Implementation strategy of multimodal literacy text as a means to optimize literacy in Indonesian language lessons for elementary school students

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KEYWORDS	ABSTRACT
Adaption of Technology Collaborative Learning Indonesian Language Literacy Multimodal School Literacy Movement	Multimodal literacy texts in Indonesian language learning in primary schools are needed to improve students' literacy skills holistically, along with the demands of the digital era that require students to understand various forms of visual, audio and digital-based texts. Literacy is an important skill in the industrial revolution 4.0 era, but literacy skills in Indonesia are still relatively low, especially in reading and numeracy literacy. The school implemented a multimodal literacy strategy that includes integrating text with visual and audio media, implementing collaborative learning, writing activities and utilising technology. The purpose of this study is to describe the implementation strategy of multimodal literacy texts in improving Indonesian literacy skills at Bulukantil State Elementary School, Surakarta. This study used a qualitative approach method, data collection techniques through interviews, observation, and documentation. The results showed that the integration of visual and audio media can increase students'engagement in understanding the text; collaborative learning develops students' social skills and digital literacy; and writing activities help students strengthen memory and communication skills. The utilization of technology allows access to more diverse learning resources, making learning more interactive and engaging. Overall, the results of this study can be concluded that the implementation of multimodal literacy texts is effective in improving students' Indonesian literacy skills, preparing them for the computer-Based National Assessment, as well as building positive character, creativity, activeness and independence.

Introduction

The era of the industrial revolution 4.0 makes literacy very much needed by students. Literacy activities in the school environment are an activity that seeks to improve the positive character of learners to become literate learners so as to support the learning process. Numeracy literacy skills are needed to solve everyday problems using mathematical knowledge of both symbols and numbers (Wahyani et al., 2022). Literacy is an important asset for students in facing the challenges of the times. Someone who has literacy skills is believed to improve the quality of life of individuals, families and communities (Alkhasanah et al., 2023). Rohim et al. (2021) explained that measuring cognitive aspects, particularly in terms of numeracy literacy and reading literacy, is conducted through the computer-Based National Assessment (ANBK). Thus, ANBK is specifically designed to promote programs aimed at developing reasoning skills rather than focusing solely on memorization. ANBK emphasizes literacy and numeracy, which has become a consideration for schools, especially principals, teachers, and students. Based on the research findings of Mustofa et al. (2022), children in Indonesia have a low interest in reading. Similarly, as explained by Fitriyana & Subiyantoro (2022), Indonesia still lags in literacy and

numeracy skills. This aligns with the research findings of Hanafi & Minsih (2022), which concluded that students' abilities to solve literacy and numeracy problems remain in the low category.

The levels of reading literacy and numeracy can be observed through PISA (Program for International Student Assessment), which focuses on a program to evaluate skills on an international scale. The 2022 PISA report revealed that out of 81 participating countries, Indonesia ranked 12th from the bottom. This indicates that the achievement scores in the three PISA assessment components—reading literacy, numeracy literacy, and science literacy—showed an improvement compared to 2018.

Based on the report by Hadi & Novaliyosi (2019), the TIMSS (Trends in International Mathematics and Science Study) conducted in Indonesia in 2015 for 4th-grade students showed that mathematics ranked 44th out of 49 countries, while science ranked 46th out of 49. The low results were attributed to inadequate support from the education department, a lack of reading materials, the absence of a specific schedule (Pantiwati et al., 2023), the lack of a literacy culture, and insufficient active involvement from principals, teachers, and students (Marmoah et al., 2022).

One of the places to learn and gain knowledge is in an educational institution, namely elementary school (Ifrida et al., 2023). Muliastrini (2020) explained that in elementary school there are several intelligences possessed by students, namely intellectual, spiritual, and emotional intelligence that is the foundation for students. Therefore, the school has innovation, namely through multimodal text literacy in Indonesian learning with the aim that students can become literate citizens.

