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Exploring the Impact and Challenges of the Reading and Writing Literacy Programme: Enhancing Student Literacy Skills

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ABSTRACT

This research analyses the implementation of the reading and writing literacy programme in an Indonesian laboratory school situated in a university. The educational effect of the implementation and the conditions affecting the implementation process are investigated in this study. Although the implementation of the School Literacy Movement (Gerakan Literasi Sekolah/GLS) has been done in most of the schools in Indonesia, the effects of the movement differ greatly between one another, and empirical data on the laboratory schools, which act as centres for educational innovations, are scant. An embedded single-case qualitative research method was employed, and the subject of the investigation was the Laboratory Primary School of Universitas Negeri Malang, along with a contextual reference group of public primary schools in the same cluster. From these findings, it is clear that the project has brought about multidimensional outcomes such as enhanced reading literacy skills, improved writing literacy skills, and development of higher order skills including critical thinking, communication, and learner autonomy. However, the project implementation has been influenced by four major multidimensional challenges which include challenges related to structures and reading materials and institutional support, challenges related to instructions such as literacy instruction and teachers' development, challenges related to students which have been mainly linked to their motivation and reading skills, and lastly, challenges related to technology which have been related to digital materials and its pedagogical use.

Keywords: Indonesia, laboratory school, qualitative case study, reading and writing literacy, School Literacy Movement

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INTRODUCTION

The reason why literacy has always been viewed as an integral part of educational development is that it helps one gain knowledge, exchange ideas, and take an active part in the life of society. Today, however, literacy encompasses much more than just reading and writing skills. With the advancement of technology, the presence of huge amounts of information, and the necessity to think critically, literacy can be viewed as a complex of skills including critical reading, written communication, information assessment, and knowledge creation (Chourio-Acevedo et al., 2024; Kalantzis & Cope, 2024). These skills are necessary for any student who wants to succeed in modern-day studies.

Given the significance of this strategic function, governments and international organisations have made literacy central to education reforms, and large-scale evaluations have consistently shown that there are significant differences in the literacy achievements of students in different nations. As such, the enhancement of literacy is a global concern in education rather than one which is regionally focused. However, there are still challenges that many nations face in establishing sustainable literacy programmes, some of which include lack of learning materials, poor facilities, limited professional development for teachers, and inconsistent programme implementation.

In Indonesia, the enhancement of the literacy levels of students has become an important agenda due to their comparatively poor performance in global assessment tests, including PISA. The Ministry of Education has initiated a School Literacy Movement (Gerakan Literasi Sekolah/GLS), where schools are encouraged to develop a sustainable culture of reading through systematic activities, which include the fifteen minutes reading period before any teaching activity. In addition, literacy has been included in the Merdeka Curriculum that focuses on higher-order thinking skills and independent learning (Kartikasari & Nuryasana, 2022).

Nonetheless, despite all these policies, the implementation of these policies remains inconsistent. There are some Indonesian primary schools which are still facing some problems, such as the absence of reading materials, facilities, funding, and varied capacity of teachers in implementing literacy programmes, thus creating discrepancies between policy and practice in classrooms (Novarina et al., 2019). This highlights the need for empirical research on the implementation of literacy programmes in certain schools.

One such context where insights could be gained is the Laboratory Primary School of Universitas Negeri Malang. As a laboratory school of the university, it not only functions as an elementary school but also as an experimental ground for innovations and developments in education. In this context, there have been consistent practices of structured reading and writing exercises in (Gerakan Literasi Sekolah/GLS) alongside reflective discussions, student-centred learning, and use of technology. Despite being a resourceful and innovative

school, even within such a context, it has been seen that there are issues with students' reading motivation and confidence at the time of joining the programme and also with the continuous process of literacy activities due to reading materials and methods used. Thus, it becomes an interesting context to understand what a reading and writing literacy programme can accomplish as well as face problems in doing so.

Research Problem

This discussion highlights a significant issue in the teaching of literacy. Despite the fact that the School Literacy Movement as well as Merdeka Curriculum have made reading and writing literacy a top priority of the country, the results associated with these initiatives do not come automatically after the implementation of these initiatives. It depends whether a literacy programme helps the learners to improve their reading and writing skills based on many institutional aspects including the availability of age-appropriate reading materials, the teaching skills of teachers, motivation and confidence in reading, and the use of technology, and all these factors are quite different across various schools (Kartikasari & Nuryasana, 2022; Novarina et al., 2019).

