serious and businesslike appearance, sit in human poses (for example, with their front paws on the table), and ask their owner why he began to spend so much time at the cat’s home. During a video conference, there were also memes where cats consulted with their “colleagues” about what to do in this difficult situation and how to cope with the lack of personal space.

However, the largest number of memes with cats, not with dogs, was in Russia. One of the most popular subjects was the meme with cats waking up their owner Natasha and telling her the latest news (“the dollar has fallen”), giving advice (“go to work”), and, of course, asking for food. A series of memes with Natasha’s cats was so popular that some phrases became winged: “We dropped everything” and “Natasha, honestly.” This meme has been widely used for irony about oil prices, constitutional amendments, quarantine, and more. In this case, we have a vivid example of when a meme becomes a kind of symbol of a pandemic, does not lose its relevance in the future, and continues to be used in political news and everyday situations.

Statements of Politicians

Special attention and analysis should be drawn to the memes that have become the focus of reflecting society’s reaction to the statements of politicians. At the same time, an example of “spontaneous” political memes can be the responses of the network audience to certain statements or behavioral strategies not only of top officials of the state but also of local politicians. In Italy and Russia, heads of state (Prime Minister Giuseppe Conte and President Vladimir Putin) have regularly addressed the nation to explain the measures to fight the virus. Among the Russians, the President’s words about the nomadic tribes Pechenegs and Cumans (Polovtsy), who tormented Russia, evoked the most vivid response. The memes played out the rivalry of the people mentioned among themselves for primacy in Google trends, the consonance of the names of these people with the words “cookies” (“*pechenye*”) and “pilaf”/“swimmers” (“*plov*”/“*plovtsy*”), they also reminded of the actor with the surname Polovtsev. There were memes with a historical connotation: The presidents of Mongolia and Tatarstan were offended that their peoples were not named, although they also tormented Russia, and the President of Poland, on the contrary, was glad that he was not mentioned. Memes (against a different background) explaining the election of Vladimir Putin were also popular: In a video message to raise the spirit of the nation, it was necessary to recall the important victory of the Russian people, but they talk a lot about the fight against fascism during the Second World War, and

the French, defeated in 1812, and are now suffering from Coronavirus themselves.

The Italians also remembered the most glorious period in their history: The very popular meme with the inscription “If we advance coughing, we will return the Roman Empire” (*se avanziamo tossendo, ci ripigliamo tutto l'impero romano*) against the background of the map of the conquests of the ancient Romans. Speeches by heads of state accompanied many memes before lifting the restrictions, and for the same reason, there were unclear instructions. The Russians were sarcastic that now it is not only possible but also impossible to have a walk, and the Italians understood from Conte’s speech that Phase 2 is the same as Phase 1, but you can annoy your relatives.

Perhaps the most “memologized” statement by Premier Conte was the following phrase: *Dobbiamo dircelo chiaramente: Questo rischio c'è* (Let’s face it: There is such a risk). The implication was the risk of a repeated increase in the incidence in case of non-compliance with the rules of distancing and hygiene. At the same time, the Italians suggested a huge number of life situations in which this phrase is appropriate (for example, the risk that the computer will freeze during distance learning or the excitement of a mother who lets the child go for a walk for the first time after the withdrawal of the self-isolation regime and is afraid that he or she will not return for dinner).

In addition to Giuseppe Conte, other Italian politicians became famous in the memes, for example, the governors of

some regions and mayors of cities. Some reacted very emotionally to violations of self-isolation by citizens and to attempts to circumvent the established rules. We can safely say that the leader in the number of memes was Vincenzo De Luca, President of the Campania region. Addressing the region’s residents on March 20, especially the graduates who wanted to organize a celebration on the final research paper defense, De Luca said he would send carabinieri with flamethrowers for these holidays (Corriere della Sera, 2020). The Internet reacted to this with memes in which De Luca is depicted against the background of shots from the action films “Terminator,” “Rimbaud,” “Agent 007,” and “I am Legend,” and memes with sarcastic inscriptions, such as “De Luca prohibits the use of the ESC button on the keyboard,” “God will forgive, but I will not,” “Leaving the house to get some basil? Think of something better,” and even an allusion to the famous Kant’s quote “the starry sky above me, the law and discipline inside me.” The latter contains an allusion to the governor’s repeated attempts to refute the well-known stereotype about the disorganization of the Southerners.

Among Russian local-level politicians, the meme hero has undoubtedly become Moscow Mayor Sergei Sobyenin. Firstly, the virus affected Moscow more than others, and the capital’s lockdown was the toughest. Secondly, Moscow is the most visible among other cities, and Sergei Sobyenin is a frequent meme hero (*Strana poshla na popravki*, 2020). The main reason for

jokes is usually the economic activity of the mayor, namely, the shifting of tiles and curbs in the capital, which is not always of high quality and appropriate. The pandemic period was no exception: Muscovites joked that the mayor introduced a self-isolation regime so that new tiles would not get dirty or to replace infectious tiles with non-infectious ones.

The most popular meme was built on a play on the words “amendments to the constitution,” which sounds like “get better,” that is, start to recover. On different backgrounds (usually next to the portrait of Sobyenin), it was written that the country went on amendments, thus hinting at the relationship between voting on amendments and reducing the incidence rate. Such memes have captured the online audience’s attention with viral speed because the genre of the memetic message itself is the best way to meet the communication needs of the modern public. In addition to the functional ability of a political Internet meme to instantly replicate, attention should be drawn to the predominantly ironic nature of most of such communicative formations.

Government-imposed Rules and Criticism

Separately, we will single out a group of memes related to the rules and measures introduced by governments. First, this concerns masks (the wrong way to wear them) and the need to keep a distance. Many memes are photographs of citizens who put on a mask over their eyes, make a hole in it for a cigarette or just to breathe,

and also wear a mask instead of underwear (the government requires wearing a mask when going out, but nothing is said about the rest of the clothes). In Russian and Italian, many photo memes of objects, such as bras, panties, bags, and toy helmets, are used as masks. Russians and Italians were ironic that from constantly wearing masks, you will have to straighten your ears and wear a mask from behind. In terms of distance, the whole world saw an announcement that a distance of 1.5 meters is roughly the same as the length of an adult bear.

In Italy, the concepts of *assembramento* and *congiunti* have been discussed extensively. The first can be translated as “congestion,” and the second as “relatives.” Both words were used in the President of the Council of Ministers decree, which entered into force on May 4, 2020 (*Gazzetta Ufficiale della Repubblica Italiana*, 2020), and related to restrictive measures to combat the Coronavirus. Nevertheless, in modern Italian, these two words are used infrequently. Therefore, the Italians asked a logical question: How many people constitute an *assembramento*, and which of the relatives and friends includes the term *congiunti*, that is, whom you can see during the so-called Phase 2 fight against Coronavirus?

Thus, to answer whether a good meme can overcome local boundaries, we concluded that the above-stated categories of memes tend to be actively exploited outside local boundaries, mainly in political communication. The leading position after memes on the rush for essential goods

in Italy and Russia is occupied by the categories of memes on the topics of the rules imposed by the government during the pandemic and the statements of politicians. Another question is whether memes are always born spontaneously or whether most memes are introduced on purpose.