In the context of 21st century learning, literacy is not only about the ability to read, write, and count (numeracy), but also about science (science) and technology (digital), finance (finance), culture and citizenship. Related to these six are the basic literacy and literacy dimensions in the "Roadmap of the National Literacy Movement" (Sholikhah et al., 2023). Preparing a literate generation to face the challenges of the 21st century is the goal of the school literacy movement. Based on these empirical data, efforts to improve student literacy are not enough only with the school literacy movement. Some of the factors that cause students' low literacy skills include incomplete book collections, some reading corners have not used bookshelves (Mustofa et al., 2022), teachers' misconceptions about literacy (Fuadi et al., 2020), student misconceptions, non-contextual learning, learning environment and climate, school infrastructure, school management (Suparya et al., 2022).

The research found shows that there are still many literacy efforts in schools that have not fully addressed numeracy, science, digital, financial and cultural literacy. In addition, innovations in creating text-rich environments, the integration of multimodal literacy in learning and the active involvement of school principals in managing literacy programmes are also lacking. This research aims to: (1) analyse the role of principals, teachers and the school environment in improving learners' literacy skills in the era of the industrial revolution 4.0; (2) describe the factors that cause low literacy of learners in primary schools; (3) develop innovative strategies based on text-rich environments and multimodal text literacy in improving learners' literacy skills; and (4) provide recommendations for the implementation of basic literacy which includes reading, numeracy, science, financial, digital, cultural and civic literacy in primary school learning.

Strategies other than the school literacy movement in improving students' literacy skills according to the results of research (Sukma, 2021; Napfiah et al., 2023), namely by creating a text-rich environment. This environment is created by schools in various ways, for example by making posters in the school environment, wall magazines, and displaying students' work on the classroom wall. Palupi et al. (2020) also explained that media literacy is needed because of media convergence that connects electronic media and digital media (multimedia communication) that occurs in various developments in the information society.

Condie & Pomerantz (2020) explained that to address the lack of interest in literacy among students, innovations are needed to attract and motivate students to improve their literacy skills. In line with Yulianto et al. (2018; Mcleod et al., 2025), innovations that can be implemented in preparing literacy in elementary schools include the school literacy movement, which supports and influences students' literacy development. Budiharto et al. (2018) further emphasized that innovations implemented in schools can foster a culture of literacy, engage students and school communities in becoming literate, transform schools into learning hubs, and provide access to various reading materials. According to Oktaviani & Kaltsum (2023), improving literacy can also be achieved by providing various facilities and infrastructure related to literacy activities or programs.

This research is based on a theoretical framework that includes: (1) the importance of basic literacy development in the era of industrial revolution 4.0; (2) literacy as a life skill that includes six main dimensions (reading, numeracy, science, digital, financial, cultural and citizenship); (3) the importance of principals as drivers of school literacy innovation; (4) the implementation of text-rich environments in

schools as an effective strategy to improve literacy; and (5) the integration of multimodal texts and digital media in learning to build a 21st century literacy culture.

Method

This study employs a qualitative descriptive research method, where qualitative research begins with an inductive reasoning approach based on objective and participatory observation of social phenomena (Sidiq et al., 2019). Metasari & Amalia (2024) explained that qualitative research aims to deeply understand the root causes of human and social environmental issues. The purpose of this study is to provide an overview of the strategies for implementing multimodal literacy texts to enhance Indonesian literacy skills at Bulukantil Public Elementary School. According to Pahleviannur et al. (2023), this qualitative research describes and examines phenomena and research subjects comprehensively, both individually and in groups. Qualitative research is also referred to as naturalistic settings because it is conducted naturally. This research explores the activities of teachers and students in implementing strategies for multimodal literacy text application to improve Indonesian literacy skills at Bulukantil Public Elementary School.

This research was conducted from April to June 2024 at SD Negeri Bulukantil. The research subjects consisted of the principal, three teachers from grades IV and V, and six students from grades IV and V who were selected based on teacher recommendations by considering their activeness in literacy activities. The research subjects totalled ten people. The object of the research is the implementation strategy of multimodal literacy texts in Indonesian language learning, considering that this school has implemented multimodal literacy as an effort to strengthen students' reading and writing skills.

The subjects of this research are the principal, teachers and students of SD Negeri Bulukantil. The object of this research is the implementation strategy of multimodal literacy texts in improving Indonesian literacy skills at SD Negeri Bulukantil because this school applies multimodal literacy as a reinforcement in reading and writing skills in Indonesian language learning. Data collection was conducted through fieldwork to observe the object or phenomenon being studied. Primary data were obtained using interview techniques, supported by documentation and observation. Interviews were conducted with the principal, teachers, and students at Bulukantil Public Elementary School.