This becomes even more relevant in laboratory schools at universities, where they are considered to be innovative education institutions and examples for the whole educational system and as such, they should set examples of good practice of literacy. But they also face all the challenges that any other schools do although sometimes they find themselves in a better situation than some others. There is little information from current literature concerning this issue, because it either looks at the outcomes of the literacy programme or at the implementation process, but it has never studied the implementation of such programmes in laboratory schools. And consequently, schools and policy makers looking for examples of successful institutions cannot relate the outcome of literacy programme and the institutional context in which it was achieved and thus evaluate the parts that are applicable and those that require modification.

While there has been much research on the implementation of literacy programmes in Indonesian elementary schools, there are three important gaps that exist. Firstly, there is not much empirical data available on the implementation of the programme in laboratory schools of universities. Secondly, the earlier research done in this area has mostly focused either on literacy success of students or the challenges faced during implementation but very rarely on both at once. Thirdly, there has been very little evaluation of an evidence-based kind done in laboratory schools, which act as innovation centres. There are three aspects of the importance of this study. Theoretical relevance is that this study contributes to the theory of building of reading and writing literacy of laboratory school based on the study of both impact and implementation of the programme. It can be applied in other schools that possess the characteristics of a laboratory school in order to develop

literacy in these schools. Policy-wise, this research provides empirical evidence from a laboratory-school perspective for the policy makers of Indonesia or even other developing countries who want to make effective policies regarding literacy and implement them. There are two research questions that guide the study: (1) What is the educational impact of the reading and writing literacy programme on literacy development of the students at the laboratory school? (2) What are the challenges in the implementation of the programme?

LITERATURE REVIEW

Contemporary Perspectives on Reading and Writing Literacy

Literacy in terms of reading and writing has witnessed a significant shift in conceptualisation within the last two decades. In this respect, while historically the definition of literacy referred to accurate decoding and writing, modern views consider it to be a multi-dimensional concept, which allows an individual to interpret information critically, communicate, and solve problems, in addition to participation in more complex social and digital environments (Kalantzis & Cope, 2024; New London Group, 1996). Similar to international organisations like UNESCO and the OECD, literacy is defined as a continuum, which helps individuals develop personally, socially interact, and engage actively.

Recent studies have confirmed this broader definition of literacy education. Specifically, the review of school-level information literacy confirms the shift towards an all-encompassing concept that includes information, digital, critical, and multimodal literacy and suggests the need for better assessment at schools and more comprehensive interventions from primary education (Chourio-Acevedo et al., 2024). Also, theoretical considerations of literacy reveal its shift from an individual skill to a social activity where individuals construct meanings by interacting with other people such as educators, parents, and community members. Under this model, reading and writing are viewed as complementary activities since it is proven that reading and writing use many of the same skills. Thus, teaching reading and writing together helps in improving literacy performance of both activities (Kim & Zagata, 2024; Kim et al., 2025). It has also been found that explicit strategy instruction in writing and reading comprehension results in better outcomes not only in small groups but also when provided to whole classes (Graham et al., 2012; Okkinga et al., 2018). Literacy instruction now implies not just traditional reading and writing practices but also the use of digital and critical literacy.

School-Based Literacy Programmes

Literacy programmes in schools have emerged as the key approach for ensuring that students develop skills in reading and writing and learn to be learners for life. Although literacy policies vary from one country to another, effective programmes exhibit certain similarities in that there is a constant practice of reading, teaching of literacy skills, provision of varied materials, professional development of teachers, and

effective school management. Modern programmes are not limited to classroom activities but are designed as whole-school programmes and are most successful in an institutional context and partnership.

Examples from other countries highlight the above points. In Finland, literacy is infused throughout the curriculum with emphasis on learner independence, extensive reading and equitable access to learning materials; in Australia, there have been improvements in terms of evidence-based reading instruction, monitoring and early intervention; in Singapore, literacy is embedded into the curriculum design process, formative assessment and reading promotion within a bilingual framework. Notwithstanding their differences in education systems, all the above examples show similarities in that literacy is seen as a whole school issue supported by sustained reading and professional development.