The performed analysis of the corpus of memes during the 2020 pandemic in Italy and Russia allows us to state that memes, due to their viral nature, not only infect the consciousness of communicants but also can change the mental attitudes and behavior of a person (Moiseenko, 2015). Memes can be considered a technology to create a mood or to push the interlocutor to a desired action. Furthermore, to attract attention, a message spread in the media must have an informational status or, in other words, contain new information. From this point of view, memes are deliberately created and forced, which contributes to managing events at the center of public attention (such as attracting or distracting attention, distorting the meaning of an event, and changing its scale). An example is a meme that came from offline, Navalny eating a *dosirak* (Korean instant noodle soup), which was launched on the web quite deliberately, and, of course, this meme is not the only one.

So, for example, the meme about the need to wear masks, aggressively and deliberately launched on the web, supplants the opposite belief that wearing masks is useless. Convincing people of the need for masks was more difficult than dissuading them from using them because it takes discipline, acceptance of the inconvenience,

and some effort. However, this meme won. To a great extent, due to the efforts of propaganda and largely due to objective necessity. It is quite characteristic that initially, even some doctors who had already changed their minds opposed the masks. Furthermore, this suggests we are unaware of which clichés to transfer and broadcast to others. In such a situation, a meme is an implicit tool for shaping public opinion, deliberately used in political technologies, advertising, branding, and marketing (Benaim, 2018).

Here are some more examples. One of the most popular plots in Russia was the meme about Maxim, who has been eating sausages all his life but refuses to take the vaccine because he does not know its composition. Similar memes depicting hot dogs, energy drinks, medicines, and the inscription: “No vaccine, because you don’t know what is inside” can be found in different languages. On the Italian Internet, there were memes with images of people with sad, reflective faces and the caption: “Your face, when you just got vaccinated against COVID-19 and learned that COVID-19 Pro has appeared.” Furthermore, on the same wave in Italian social networks (Veneto region), there was a meme with the image of a car carrying wine bottles and a Pfizer label and the inscription: “The disappearance of the vaccine around the world, but not in Veneto.” Another example is when, at the beginning of the pandemic in Russia, the conspiracy theory was somewhat popular: There is no virus. It is a conspiracy of politicians. The government started all

this by quickly adopting the Constitution without a vote. The date was called April 10. “Everything will be over in April 10,” said housewives from WhatsApp chats with a sage look.

Italian and Russian memes are grouped into categories representing the most important events and problems of the time that found their response on various networks. In both countries, the drastic events of 2020 were interpreted with wit and irony, alleviating people’s condition at the time. The differences are mostly connected to different backgrounds of the cultures. However, overall, we can state that memes reflect a similar reaction to the pandemic and a similar use of memes in Italian and Russian cultures (Figure 3).

The diagram shows the breakdown of all collected memes by their meaning. It represents the similarities between the countries, which are the unconditional love for pets (the biggest number of memes in both languages) and vivid response to the changes that matter most in people’s lives

(remote work and distance learning). We can also observe that the shift to distance learning in Russia caused more problems, challenges, and funny situations, resonating with more memes in this area.

DISCUSSION

The examples confirm that memes can manage information flows, causing socially significant consequences, such as influencing public beliefs and the choice of politicians. In addition, due to the halo of mass coverage, entertaining character, and affinity to the emotions of the addressee, the meme reflects the opinion of most users and does not need the category of authorship. Due to the lack of dialogue, the meme is either skipped or perceived and subsequently distributed by the recipients.

Why do some memes become popular, and why are some long-lasting (Berger & Milkman, 2012)?

All memes flare up instantly and brightly, but many are ephemeral. Having appeared and being transmitted in blogs,

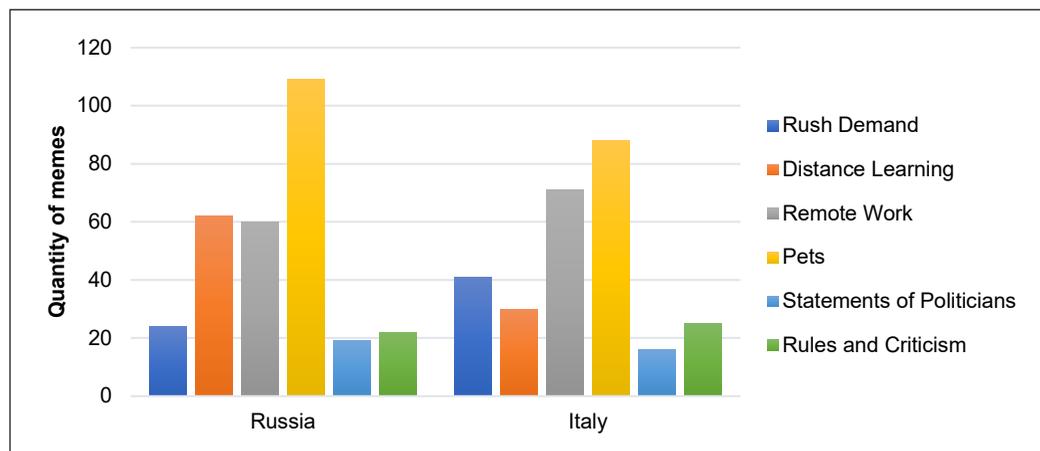


Figure 3. Semantic groups diagram

forums, image boards, social networks, and memes creates an illusion and imitation of communication. The meme aims at a comic rethinking of reality. As a result, the recipient will pay attention to those memes that reflect his emotions and ideas, creating the effect of reciprocal communication. In practical terms, thanks to this illusion, it becomes possible to introduce an idea or image together with an important message to the recipient.

Virtual reality formed on the Internet has specific properties: (1) Generation, (2) relevance, (3) autonomy, and (4) interactivity. Often, the most popular is a meme, which is absurd and, at the same time, does not require additional meanings. On the other hand, many memes reflect a certain communicative type, but they cannot adapt plastically to changing interests. However, suppose the created meme has become popular and entrenched in a virtual environment. In that case, later, it can form a way of realizing actual needs or suppressing some and strengthening other aspirations. In this case, is it legitimate that a meme can be identified with a cultural universal and be the main broadcaster of society and culture?

From the point of view of cultural linguistics, memes are considered units carrying cultural information capable of replication. Culture means what people do in a certain society at a certain time. It is often impossible to understand memes without special cultural background knowledge. For example, in Russian-language discourse, allusions to Soviet topics are often found, and Russians also like to refer to the classics

of literature and play with aphorisms. A popular meme usually contains a play on words and requires additional knowledge. On the other hand, the information environment filled with memes can self-organize and contain the qualities of proverbs and sayings that convey the accumulated social experience. Culturally significant memes can be nationally conditioned and understandable within a certain national community. Alternatively, it can be created within the framework of a small local group that is not widely known. Notably, Russians and Italians willingly use meme templates referring to famous American movies, but the references to their culture are numerous. Furthermore, the rethinking of local realia in a humorous way says a lot about the people's creativity and the self-criticism of Italians and Russians.

At the same time, we can talk about universal memes that are understandable to everyone worldwide since some cultural facts are common. So, during the pandemic, memes began to appear on the Internet that play up popular stereotypes about Russians. For example, a meme depicting people who began to turn into Russians after vaccination—started wearing a hat with earflaps or riding a bear, turned into Putin or a bear. The traditional and primary Russian drink samogon, as well as the process of its production, gained fame all over the planet and became a topic for memes many times. On the Russian-language Internet, you can find memes depicting scenes from the film “Samogonshiki” (producers of samogon) and lines that rare footage from

the laboratory for creating a vaccine against Coronavirus was published on the network.