The data analysis used in this study employed an interactive analysis technique (Saleh, 2017). The validity of the data was ensured through source triangulation and method triangulation. Source triangulation involved classroom teachers and students, while method triangulation was carried out by collecting data through observation and documentation related to various strategies for implementing multimodal literacy texts to enhance Indonesian literacy skills at Bulukantil Public Elementary School. After all the data was collected and triangulated, the data was analysed thematically to identify strategic patterns in the implementation of multimodal literacy. The findings from this analysis will provide a full picture of how multimodal literacy strategies are implemented to improve Indonesian literacy at Bulukantil primary school.

Results and Discussion

Results

Based on the results of research conducted at Bulukantil State Elementary School regarding research on the implementation strategy of multimodal literacy texts in improving Indonesian language literacy skills, there are several strategies.

1. Integration of Text with Visual and Audio Media

The initial strategy applied in multimodal literacy texts to improve Indonesian language literacy skills is by integrating text with visual and audio media. The integration of text with visual and audio media aims to increase student involvement in understanding text more deeply with various variations of both visual and audio, including images, graphics, videos, recordings and music. In addition, the integration of text with visual and audio media can provide students with an overview in imagining the context of the story and enriching the reading experience. Based on interviews with class teachers, it is explained as follows and can be seen in Fig.1.

> *True, with the integration of text with visual and audio media, it will make students actively involved in understanding text with various variations of both audio and visual media. In addition, students also have new images and knowledge that are accustomed in the morning with visual or audio media in the school environment. Thus, students are able to improve their literacy skills, especially in the Indonesian language subject.*

Fig. 1. Multimodal Literacy Text

Through integration with text with visual and audio media, students are more accustomed to hearing and seeing related to texts in the school environment. Therefore, students will find it easier to improve their literacy skills, especially in learning Indonesian.

2. Implementation of Collaborative Learning

The activities carried out by students of Bulukantil State Elementary School are not only text integration with visual and audio media but can also carry out learning with collaborative applications. The purpose of learning activities with collaborative applications is to collaborate group-based activities (discussions) and cooperation between students in analyzing texts in multimodal forms. Based on interviews with the principal, it is explained as follows and can be seen in Fig. 2.

The impact was very positive. Not only did students understand the material more easily, but they also developed important social skills, such as communication, leadership, and collaboration. We also saw an increased sense of responsibility, as each group member felt responsible for the success of the collective task. In addition, collaborative learning also gave them the opportunity to learn from their peers, which is often more effective than just listening to the teacher's explanation.

Fig. 2. Collaborative learning

Collaborative learning provides an opportunity for students to discuss with group members, then present, and actively collaborate in this multimodal literacy activity. By working together, it will further improve students' understanding, insight, and attraction to continue learning, especially in learning Indonesian. In addition, activities with the application of collaborative learning are easier to foster and apply, especially in a sense of responsibility in group discussion activities or cooperation. With this, students can become literate school citizens.

3. Writing activities

    Another activity carried out was writing. After the reading activity in each group, students wrote down the results of their reading on a sheet of paper. The paper was then collected by the supervising teacher. The teacher selected some of the students' writings to be displayed on the bulletin board. Some of the writings were also transcribed and typed by the teacher to contribute to the reading materials on the bulletin board.

    The writing activity is a stage in the implementation of multimodal literacy texts. In this activity, students were given 10 minutes to write. The result of this writing or summary is based on the reading they have done, using the students' own language. The outcome of this activity helps train students to develop strong memory skills and the ability to draw conclusions from the reading they have done can be seen in Fig. 3.

    > *At this stage, students are given the opportunity to write or summarize the reading material they have gone through. Additionally, students' writings are presented and can also be displayed on the bulletin board or literacy board, where they can be read by other classmates.*

Fig. 3. Student Writing Results

    The implementation of multimodal literacy texts represents a new breakthrough for schools in preparing for the National Computer-Based Assessment (ANBK) at the elementary school level, specifically in relation to literacy. This activity was carried out by Bulukantil Public Elementary School to prepare students to have broader knowledge and insights in Indonesian language learning. This progress also positively influences students' literacy outcomes, as they become accustomed to engaging in literacy activities.