In Indonesia, efforts have been made by the government to improve literacy skills through GLS, as well as Merdeka Curriculum. However, despite the success in creating awareness, there are factors such as leaders' capacity, teachers' preparedness, lack of resources, and institution support that affect the process, and there are repeated problems reported in various studies such as lack of time, depletion of reading materials in the classrooms, and lack of teachers' engagement (Kartikasari & Nuryasana, 2022; Novarina et al., 2019). In this regard, laboratory schools create a unique learning environment because they are close to the universities, serving as innovation centres, curriculum testing centres, and teacher training centres, and yet face similar challenges.

Challenges in Literacy Programme Implementation

The success of literacy programmes will not only be influenced by the nature of the curriculum but also by institutional readiness, teaching, engagement of learners, and readiness in technology. Based on findings from both national and international literature, there are four related dimensions within which the issues facing literacy programmes have been categorised. Structural issues deal with such matters as funding, availability of reading materials, library facilities for reading, institutional backing and leadership; lack of resources is especially severe in developing nations, and sustaining literacy involves sustained investment rather than one-time projects. Issues of instruction deal with the abilities of teachers in facilitating critical reading, substantive writing and reflective dialogue; many teachers continue to emphasise the aspects of decoding and fluency, and insufficient teacher professional development makes it difficult to adopt evidence-based pedagogy, even though teacher professional development itself has a positive impact on learners' literacy skills. (Basma & Savage, 2023).

The student-related issues have to do with motivation, engagement, interest in reading, and self-efficacy. It has been found that students' literacy success is highly connected with their motivation

and ability to engage. However, it is not always possible to motivate children when the materials are scarce or when children see activities as some boring tasks. For this reason, various student-centred approaches are recommended because they help to engage students and motivate them to learn (Taboada & Klauda, 2020; Toste et al., 2020). The technological issues include scarcity of resources, the possibility of integrating technology into classroom, and the correct use of technology by students; it should be noted that integrating technology successfully depends on the appropriate infrastructure and pedagogical decisions, and digital literacy can be seen as an extension of reading and writing (Gu & Ericson, 2025; Pangrazio et al., 2020). Table 1 below explain about the conceptual dimensions of challeges in school-based literacy programme.

Research Gap

Literature suggests that literacy programmes in school have positive impacts on literacy skills, engagement in reading, and learning success, and that successful programmes need well-defined leadership, collaboration, appropriate environment, and equitable access to resources. However, there are some drawbacks associated with this research field. First of all, most researchers are focused on evaluating the results of literacy programmes, while they do not investigate the process of their implementation at schools. Second, there is an insufficient amount of evidence collected through university laboratory schools, which are unique because they combine educational, innovative, and developmental functions. Finally, only few works evaluate the relationship between literacy outcomes and structural, instructional, individual,

Table 1
Conceptual dimensions of challenges in school-based literacy programme implementation

Dimension	Analytical Focus	Relevance to the Present Study
Structural	School funding, availability of reading materials, library facilities, reading spaces, institutional support, and leadership.	The school faces continuing needs to expand book collections and reading facilities and to sustain institutional support for literacy activities.
Instructional	Teachers' professional competence, literacy pedagogy, instructional strategies, curriculum integration, and professional development.	Teachers facilitate daily reading, reflective discussion, and literacy integration across learning, requiring continuous pedagogical adaptation.
Student-related	Students' reading motivation, engagement, interest, self-efficacy, autonomy, and participation.	Students are encouraged to select materials, join reflective discussions, and engage actively, though initial motivation and confidence vary.
Technological	Digital literacy, digital learning resources, ICT infrastructure, teachers' digital competence, and technology-supported instruction.	The school gradually integrates digital resources to complement print, while addressing uneven resource quality and students' digital literacy.

and technological aspects of literacy programmes. This research problem is illustrated in Table 2.

METHODS

Research Design

The present research utilised qualitative embedded single-case design (Yin, 2018), where the Laboratory Primary School of Universitas Negeri Malang became the main unit of analysis. The purposeful sampling technique was used to select the Laboratory Primary School of Universitas Negeri Malang as the focal case, since the Laboratory Primary School of Universitas Negeri Malang is a unique setting as a laboratory school of a university that works both as a primary school and an institution for preparing prospective teachers, conducting educational research, developing curricula and evidence-based instruction. For contextual support and confirmation of the findings from the focal case, a contextual reference group of public primary schools in the same cluster was incorporated into the design.