In this case, we can say that such memes do not directly carry valuable information, do not assert directly, but rather evoke certain associations. A meme in modern society is a super language, which often makes more sense than it might seem at first glance since analyzing memes in a certain historical context makes it possible to predict social and cultural changes.

CONCLUSION

Analyzing the corpus of memes as a focal point for reflecting on the 2020 pandemic period allowed us to identify culturally significant stereotypes and values in each linguistic community. Memes, which originated in the media space and are now widely shared through reposting, have become a sociocultural phenomenon that creates a sense of belonging within a virtual group. The need for text-based expression in a fast-paced and interactive system encourages dialogical communication and requires concise yet expressive messages. We note such characteristic features of a meme as (1) its targeting, (2) closeness to colloquial speech and a particular subculture, (3) quick accessibility, (4) fast forgetfulness, (5) amusement, (6) reliance on a stereotype, (7) interactivity, (8) the ability to evoke vivid emotions, (9) self-replicate, and (10) viral character.

The culture of memes has much in common with the culture of anecdotes, aphorisms, and sayings but synthesizes them into one complex. The interpretation

of the meme is not the main thing. The meme should be understandable for everyone thanks to the pattern by which it is made. The following parameters determine the survival and prevalence of a meme: (1) extreme simplicity, (2) ease of creation, (3) compensatory needs of the target audience, (4) attributiveness (the ability to label oneself and others with the help of a meme), and (5) the relevance of the problem in question. The analysis shows that if, in everyday life, a meme performs the function of a communicative and is used to connect words in sentences, then memes functioning in the media space during the 2020 pandemic reflected real and most relevant events for society, interpreting them mainly in an ironic way (Dyrel, 2021), becoming an implicit tool for shaping public opinion.

Thus, meme plays a double role in the structure of modern Internet communication, and due to such popularization, memes become an obligatory feature of communication in any community, even if it is aimed not at entertainment but at informing the audience.

The research results can be used in the future to compare memes of culturally more “distant” countries (a European with an Asian one, for example). Also, it would be interesting to analyze, on the contrary, the COVID-19 memes of culturally close European countries (like Italy, Spain, and France). As memes contain culturally relevant information, their analysis and discussion can be used in teaching a foreign language (in our case, Italian).

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Managing *Waqf* Land in Indonesia: ANP-Driven Strategies

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ABSTRACT

This study aims to elaborate on the main problems of developing *waqf* (perpetual charitable trust) land in Indonesia and provide identifiable empirical results of the main problem, solutions, and strategy as a framework to guide stakeholders to produce policy recommendations appropriately using the Analytical Networking Process (ANP) approach. Several steps were followed: decomposition, model quantification, and result analysis. The initial data was collected through a literature review, focus group discussion, and in-depth interviews. This data was used to construct an ANP framework, which was then analyzed using *Superdecision* software to obtain conclusions. This study found that the most considerable aspect regarding *waqf* land development in Indonesia was the managerial issue. Unprofessional management has become a top priority. The *waqf* institution should increase its responsibility to the public, which is the highest rank of solution regarding the *waqf* land problems. This research also derived the strategy recommendations: reforming and strengthening *waqf* regulation.

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INTRODUCTION

As a Muslim-majority country, Indonesia was supposed to have enormous potential and opportunities for developing *waqf* (Haneef et al., 2017). The dominant *waqf*

type in Indonesia is *waqf* land, which is believed to hold a massive economic power that can immensely benefit public welfare (Fauzi et al., 2022), according to the Indonesian Ministry of Religious Affairs' data (Ministry of Religious Affairs of the Republic of Indonesia & Indonesia Waqf Board, 2020). Indonesia's *waqf* land has reached 52,000 hectares spread across 391,909 locations throughout Indonesia. Nonetheless, more than 75% of *waqf* lands in Indonesia are not fully utilized to acquire additional economic value (Ministry of Religious Affairs of the Republic of Indonesia, 2020). Most *waqf* land in Indonesia is used for mosques and cemeteries (Zulkhibri, 2017).

In contrast, it can be utilized in another physical form, such as orphanages, hospitals, veterinary hospitals, mobile clinics, animal shelters, plantations for reducing deforestation, libraries, student dormitories, public transportation facilities, roads and bridges, shelters, and schools (Çizakça, 1998; Zain & Ali, 2017). The Indonesian Government has been intrigued by the *waqf* land problems and subsequently issued *Waqf* Act No. 41/2004 and Government Regulation No.42/2006 to regulate the implementation of *waqf* land. Since the regulation was issued, however, the meaningful impact regarding the utilization of *waqf* land has not yet been ensured. The development of *waqf* land-related areas seems rarely noticed and has slowly progressed (Fauzi et al., 2022).

The issue of idle *waqf* land in Indonesia is only one aspect of the greater issues surrounding *waqf*. Consequently, a

comprehensive study of these issues is imperative. There are many problems and challenges to fully developed *waqf* despite the numerous discussions around the Islamic world mentioning that *waqf* plays a role in social welfare (Medias et al., 2021). Zulkhibri (2017) mentioned that the general problems related to *waqf* land development are lack of financial resources, undeveloped and unproductive *waqf* land, loopholes in the legal framework, and unregistered *waqf* land, *waqf* on leasehold land, and land classified as heritage. In other specific cases, the problems related to *waqf* around the Islamic countries such as the regulation problems in Bangladesh and Indonesia (Karim, 2010; Syarief, 2021), the managerial problem in Bangladesh (Hasan & Siraj, 2016), the human resources problems in Malaysia (Ali et al., 2018), the society-related problems in Jordan (Almanaseer & Bashar, 2014), the financial problems in Indonesia and Nigeria (Nasution & Medias, 2020; Zauro et al., 2020).

Context and Literature Review

Waqf, or in plural form *Awqaf*, is derived from Arabic. There are a lot of literal definitions of *waqf*, such as “to contain, preserve, or stop” (Aldeen et al., 2020), “to prevent” (Çizakça, 1998), and “eternal or sustain” (Ascarya et al., 2022). In other words, the literal meaning of *waqf* can be concluded as something static yet sustainable. Technically, Imam Abu Hanifah.¹ They defined *waqf* as the retention

¹ Abu Hanifah is one of the classical scholars who found an Islamic school of thought. His thought became a pathway (madhab) to interpreting

of specific things in the donor’s ownership and the charitable dedication of the profits to the poor or other suitable recipients (Zain et al., 2019). Kuran (2001) defined *waqf* as an independent trust formed under Islamic law by a living person to provide perpetual social benefit. The unique characteristic distinguishing *waqf* from other instruments, such as *zakat* (obligatory almsgiving) and *sadaqat* (voluntary charity), is the eternity of the assets. The primary features of *waqf* that cannot be found in other Islamic social finance are perpetuity, irrevocability, and inalienability (Mohammad & Iman, 2006). In other words, *Waqf* assets cannot be terminated, canceled, transferred, or sold to a third party once they are created. Essentially, the *waqf* implementations around the Islamic world are relatively identical, regardless of the diversity in theory, practice, and legal approach (Rosadi et al., 2018; Rothstein & Broms, 2013).