The use of qualitative research design was better suited for answering the research questions, since the research questions were about participants' perspective,

Table 2
Synthesis of representative studies on school-based literacy and how the present study extends them

Study	Context	Main Focus / Finding	Gap Addressed by this Study
Kim and Zagata (2024)	Elementary schools	Systematically integrated reading and writing instruction strengthens both skills, which share common systems.	Examines integrated literacy at the institutional level, including both impact and implementation challenges.
Chourio-Acevedo et al. (2024)	Systematic review (53 studies)	Literacy education integrates information, digital, and critical literacy, and needs stronger school-based assessment.	Provides contextual evidence from a single Indonesian laboratory school.
Gu and Ericson (2025)	K-12 and higher education	AI and digital literacy are increasingly central, but empirical links to instruction remain limited.	Examines conventional reading and writing while considering the role of digital resources in implementation.
Kartikasari and Nuryasana (2022)	Indonesian primary schools	GLS improves reading habits, but implementation and institutional context receive limited attention.	Analyses both educational impact and contextual challenges in a laboratory-school setting.
Novarina et al. (2019)	Indonesian primary school	GLS runs largely as intended but faces obstacles of time, declining collections, and teacher commitment.	Links such challenges to programmeme outcomes within an integrated analytical framework.
Present study	Laboratory school, Indonesia	Examines implementation via interviews, observations, and documents.	Integrates impact evaluation with a four-dimension analysis of implementation challenges.

institutional processes, and the context of implementation. Although the use of quantitative research methods would help to measure literacy achievement, it would not adequately explain the processes of interaction between leadership, teaching, student involvement, institutional process, and technology readiness in the implementation process (Creswell & Poth, 2018; Merriam & Tisdell, 2016). Through the lens of interpretive paradigm, which posits that reality is socially constructed in the context of participants' experiences in educational institutions, the research design helped to understand the literacy implementation process in a holistic and contextually grounded way.

Research Context

The research was done in Sekolah Dasar Laboratorium at Universitas Negeri Malang, which is a privately run laboratory school under the foundation of the university in Malang, Indonesia. Founded in 1986, this school has become one of the most prestigious laboratory schools in Indonesia and operates as a centre of teacher training, research, curriculum development, and instructional innovations. An important event in the history of the school was its selection as an International Standard School in 2007; this has helped it enhance educational standards through collaborations with international institutions like Cambridge Assessment International Education, among others, and literacy teaching in classrooms.

The literacy-rich environment at that particular time existed where the school comprised about 384 learners across six levels of classes. The programme aimed at teaching reading and writing literacy was taught across all the grades and in accordance with the foundation literacies of Indonesia including literacy in reading and writing, numeracy, science, digital, financial, and cultural-civic literacy. Literacy was integrated into the daily routines of the school through such methods as scheduled reading lessons, reflective discussions, guided writing, project learning, and the use of print and digital materials. It is these traits along with the literacy commitment of the school and its innovative culture that make the selected setting appropriate for studying the challenges related to the implementation of the reading and writing literacy programme.

Participants

Purposive sampling was used to recruit participants based on the criterion approach (Patton, 2015), thus ensuring that all participants had hands-on experience in relation to planning, implementation, supervision, or participation in the literacy programme. The laboratory school was the focal setting for recruitment, whereas the contextual reference group consisted of participants from public primary schools within the same cluster as explained in the previous paragraph. Various stakeholders were included in the sample, including school principals, whose role was administration; literacy coordinators, who planned and monitored the programme; teachers delivering the instructions,

and fourth-graders participating in the programme throughout the year. Table 3 below illustrates the characteristics of the participants.

In line with qualitative case study research, the sampling process was influenced by information richness rather than sample size. Since the reference case is bigger than the focal case, the function of the reference case is seen to be a matter of validating information gathered from the laboratory school in the context of the laboratory school's experiences rather than as another analytical case.