Islamic law (sharia) for his students and followers. The followers are called as Hanafiyah. Later, it becomes one of the four biggest followed madhabs in the world, alongside Syafi’iyah, Malikiyah, and Hambaliyah.

The eternity of *waqf* assets as its unique characteristics ironically leads to underdeveloped *waqf* properties and negatively affects the development of *waqf* property, which in turn causes stagnation of the Islamic charities (Zulkhibri, 2017). The obsolete Fiqh (Islamic jurisprudence) interpreting *waqf* is one of the problems regarding unproductive *waqf* lands. Thus, the concept of *waqf* perpetuity and inalienability need to be reexamined, and the concept of perpetuity proposed to be changed to the perpetuity of dedication and value rather than constrained only to the perpetuity of assets. The interpreted religious concept based on the old theory of religious text without deep comprehension would have produced the legal framework also based on the old theory of religious text and recommended revisiting it (Puad et al., 2014). Table 1 summarizes key challenges in the literature regarding *waqf* land development across various regions globally.

Waqf regulations pose challenges within the realm of *waqf*, as evidenced by prior research conducted in Islamic countries such

Table 1
Criteria of waqf problem from obtained literature

Aspect	References
Regulation	Karim, 2010; Mohammad & Iman, 2006; Syarief, 2021
Managerial	Ali et al., 2018; Fauzi et al., 2022; Ihsan & Ibrahim, 2011; Ismail et al., 2015; Karim, 2010; Zulkhibri, 2017
Technical	Amin & Nurdin, 2020; Zulkhibri, 2017
Human resources	Ihsan & Ibrahim, 2011; Zulkhibri, 2017
Financial	Mohsin, 2013; Nasution & Medias, 2020; Thaker & Pitchay, 2018; Zauro et al., 2020
Society	Ahmad, 2019; Almanaseer & Bashar, 2014; Fauzi et al., 2022; Haneef et al., 2017; Huda et al., 2014; Puad et al., 2014
Institutional	Ayuniyyah et al., 2019; Haneef et al., 2017

Source: Compiled by authors from various sources

as Bangladesh (Hasan & Siraj, 2016; Karim, 2010), Malaysia (Jalil, 2020), and Indonesia (Syarif, 2021). In Indonesia, although the *Waqf* Act no.41/2004 was established with a philosophical, socio-historical, and juridical foundation (Rosadi et al., 2018), the implementation of *waqf* falls short of the ideal expectations (Fauzi et al., 2022; Syarif, 2021).

The role of *nazirs* (*waqf* managers) contributes to problems due to managerial, human resources, and technical-administrative issues (Fauzi et al., 2022). The problems arise from unprofessional management (Ali et al., 2018; Ihsan & Ibrahim, 2011; Ismail et al., 2015) and lack of transparency, including bribery (Karim, 2010; Zulkhibri, 2017). From a technical-administrative perspective, challenges arise from an inadequate administration system, including a traditional approach with limited utilization of information technology (Ali et al., 2018; Fauzi et al., 2022; Ihsan & Ibrahim, 2011). This poor administration leads to numerous unregistered *waqf* lands and potential conflicts over land ownership, eroding trust and resulting in a decline in the number of *waqf* lands.

In addition to internal factors, external factors also contribute to *waqf* problems. Institutional issues stem from weak inter-institutional coordination in *waqf* land development. In Indonesia, the overlapping roles of the Indonesian *Waqf* Board (BWI) and the *Waqf* Directorate of the Ministry of Religious Affairs resulting confusion among *waqf* institutions (Haneef et al., 2017). Strengthening government involvement,

political will, and advanced regulation regarding the role of BWI are necessary (Ayuniyyah et al., 2019).

The societal aspect can also pose significant challenges in *waqf* development. Prospective donors, who are public or community members, should understanding or be aware of *waqf*, differentiating it from other forms of Islamic social finance. Research indicates a low level of awareness among Muslims in Indonesia (Haneef et al., 2017) and Malaysia (Puad et al., 2014). *Waqf* is often mistakenly perceived as limited to mosques and graveyards (Haneef et al., 2017). Furthermore, low public trust in *waqf* institutions and issues with managers impede the development of *waqf* lands (Ahmad, 2019; Fauzi et al., 2022; Huda et al., 2014).

Problem Classification and Prioritization

There are numerous kinds of research regarding *waqf* among scholars nowadays. However, the studies regarding *waqf* were dominated by non-empirical studies, where 53 and six out of 104 papers from Scopus-indexed journals were descriptive and conceptual papers, respectively (Rusydia, 2019). Sukmana (2020) enhanced the insight using a critical assessment of *waqf* literature from the major scientific publishers and found that 37 papers used the normative approach, and the remaining 26 papers were focused on the empirical study of *Awqaf*. The current body of research on *waqf* primarily consists of non-empirical studies, limiting the availability of empirical

evidence. A significant portion of studies are descriptive or conceptual, failing to provide a comprehensive framework for understanding *waqf* issues. There is a strong need for studies incorporating empirical evidence to address this gap. Furthermore, existing research lacks coherence and fails to establish interconnectedness among the identified problems. Therefore, conducting a fundamental study to prioritize and classify *waqf* land-related problems is essential. This study proposes using the analytic networking process (ANP), which organizes complex problems into homogeneous clusters. By utilizing ANP, the study aims to identify key issues, establish priorities, explore alternative solutions, and provide optimal policy recommendations for stakeholders. The findings can serve as a valuable foundation for generating effective long-term strategies to address *waqf* land problems. Additionally, recommendations based on this study can be shared with relevant stakeholders, including the government, *waqf* managers (nazirs), and the Indonesia *Waqf* Board (BWI), to guide policy decisions and promote optimal utilization of *waqf* land. It should be noted that previous studies employing the ANP method have focused on *waqf* issues from the perspective of *waqf* subjects, such as nazirs, wakifs, and managers (Fauzi et al., 2022; Huda et al., 2017), without directly categorizing problems based on regulatory, financial, technical, managerial, and other elements.

MATERIAL AND METHODS

This research mainly employed one multi-criteria decision-making (MCDM) method

called the Analytic Network Process (ANP). The ANP method was first introduced and developed by (Saaty, 2004) as an extended version of the Analytic Hierarchy Process (AHP) designated for overcoming more complex problems. The ANP is a comprehensive approach measuring relative things using an absolute scale to solve multidimensional problems in a multi-criteria setting of tangible and intangible criteria based on the judgments of the experts in the field (Ascarya et al., 2022; Saaty, 2004). It is non-parametric and non-Bayesian in nature. The ANP expresses specific problems in a network where the elements of the same cluster are compared among themselves rather than in a hierarchy like AHP. The main purpose of the ANP is to opt for the best alternative among multiple decision aspects or criteria and pair comparison of the weight of the component (Ayağ & Özdemir, 2009; Khan et al., 2020). The ANP steps and process are shown in Figure 1.

The ANP method used in this research consists of three stages. The first stage is the decomposition stage. This stage aims to identify problems, solutions, and strategies for preparing the construction of the ANP framework. Firstly, the researchers conducted a literature review to identify and develop a possible ANP framework based on theoretical and empirical evidence. Secondly, the proposed framework was presented in in-depth interviews and focus group discussions (FGDs) sessions to validate it with three experts and three practitioners in the *waqf* field (Table 2).

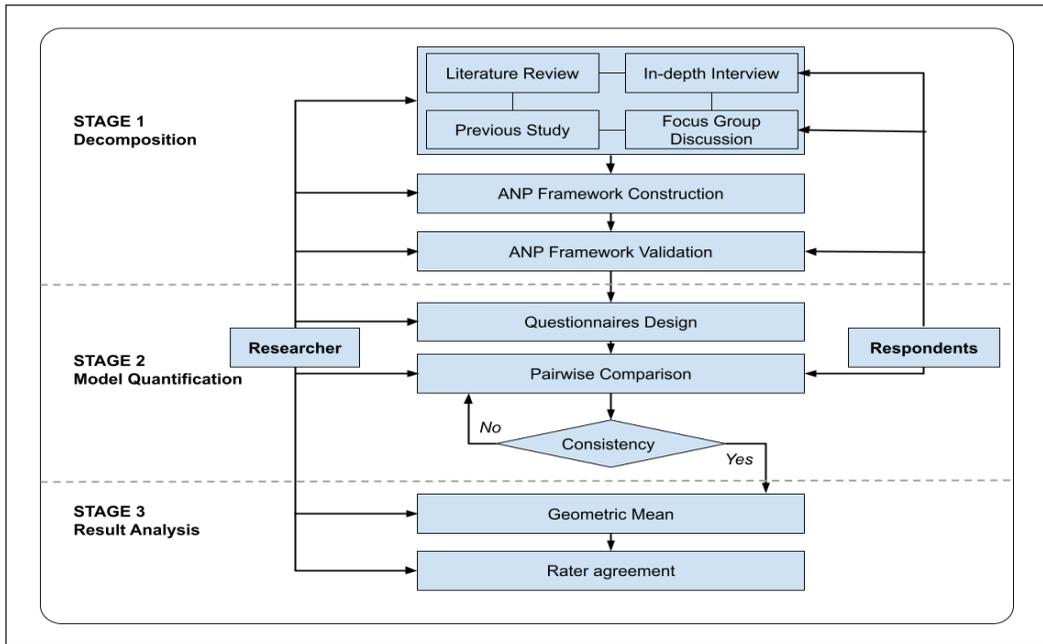


Figure 1. ANP research stages (Source: Ascarya et al., 2022, p. 387)

Table 2
The research participants

	Role	Background	Total Person
Experts	National-level association manager	Top manager of Central BWI	1
	Province-level association manager	East Java Province BWI Manager	1
	National level Regulator	The Ministry of Religious Affairs employee in the <i>Waqf</i> regulation department	1
Practitioners	City level Nazir	Head of Surabaya City Nazir	1
	Province level Nazir	Head of Central Java Province Nazir	1
	Institutional level Nazir	Head of Gontor Islamic Institute Nazir	1

Source: Processed data

The selection of respondents applies the purposive sampling method with several criteria, including (1) the *waqf* expert from *waqf* regulators and (2) the practitioners must belong to a professional Nazir. The experts were the top managers from central BWI, East Java Province BWI, and the Ministry of Religious Affairs employees

in the *Waqf* regulation department as regulators' representatives. Meanwhile, the practitioners were at least the head level of nazirs from Surabaya City, Central Java province, and the Gontor Islamic Institute. They were selected as participants considering their deep understanding of *waqf* in Indonesia and were expected

to provide the best information for this research objective.

The second stage is model quantification. This step prepares the ANP model framework and creates pairwise comparison questionnaires drawn from the first stage. Then, the researcher calculates the geometric mean and a rater agreement. This stage uses designed questionnaires and ANP Saaty’s (2004) scale measurements (Table 3).

The third stage is the analysis of the result. The data is processed through *Superdecision* software and Microsoft Excel to achieve quantification results, calculating the geometric mean and rater agreement. Rater agreement is a measure that shows the respondents’ suitability level (R1-Rn) to a problem in one cluster. The tool used to measure the rater agreement is Kendall’s Coefficient of Concordance ($W; 0 < W < 1$), where $W = 1$ indicates a perfect fit. The geometric mean is an average calculation showing a particular tendency or value (Ascarya et al., 2022). This step

also comprises result interpretations with related literature.

RESULTS

The first ANP stage identified the problems, solutions, and strategies regarding *waqf* development in Indonesia. This stage aims to decompose the complexity and deduce it into several clusters or aspects. Through a literature review, the researcher identified the following problem aspects: regulation, managerial, technical, human resources, financial, society, and institutional. The next step was to present these findings to participants through in-depth interviews to seek confirmation. The participants confirmed that the problems in *waqf* land development are related to those aspects. As mentioned by The Ministry of Religious Affairs employee in the interview:

“... Yes, I could not agree more. We believe in scientific things and that is what happens in the fields. Umm, I think, it is what it is....”

Afterward, the FGD process broke every cluster problem into the listed criteria along with the solutions. The summaries of the results of this session are mentioned in Table 4 in the criteria of problems (column 2) and criteria of solution (column 3). The strategy recommendations concerning *waqf* land development in Indonesia also ensure the decomposing stage. This stage also resulted in the construction framework (Figure 2) used for the following stages.

Table 5 shows that the Management aspect is the topmost priority problem in

Table 3
Saaty’s fundamental scale of absolute numbers

Intensity of Importance	Definitions
1	Equal importance
2	Weak
3	Moderate importance
4	Moderate plus
5	Strong importance
6	Strong plus
7	Very strong
8	Very, very strong
9	Extreme importance

Source: Saaty, 2004, p. 6

Table 4
Decomposition stage result

Aspects	Criteria of problems	Criteria of solutions
Regulation	1) less comprehensive; 2) unintegrated regulations; 3) obsolete Fiqh; 4) vague regulation for society	1) comprehensive regulation; 2) socialization of regulation; 3) integration of regulation; 4) include contemporary Fiqh
Managerial	1) no blueprint; 2) unprofessional management; 3) lack of transparency; 4) lack of networking	1) blueprint; 2) professionalism of management; 3) responsible to the public; 4) optimizing network
Technical	1) bad administration; 2) lack of IT; 3) non-innovative project; 4) idle <i>waqf</i> land; 5) conflict on <i>waqf</i> land	1) good administration; 2) utilize the IT; 3) economic project; 4) innovation of empowerment; 5) <i>waqf</i> certification
Human resources	1) unprofessional human resources.; 2) low qualifications; 3) low managerial; 4) bad reward systems	1) standardization of HR qualification; 2) training and coaching; 3) certification of nazir; 4) good reward system
Financial	1) limited finance; 2) depend on government funds; 3) lack of financing model; 4) lack of financing	1) innovation of financial resources; 2) research in contemporary; 3) training in financial resources
Society	1) low public trust; 2) perceived only for spiritual activity; 3) lack of public awareness	1) standardization of <i>waqf</i> institution; 2) socialization and education
Institutional	1) Non-optimal BWI role; 2) no brilliant project from BWI; 3) non-optimal government role	1) optimization of BWI role; 2) brilliant and implementable project; 3) regulatory support; 4) fund support
Strategy recommendation	-	1) reforming and strengthening the <i>waqf</i> regulations; 2) reforming and strengthening the <i>waqf</i> governance; 3) strengthening the roles of <i>waqf</i> -related institutions

Source: Processed data

developing *waqf* land in Indonesia, with a combined (All) geometric mean value of 0.21. Furthermore, the financial aspect becomes the second priority indicator with an average value of 0.16, Human resources with a value of 0.11, Institutional with an average score of 0.10, Technical with an average score of 0.10, society with an average score of 0.0838, and the Regulation aspect is the last priority in elaborating the problem of land *waqf* development in Indonesia with an average value of 0.05. This indicator's rater agreement (*W* value) is 0.24, which is on a weak to moderate scale,

indicating that the experts' answers to the Aspects cluster elaborating on the problem of land *waqf* development in Indonesia widely vary.