Data Collection

The data were gathered during two successive academic semesters, providing the opportunity to observe how the intervention was performed at various stages of the academic year and to trace changes in the literacy of the students, the actions of the teachers, and the reactions of the institutions. In order to get a complete picture, the research involved semi-structured interviews, non-participant observations of the classrooms, and document analysis, thus providing the basis for methodological triangulation. Interviews, which were the main source of information, were conducted in several rounds with the principals, the coordinators of literacy, the teachers, and some fourth-grade students.

The non-participant observations were conducted to look at how literacy practices happened in actual classroom situations. This included looking at the literacy routines, teacher-student interactions, participation, literacy environment in the classroom, and the inclusion of reading and writing in the teaching process. Fieldnotes were used to document literacy practices and contextual information that could not be seen during the interviews. The document analysis involved analysing school literacy policies, programmes and lesson plans, literacy portfolio of children, reading records, and school reports in order to validate interviews and observations.

Table 3
Profile of participants

Participant Group	Laboratory School	Public Schools (Reference)	Total	Role in the Study
School principals	2	7	9	Institutional leadership and literacy policy
Literacy coordinators	2	7	9	Planning, coordinating, and monitoring literacy
Classroom teachers	4	7	11	Classroom implementation of literacy instruction
Fourth-grade students	56	104	160	Participation in literacy learning activities
Total	64	125	189	Multiple stakeholder perspectives

Data Analysis

Data were simultaneously collected and analysed using reflexive thematic analysis by going through the six iterative processes of familiarisation, code generation, theme search, theme review, definition and naming of themes, and report production (Braun & Clarke, 2006). The transcripts of the interviews were written down verbatim and were then combined with field notes and documents that were then analysed many times before the process of coding took place. Initially, coding was done inductively; codes that were similar were then put together in categories. The four-dimensional approach that was generated in the literature review consisted of structural, instructional, student-related, and technological challenges and acted as a sensitising device during the whole process of analysis even if the analysis was open to themes that emerged from the data. Thematic analysis rigor was maintained throughout the entire process of each stage in accordance with Nowell et al. (2017).

Trustworthiness and Ethical Considerations

The concept of trustworthiness was considered by employing the criteria of credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). The following techniques were employed for ensuring credibility: prolonged involvement during two semesters, triangulation of methods, and multiple interviews with key participants; for transferability: detailed description of the setting, participants, and implementation process; for dependability: systematic recording of all stages of research as the audit trail; and for confirmability: constant comparison of the sources and discussions among the researchers.

The research was conducted within the guidelines of ethical conduct of educational research. Consent was sought from the management of the laboratory school and the other participating schools. The participation was voluntary, and the participants were made aware of the purpose of the research and that they were entitled to leave whenever they were pleased. Informed consent forms were obtained from the school authorities and teachers while from the student participants who were below eighteen years, consent was sought from the school in line with the institutional protocol, taking into consideration the well-being of the children.

RESULTS

Educational Impact of the Reading and Writing Literacy Programme

Analysis of the interviews, observation, and documentation revealed that the programme yielded considerable gains on three fronts: enhancement of reading literacy skills, enhancement of writing literacy skills, and development of higher order literacy skills. Through the practice of reading every day, self-selection of books by students, discussion, and oral and written expression, the programme succeeded in creating an environment where not just reading but other aspects of literacy were fostered.

Improvement in Reading Literacy

All evidence indicated the benefits both of fluency and comprehension, expressive reading, reading self-confidence, and sustainability in reading, largely due to the fifteen-minute reading practice prior to instruction. The school administration stated that the programme, which was adopted since 2019 within the framework of (Gerakan Literasi Sekolah/GLS), was supposed to instill the habit of reading among students, making it a regular activity unrelated to education, and choosing literature on the basis of topics studied in class. According to teachers, children, who previously could not read loudly, began to do it better, more correctly, and confidently enough to read in front of peers.

These findings were further supported by students' responses, where choice of personally meaningful texts and frequent reading helped build greater pleasure and self-confidence in the process of reading, better comprehension and less fear in reading out loud. This was again confirmed by classroom observations, where the student's showed engagement in independent reading, actively participated in post-reading discussions, and increasingly began to express the main ideas using their own words. The school's reading records reflected consistent improvements in performance over the period of implementation of this routine.