The following stages are model quantification using designed questionnaires and ANP Saaty's (2004) scale measurements. Afterward, the scores based on the previous stages were calculated and analyzed using geometric mean and rater agreement. The geometric mean (GM) consists of three estimations from experts, practitioners, and combined (all), which is the average score from both estimations. The results

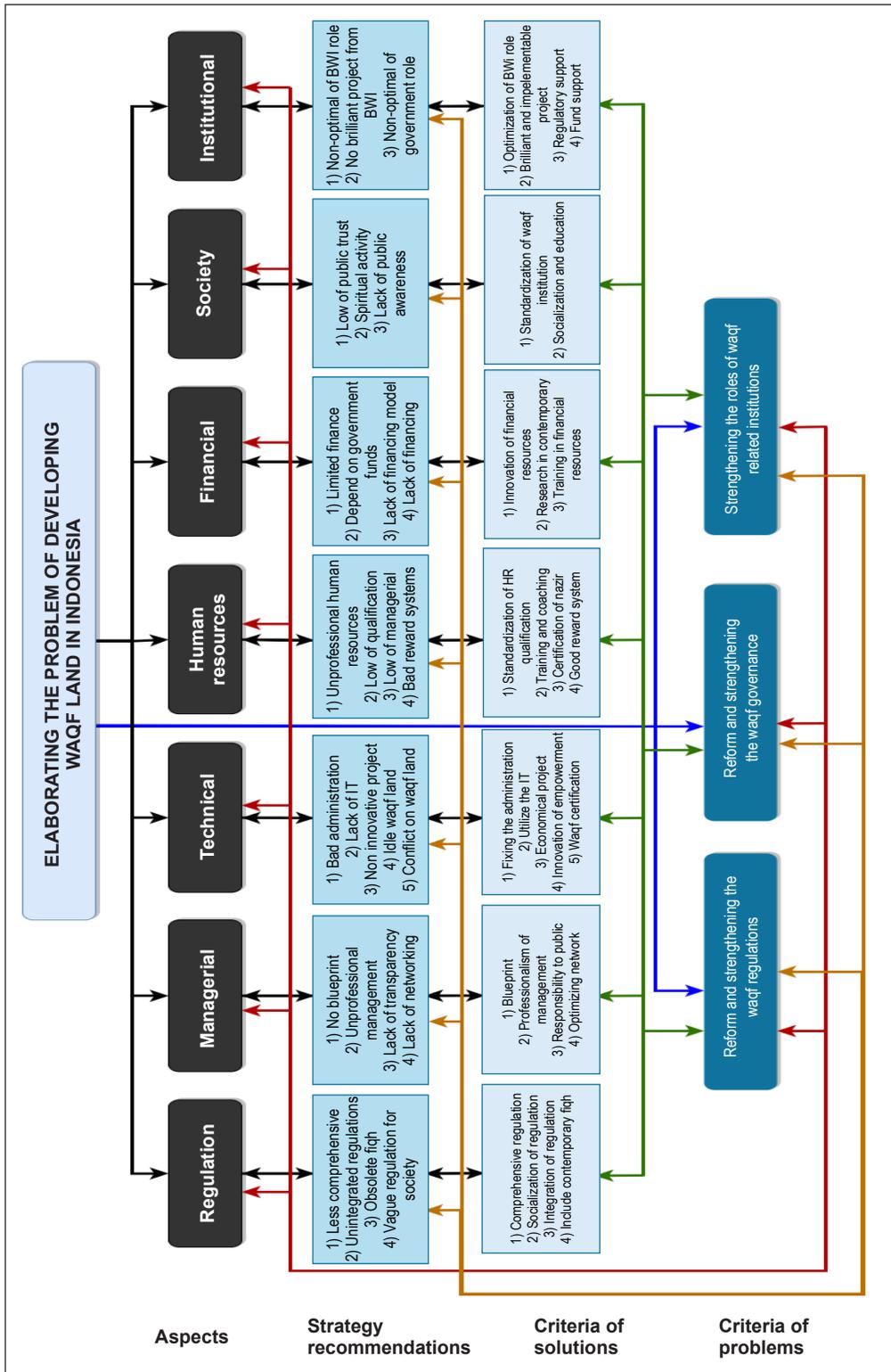


Figure 2. ANP construction framework on waqf development (Source: Processed data)

Table 5
ANP results on waqf aspects

Aspects	ALL		Expert		Practitioners		Rater agreement
	GM	Rank	GM	Rank	GM	Rank	(<i>W</i> value)
Regulation	0.05	7	0.07	7	0.05	6	0.24
Managerial	0.21	1	0.20	1	0.22	2	
Technical	0.10	5	0.09	5	0.10	4	
Human Resources	0.11	3	0.08	6	0.16	3	
Financial	0.16	2	0.12	4	0.23	1	
Society	0.08	6	0.16	3	0.04	7	
Institutional	0.10	4	0.17	2	0.07	5	

Source: Author’s ANP analysis

are shown in Table 4, Table 5, and Table 6. Table 4 shows seven aspects of the problem of *waqf* land development in Indonesia, including institutional, societal, financial, human resource, technical, managerial, and regulatory.

Table 6 presents the ANP results for problem criteria in each aspect. The top priority financial problem was “limited finance,” with a combined geometric mean (GM) of 0.33. The least prioritized was “dependence on government funds” (GM = 0.09). The rater agreement (*W* value) was 0.19 (weak to moderate), indicating relatively varied participant responses. From the human resources perspective, “unprofessional human resources” had the highest ranking (GM = 0.30), while “bad reward system” received the lowest (GM = 0.12). This cluster’s *W* value (0.23) indicated a wide variation in informant responses. The top institutional problem was the “non-optimal BWI role” (GM = 0.38), with a *W* value 0.38 suggesting slightly varying responses. “Unprofessional management” was the next most prioritized managerial problem (GM = 0.29), while

“no blueprint” received the lowest ranking (GM = 0.15). This cluster’s *W* value (0.10) indicated wide variation in informant responses. The regulation aspect’s top problem was “regulations not understood by society” (GM = 0.41), with “obsolete Fiqh” receiving the lowest ranking (GM = 0.12). The *W* value (0.46) indicated slightly varied participant responses. The societal perspective prioritized “*waqf* perceived only for spiritual activity” (GM = 0.38). This aspect’s *W* value (0.26) indicated relatively varied responses. Technical problems prioritized “bad administration” (GM = 0.25) and “conflict on *waqf* land” (GM = 0.18). This cluster’s *W* value (0.23) indicated relatively varied responses.

Table 7 presents the ANP results for the criteria of solutions in each aspect. Regarding financial solutions, the top priority was innovating financial resources (GM = 0.33), whereas research on contemporary financial sources received the lowest ranking (GM = 0.09). This cluster’s rater agreement (*W*) was 0.05, indicating a “weak” agreement, suggesting considerable divergence in participants’ answers. From the human

Table 6
The ANP results on the criteria of waqf problems

Aspects	Criteria of problems	ALL		Expert		Practitioners		W Value
		GM	Rank	GM	Rank	GM	Rank	
Financial Problem	Limited Finance	0.33	1	0.25	1	0.43	1	0.19
	Depend on Government's Fund	0.09	4	0.17	2	0.05	4	
	Lack of Financing Model	0.20	3	0.25	1	0.17	3	
	Lack of Financing	0.28	2	0.25	1	0.32	2	
Human Resource Problem	Unprofessional HR	0.30	1	0.29	1	0.31	1	0.23
	Low of Qualification	0.23	3	0.20	3	0.27	2	
	Low of Managerial	0.23	2	0.23	2	0.24	3	
	Bad Reward System	0.12	4	0.20	4	0.07	4	
Institutional Problem	Nonoptimal of BWI Role	0.38	1	0.53	1	0.27	2	0.34
	Non-Brilliant of BWI Project	0.17	3	0.27	2	0.12	3	
	Non-optimal Government Role	0.28	2	0.15	3	0.53	1	
Managerial Problems	No Blueprint	0.15	4	0.23	2	0.10	4	0.10
	Unprofessional Management	0.28	1	0.22	3	0.37	1	
	Lack of Transparency	0.26	2	0.28	1	0.25	2	
	Lack of Networking	0.18	3	0.20	4	0.18	3	
Regulation Problems	Less Comprehensive	0.16	2	0.21	2	0.12	3	0.46
	Unintegrated Regulation	0.15	3	0.17	3	0.12	2	
	Obsolete Fiqh	0.12	4	0.14	4	0.11	4	
Society Problems	Not Understood by Society	0.50	1	0.41	1	0.61	1	0.26
	Low Public Trust	0.16	3	0.15	3	0.18	3	
	Spiritual Activity	0.38	1	0.38	2	0.37	1	
Technical Problems	Lack of public awareness	0.31	2	0.40	1	0.24	2	0.23
	Bad Administration	0.25	1	0.26	1	0.25	1	
	Lack of IT	0.14	4	0.21	3	0.10	5	
	Non-Innovative Project	0.14	3	0.13	4	0.15	4	
	Idle Waqf Land	0.23	2	0.26	2	0.22	2	
	Conflict on Waqf Land	0.14	5	0.10	5	0.19	3	

Source: Author's ANP analysis

resources perspective, Nazirs certification was highly prioritized (GM = 0.27), while a good reward system received the lowest ranking (GM = 0.11). This cluster's W value (0.13) indicated considerable divergence in informant responses. Optimizing the BWI role (GM = 0.37) emerged as the top priority for institutional solutions, with a W value of 0.41 suggesting less varied responses

compared to other aspects. In managerial solutions, responsiveness to the public received the highest ranking (GM = 0.31), while optimizing the network was the least prioritized (GM = 0.15). This cluster's W value (0.13) indicated moderate divergence in informant responses. Socialization of regulations (GM = 0.44) was the topmost priority for regulations, with the inclusion

Table 7
ANP result of aspect and criteria of solutions

Aspects	Criteria of Solution	ALL		Expert		Practitioners		W
		GM	Rank	GM	Rank	GM	Rank	
Financial	Innovation of Financial Resource	0.39	1	0.28	2	0.53	1	0.05
	Research in Contemporary	0.27	3	0.35	1	0.21	3	
	Training in Financial Resources	0.28	2	0.35	1	0.22	2	
Human Resource	Standardization of HR Qualification	0.22	3	0.20	3	0.23	2	0.13
	Training and Coaching	0.27	2	0.23	2	0.31	1	
	Nazirs certification	0.27	1	0.33	1	0.22	3	
	Good Reward System	0.11	4	0.14	4	0.10	4	
Institutional	Optimizing BWI Role	0.37	1	0.36	1	0.39	1	0.41
	Brilliant and Implementable Project	0.27	2	0.31	2	0.23	3	
	Regulatory Support	0.18	3	0.12	4	0.27	2	
	Fund Support	0.09	4	0.13	3	0.07	4	
Managerial	Blueprint	0.22	2	0.23	3	0.21	2	0.13
	Professionalism of Management	0.22	3	0.24	2	0.20	3	
	Responsible to Public	0.32	1	0.30	1	0.33	1	
	Optimizing networks	0.17	4	0.17	4	0.18	4	
Regulation	Comprehensive Regulation	0.16	2	0.21	2	0.12	4	0.37
	Socialization of Regulation	0.44	1	0.37	1	0.53	1	
	Integration of Regulation	0.15	3	0.18	3	0.12	3	
	Include Contemporary Fiqh	0.12	4	0.12	4	0.13	2	
Society	Standardization of Waqf Institution	0.37	2	0.35	2	0.41	2	0.00
	Socialization and Education	0.52	1	0.53	1	0.51	1	
Technical	Fixing Administration	0.25	1	0.28	1	0.23	1	0.19
	Utilize the IT	0.17	4	0.20	3	0.15	5	
	Economical Project	0.18	3	0.16	4	0.19	2	
	Innovation of Empowerment	0.12	5	0.08	5	0.18	3	
	Waqf Certification	0.19	2	0.24	2	0.16	4	
Strategic	Regulation	0.34	1	0.37	1	0.33	2	0.05
	Governance	0.26	3	0.30	2	0.24	3	
	Institution	0.34	2	0.29	2	0.40	1	

Source: Author's ANP analysis

of contemporary Fiqh receiving the lowest ranking (GM = 0.12). A W value of 0.3694 suggested moderate variability in participants' answers. Socialization and education (GM = 0.37) emerged as the top priority for society, with a W value of 0.00 indicating remarkable agreement among participants.

Fixing administrations (GM = 0.25) received the highest ranking for technical solutions while utilizing IT received the lowest (GM = 0.70). This cluster's W value (0.19) indicated relatively diverged responses.

The strategy recommendations aspect contains three main strategies: firstly,

reforming and strengthening the *waqf* regulations; secondly, reforming and strengthening the *waqf* governance; and thirdly, strengthening the roles of *waqf*-related institutions. The most considerable strategy was regulation, which reforms and strengthens the *waqf* regulations ($GM=0.35$). The following strategy recommendation is strengthening the roles of *waqf*-related institutions, and the least considerable was reforming and strengthening the *waqf* governance with geometric mean values of 0.34 and 0.26, respectively. The W value of the strategy recommendations cluster was 0.05, indicating that the participant's answers were relatively diverged.

DISCUSSION

Priority Issues on *Waqf* Development in Indonesia

The managerial issue in *waqf* development in Indonesia has become the most considerable aspect over the other aspects such as institutional, society, financial, human resource, technical, and regulation. This finding aligned with prior research on *waqf* management (Ali et al., 2018; Beik et al., 2021; Ihsan & Ibrahim, 2011). The most dominant problem criterion in the managerial aspect was unprofessional management. Ali et al. (2018) mentioned that professional management and effective administration are essential yet highly impactful tools. Ihsan and Ibrahim (2011) compared two *waqf* institutions in Indonesia and showed that more professional management would result in more achievement than less professional ones. The achievements are

in terms of the number of collections and the more significant contribution to *waqf* development in Indonesia's Muslim society.