Improvement in Writing Literacy

Even though the programme aimed at developing reading, it also helped in the development of writing skills among pupils through reflection, written response, literacy journals, and writing in class. The school authorities noted that the writing process was introduced after reading as the students did not only read but they also responded to the reading materials through writing. Reflection, summary, opinion and creative writing were some ways the teachers noted improvement in organising thoughts, forming sentences, and making personal responses from the students. Some of the shy students even began recording reflections and submitting them.

Student feedback indicated that reading different kinds of books was inspiring and made writing more interesting, and that the ability to select their own materials helped motivate them to write since they could choose meaningful themes to write about. It was observed that students engaged in reflective discussions prior to writing their summaries and responses, demonstrating increased independence in planning and presenting their writing efforts, while the role of the teachers changed from directing to guiding them towards reflection. Portfolios and other writing activities demonstrated marked improvement in both quantity and quality of writing.

Development of Higher-Order Literacy Skills

Apart from the development of literacy skills of reading and writing, the programme enhanced higher order skills like critical thinking, reflective learning, oral communication, confidence, and

independent learning. It is important to mention that school administrators stressed on the fact that the purpose of the programme was not only to encourage the students to read more but to develop the capability of the students to critically comprehend, interpret, and communicate their ideas; activities were designed such that the students could critically analyse, state their views, ask questions, and make connections with daily life situations through reading.

The use of various types of texts helped students to engage in more complex thought processes before formulating opinions and made them feel more confident in communicating their ideas and working together. From observations, it became clear that students asked questions, made comparisons of different points of view, and supported their ideas by references to the text material, thus taking an active part in discussion and analysis rather than passively receiving the material. Portfolios, reflective journals, and tasks revealed more complex organisation and synthesis of information.

Structural Challenges

However, although the benefits above have been achieved, the implementation of the intervention was not without structural problems that affected the sustainability and reliability of the literacy practices carried out. Even though the literacy culture in the laboratory school is well-established, the participants always saw structural problems as a key issue, as was found in the reference group schools.

Availability of Literacy Resources and Facilities

The biggest challenge highlighted was the ability to provide an appropriate amount of suitable reading material. Leaders, coordinators, and teachers mentioned that students needed varied material in order to remain motivated, but there were not enough printed materials available. In order to counteract this challenge, the school made sure to change their classroom libraries regularly, promote sharing books, and incorporate digital reading when possible. Through observations, students were seen congregating in reading corners and at times even competing for certain books that were popular, especially those connected to classroom themes. It was also seen through documentation that investments in reading corners, library, and classroom reading were always being done despite recognising the need for updating collections.

Institutional Leadership and Policy Support

The second structural issue was related to the mechanisms needed for sustaining the process of implementation. Even though the role of leadership was portrayed as very supportive, it was mentioned that the implementation of the literacy programme in the whole school required ongoing coordination, planning, and proper management of the resources, and that the literacy was based on the institution policies incorporating the literacy into the school vision. The coordinators highlighted the importance of constant collaboration of the

leaders, teachers, parents, and the partners from the university, and that the integration of literacy alongside with other curriculum demands could sometimes put pressure on the organisation.

Instructional Challenges

The pedagogic challenges had to do with how literacy could be made meaningful through pedagogy and the professionalism necessary for sustaining it. The participants noted that the work around literacy included more than just having reading time, but that the reading should be followed by discussion, reflection, and writing.

Literacy Pedagogy and Classroom Implementation

According to teachers, the variations in students' reading skills, interests, and engagement often necessitated changes in teaching strategies in the form of guided reading, questioning, group discussions, and differentiating activities. Such changes required extra planning and teaching skills, particularly when teaching literacy was combined with other academic goals. In observation, teachers were seen to help learners interact with the text and engage in reflection and discussions, as well as assist struggling readers and writers during the literacy sessions that included collaboration and group discussions.

Teacher Professional Competence and Development

Yet another issue concerned maintaining the competency of teachers in teaching innovation. The leaders and coordinators pointed out that sustainability of the programme was dependent on the teachers' ability to devise strategies that catered to the changing needs of the students, which made professional discourse, collective planning, and self-reflection inevitable. For the teachers, it was important that the concept of literacy is everybody's concern, not only the one of language teachers, as it was evident from the documentation of institutional backing in terms of planning documents and meetings.

Student-Related Challenges

Another factor that affected the implementation of the programme was related to student issues. Even though the programme helped to improve the competencies of the students, it was recognised that the variations in the motivation levels, engagement levels, and confidence of the students initially posed problems during participation.