The second priority issue on *waqf* land development in Indonesia was a financial issue, where the essential criteria of the problem were the financial limit for developing *waqf*. This finding was consistent with previous literature stating that financial resources are essential in developing *waqf* (Mohsin, 2013; Nasution & Medias, 2020; Zauro et al., 2020). Limited finances in developing *waqf* are due to limited financial resource constraints (Nasution & Medias, 2020; Thaker & Pitchay, 2018). Henceforth, some researchers proposed alternative financial models regarding *waqf* financing, such as crowdfunding (Thaker & Pitchay, 2018) and integration with microfinance (Mohsin et al., 2016).

The third priority issue on *waqf* development was human resources problems, where the most substantial problem was unprofessional human resources. This result is consistent with the priority problem, which is unprofessional management. These two issues are supposed to be highly intercorrelated because professional management is derived and driven by professional and competent workers. Ismail et al. (2015) stated in their paper that one of the issues in *waqf* development is the shortage of competent human resources. A lack of professional workers can slow the registering of *waqf* land and potentially disorganize the process of *waqf* land development. Hence, it is necessary to recruit and restructure workers

into professionals. In addition, Fauzi et al. (2022) have identified low professionalism as the topmost priority problem in Nazir's cluster viewpoint.

The remaining problems were consecutively identified as the least prioritized: institutional, societal, technical, and regulation problems. Each aspect has its topmost criteria of problem such as non-optimal BWI role in institutional Aspect; The *waqf* concept is perceived only for spiritual activity such as for building a mosque or cemetery, and is the highly considered as the main problem in society problem viewpoint. Bad administration is the most considerable technical problem of *waqf* development. These problems might not be considered the most considerable problem in this research. However, the topmost criteria of problems should be considered for developing *waqf* land in Indonesia.

Priority Solutions on *Waqf* Development in Indonesia

The highest priority of solution from a managerial aspect concluded by this research was that all *waqf* institutions should be responsible to the public. All *waqf*-related institutions, such as Nazir, BWI, and the Indonesian Ministry of Religious Affairs, should be transparent and accountable as a matter of their responsibility to the public (Huda et al., 2014; Ihsan & Ibrahim, 2011).

The most considerable solution from the financial aspect is an innovation of financial resources. This solution answered the financial limit problem where innovation

is more important than depending on government funds. Examples of financial innovation regarding financial resources are crowdfunding *waqf* (Suhaili & Palil, 2017; Thaker & Pitchay, 2018), Sukuk linked *waqf* (Musari, 2019), venture *waqf* (Khan, 2019), integrating *waqf* with crowdfunding and blockchain (Mohsin & Muneeza, 2019), and the cash *waqf* with all variations which is gaining popularity in recent decades (Aldeen et al., 2020).

The foremost solution regarding the human resources problem is Nazir's certification. The finding is consistent with previous literature that mentions the importance of Nazir certification (Fauzi et al., 2022). This solution can be the answer to the problem of unprofessional human resources. The nazir certification will ensure that the nazir is a professional and a competent person to manage *waqf*. The certification itself is not a standalone circumstance, and it should be reinforced by intensive training for the prospective nazir or individual unprofessional nazir to become a productive *waqf* manager (Ascarya et al., 2022; Huda et al., 2018).

The least prioritized solutions from the aspects cluster were institutional solutions, society problems, technical problems, and regulation problems. The topmost solution criteria from those aspects were optimizing BWI's role, socialization, and education to society, fixing the administrations, and socializing the regulation consecutively. Although these solutions were not the most prioritized based on aspect priority rank, they can still be considered.

Priority Strategy

The proposed strategy recommendation obtained by this research consists of three main strategies: firstly, reforming and strengthening the *waqf* regulations; secondly, reforming and strengthening the *waqf* governance; and thirdly, strengthening the roles of *waqf*-related institutions. The ANP process selected the most considerable strategy in the regulation aspect: reforming and strengthening the *waqf* regulations. This finding was consistent with Beik et al. (2021), who found that regulation adjustment is the best way to increase the *waqf* land productivity and economic outcome. In addition, Satyawati & Firdaus (2018) also support this finding by stating that proper regulation will promote *waqf* management to be more applicable and practical because the *waqf* regulation itself is the institutional nazir's main strength in managing *waqf* land productively. The regulation adjustment or even reformation is every related *waqf*-parties aspiration; however, the Government is the main party to issue the regulations. Hence, government involvement in the *waqf* regulation is a sign of supporting all *waqf* parties' aspirations.

CONCLUSION

This research aims to elaborate on the main problems of developing *waqf* land in Indonesia and provide identifiable empirical results of the main problem, solutions, and strategy as a framework to guide stakeholders to produce policy recommendations appropriately. By using the ANP method for decomposing the complexity, this

study resulted in the main issue, problems, solutions, and strategy recommendations. The main issue in developing *waqf* land in Indonesia is the managerial problem, which is the highest priority, followed by financial and human resources problems. The remaining issues were identified as the least prioritized problems: institutional, societal, technical, and regulation. Each aspect of the issue contains criteria for problems. The most considerable criteria are unprofessional management, financial limit, unprofessional human resources, non-optimal BWI role, the *waqf* concept being perceived only for spiritual activity, and bad administration consecutively. The topmost solutions to problems in this research were that all *waqf* institutions should be responsible to the public, innovate financial resources, nazir certification, optimize BWI role, society education, fix the administrations, and socialize the regulation. The strategy recommendation derived from the experts through this research was firstly, reforming and strengthening the *waqf* regulations; secondly, reforming and strengthening the *waqf* governance; thirdly, strengthening the roles of *waqf*-related institutions, where the most considerable strategy was in the regulation aspect, which is reforming and strengthening the *waqf* regulations. As a regulator, the government should be actively involved in reforming or adjusting the *waqf* regulations.

Research Implications

This study contributes scientifically by providing more empirical research on

waqf rather than a normative or conceptual approach. Most prior empirical studies have concluded partially based on the specific problem or the proposed solutions. It has left the results in *waqf*-related topics with less identifiable frameworks. This study decomposes the complexity using ANP to produce an identifiable framework for developing *waqf* land in Indonesia. The framework includes the main problem, solutions, strategy, and priority. The framework can be optimized as a guide for stakeholders to produce policy recommendations appropriately.

This research finding identified unprofessional management as the most significant challenge hindering *waqf* land development in Indonesia. Hence, it can be a practical guideline for *waqf* institutions to improve their performance by prioritizing competency and accountability within their management. It can be achieved through a combination of targeted training, certification programs, and the implementation of a robust governance system. This study's findings also serve as a foundation for developing a policy recommendation framework highlighting managerial reforms' significance and advocating for regulatory changes to promote effective *waqf* land development in Indonesia.

Research Limitations

This study's findings are limited to the Indonesian context and may differ from other countries if the same method is applied directly. Socio-economic, cultural, and institutional contexts might produce

different results. Regardless of the ANP's advantages for decomposing complexity, potential bias may occur because the method relies on judgment, and even experts are not free from subjective bias. Further research can exploit other methods, such as fuzzy logic or sensitivity analysis, in combination with ANP to improve accuracy. A longitudinal investigation can be exploited to evaluate the findings and changes because of challenges and opportunities that may arise in the future. Comparative research, in which two or more groups of experts analyze the same problem(s), can be beneficial to increase the accuracy of the findings and reduce the bias that might occur during the analysis.

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