Reading Motivation and Engagement

The instructors observed that there was a difference in the level of interest among the students at the time of entry into the programme. Some students were very interested in the subject matter of reading whereas some found it as a task which needed frequent change in the nature of activities to keep them engaged in the process. The same thing was said by the leaders who emphasised that in order to have a consistent reading culture one needs to have interesting material and environment along with choices.

Reading Confidence and Learner Autonomy

A second issue related to the ability of the learners to feel confident and prepared for self-directed learning. Teachers noted that some of the learners felt anxious at first about reading aloud and giving their opinions due to a fear of making mistakes and being judged by other learners. The students indicated that the process of being repeatedly exposed to practice, constructive feedback, and discussion helped address this issue. The observation demonstrated that the students became more autonomous in choosing reading material and starting discussions.

Technological Challenges

The technological aspect was yet another barrier. Although the school had already started using digital resources, it was recognised that for effective usage, there had to be adequate infrastructure, appropriate content, and continued development of digital literacy among teachers and students. The challenges were related to the use of digital resources, the integration of technology by teachers, and responsible use by students.

Availability of Digital Literacy Resources

Coordinators and leaders clarified that digital resources now became an additional source to books in providing access to more information and diversity, although the issue of good quality content on the Internet varied widely, and schools had to make sure that print materials were well combined with selective digital materials so that technology could supplement, not substitute, real reading. The teachers mentioned that digital sources created new chances for their students but called for a teacher's assistance because students required help in identifying good sources, understanding information critically, and conducting searches without understanding the searched data.

Technology Integration in Literacy Instruction

Another aspect was connected with integrating the use of technologies into the teaching process. The teachers stated that technologies could be efficiently applied for improving the activities related to reading, discussion, and writing, but not as an independent component of the lesson. Observations showed the selective use of digital technologies to enhance the processes of understanding, cooperation, and writing. The successful use of technologies presupposed good preparation, knowledge of platforms, and relevance of the technologies to the objectives. The representatives of the laboratory and reference-group schools mentioned that the different conditions of their institutions affected the uniform application of technologies.

DISCUSSION

Educational Impact

It becomes clear from the findings that the programme brought about many positive results apart from the development of basic literacy skills - reading, writing, critical

thinking, reflection, communication, and autonomy of learners. It means that the notion of literacy used is rather wide, in line with the current approaches which consider it not only as a technical skill but also as a cognitive and social practice (Kalantzis & Cope, 2024). All these aspects of the programme can be understood as an interaction of the complementary elements of the programme implemented consistently for two semesters: reading habits, learner choices, reflection, and meaningful writing. This study is consistent with research suggesting that the integration of reading and writing through integrated instruction improves both, as both skills require the use of common brain regions (Kim & Zagata, 2024) as well as with the notion that literacy is developed through authentic social engagement. From a theoretical standpoint, the contribution made by this study to existing theory is that of an expansion of the way in which literacy implementation can be viewed: as a multidimensional process that goes beyond evaluating programme success based on reading outcomes alone.

Structural Challenges

The sustainability of the programme depended on conditions beyond classroom instruction. Although the school had a strong literacy culture, maintaining adequate materials and continuous institutional support remained recurring concerns that shaped how consistently activities could be organised, indicating that literacy programmes require organisational capacity as much as instructional quality. Leadership emerged as a key enabler: principals coordinated activities, supported teachers, and kept literacy on the long-term agenda, consistent with evidence that (Gerakan Literasi Sekolah/GLS) implementation depends heavily on leadership and sustained teacher commitment (Novarina et al., 2019). Resource limitations could be mitigated through effective management, but long-term sustainability still depended on institutional investment. Importantly, literacy became sustainable because responsibility was shared among leaders, teachers, and students and embedded in daily routines, suggesting that structural challenges are best understood not simply as constraints but as organisational conditions that shape how programmes are implemented and sustained.

Instructional Challenges

The implementation of literacy activities was influenced by more than just the availability of necessary resources; it also included making proper pedagogical choices by teachers. Literacy instruction was successful since there was always a connection between the use of literacy activities and discussions, reflections, and writing as opposed to literacy being viewed as simply routine reading, which requires constant modification to address varying levels of ability and interest among students. This finding reiterates the importance of literacy instruction in which reading and writing must be embedded throughout learning as opposed to teaching isolated skills and in which students acquire high proficiency when their teachers incorporate reading,

discussion, and reflective writing (Kim & Zagata, 2024). Professional competence of the teachers was crucial too since choosing materials, organising follow up activities, and addressing varying literacy levels required adaptive expertise as opposed to routine actions. Collaborative efforts became an essential way of sustaining quality, which was consistent with findings indicating that teacher professional development can improve students' reading achievement (Basma & Savage, 2023). That literacy was integrated throughout learning process as opposed to being limited to language classes reiterates current perspectives that see literacy as cross-curricular competence.

Student-Related Challenges

The results show that motivation, engagement, and confidence of students were key during implementation, which is in line with the literature showing that reading success is strongly related to motivation and providing students with opportunities to be actively and independently involved in the process (Taboada & Klauda, 2020; Toste et al., 2020). Different levels of interest and confidence influenced participation at first, but over time the differences between the participants in terms of motivation and confidence decreased as students interacted within the framework of regular activities that provided choice, real tasks, and discussion. In other words, motivation and confidence are not the features of an individual, but rather the result of the literacy context created by it.

There are practical implications of these findings. Maintaining engagement needs more than allocating time for reading activities; it involves interesting and diverse resources, autonomy of learners, and classroom atmosphere where learners feel free to speak out and make mistakes without being afraid of being ridiculed by others. The slow development of confidence and autonomy described above suggests that problems with students are more likely to be solved via sustained and learner-centred approaches, which is supported by findings about the potential of motivational reading interventions leading to small but noticeable improvements in motivation and academic performance (McBreen & Savage, 2021).

Technological Challenges

The technology component represents the emerging dynamics of literacy education through the expansion of information and multimodal text via the use of technology while creating new challenges. It can be observed from the results of the research that the use of technology was found to be successful only if it was used pedagogically to enhance the processes of reading, discussion, and writing, and not just for its own sake. This aligns with the view that digital literacy is an extension of reading and writing, and the value of digital literacy education is based on how effectively it is used, and not just on its accessibility (Gu & Ericson, 2025; Kalantzis & Cope, 2024; Pangrazio et al., 2020).

Most importantly, the idea of digital literacy is viewed not just as the technical

ability to do all this, but as the ability to assess credibility of sources, to understand information and to communicate responsibly, which corresponds to the need for incorporating information and critical literacy into curricula at the early stages of schooling (Chourio-Acevedo et al., 2024). It implies that schools have to consider digital literacy as one component of the whole literacy concept and invest in infrastructure but also train teachers and students to use digital spaces critically and responsibly.

CONCLUSION

This research study was done to examine the application of reading and writing literacy programme at an Indonesian laboratory school, considering not only its effects on learning but also factors that influence its implementation. This programme has led to multi-faceted positive outcomes such as the development of reading and writing literacy and the development of higher order skills such as critical thinking, communication, self-confidence, and learner autonomy, through reading regularly, making choices, discussion, and writing. Simultaneously, there were four interconnected factors that influenced the implementation of this programme such as resource and institutional conditions, literacy instruction and teacher development, student factors of motivation and confidence, and technology factors of digital resources.

The study has produced a multidimensional perspective of literacy implementation that considers the relationship between literacy outcomes and institutional factors, thereby going beyond mere outcome-based evaluation to a more holistic view of the determinants of the success or limitations of literacy programmes. The study is further important because it offers empirical evidence from a university-connected laboratory school, which is under-researched in terms of how its practices can be seen as innovative in education. From a practical perspective, the results show that schools that want to improve literacy have to do more than just increase time spent reading; there needs to be a holistic approach that combines reading, writing, discussion, reflection, and learner independence through instructional leadership and effective use of technology.

A number of limitations have to be noted as well. First of all, the current study has been based on the analysis of just one focal case, but the inclusion of a contextual reference group means that the results are analytically generalisable but not statistically generalisable and should be applied to other contexts taking into account specific features of those contexts. In addition, the evidence in this study has been collected by means of interviews, observations, and documents, and not by using standardised measures for literacy gains. This evidence is from participants' perspective and only within one particular institution.

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