4. Utilization of Technology

    Technology plays a very significant role in the learning process, especially in multimodal literacy activities. Through technology, students can access various types of reading materials, particularly through different websites provided by the government for literacy activities. Not only that, but this activity also utilizes various platform applications in the "Merdeka Belajar" (Independent Learning) program. Additionally, students are given the opportunity to search for various sources, including videos, images, and interactive texts. By leveraging this technology, students can learn in a modern, enjoyable, and more effective way, making the learning process more engaging and motivating students in literacy, particularly in Indonesian language learning and can be seen in Fig. 4.

Technology offers many benefits in the development of literacy. Through various available applications, students can access a wider variety of texts, including reading materials, videos, and images that enhance their understanding. For example, in Indonesian language learning, students don't just read regular texts; they can also access interactive articles, videos that explain specific topics, or images related to the readings. This makes the learning process more enjoyable and effective, as they can directly see the connection between the text they are reading and the visual or multimedia context that supports it. This is particularly engaging for students because they are learning in a more modern way that aligns with their lifestyle, where technology plays a significant role in their daily interactions.
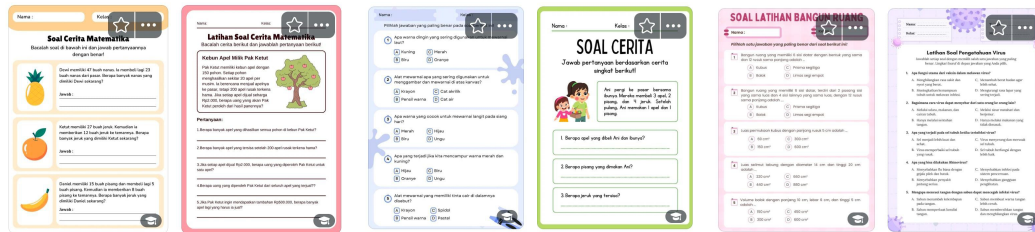

Fig. 4. Canva-Based Multimodal Literacy

The impact of implementing literacy activities in Indonesian language learning is reflected in the improvement of students' scores in daily tests and the End-of-Semester Assessments. This is evident as, in the past, students' answer sheets often contained blank spaces or incomplete responses, but during exams, students are now able to answer questions more accurately, even though their spelling or word usage may not be perfect. Additionally, these activities also contribute to the improvement of students' character values, as they engage more deeply in learning and demonstrate a greater understanding of the material can be seen in Table 1.

Table 1. Student Character Values

No	Character	Level of Character
1	Self confidence	80% out of 100%
2	Active	90% out of 100%
3	Creative	80% out of 100%
4	Innovative	80% out of 100%
5	Independent	90% out of 100%

The students become more active in searching for information and more enthusiastic about learning. They no longer rely solely on textbooks but also explore information through various digital sources they encounter. Moreover, learners can also develop these modern digital literacy skills to make learning more interactive and enjoyable, as well as increase their motivation to continue learning.

Discussion

Multimodal literacy texts in Indonesian language learning activities make learning more enjoyable, interesting, and interactive (Lio, 2023). Through these multimodal literacy texts, students can master insights, especially in Indonesian language learning. Multimodal literacy texts can be accessed using educational technology that supports the benefits and impacts for students (Shinas et al., 2021; Rahmanu & Molnar, 2024). Students today are heavily reliant on digital skills to read and communicate, including through audio and 3D images (Bao et al., 2024;Haridas et al., 2024). This activity helps cultivate and instill literacy in students, particularly in skills and knowledge related to writing and reading texts (Fiftinova et al., 2022; Law & Law, 2024)). Literacy activities need to be prepared and instilled from an early age in students, with the aim of ensuring that the learning process has variety and meaning that can enhance the quality of education, especially for students (Sholikhah et al., 2023; Strømman, 2021).

Multimodal literacy texts, especially in activities aimed at strengthening Indonesian language literacy skills, can determine the success of students. This aligns with Turner et al. (2023), who state that multimodal literacy provides an opportunity to explore texts, build a shared understanding of texts, and

shape their stance on the texts. Through these literacy activities, schools have an implementation strategy to prepare students to become literate citizens (Kanitz & Luz, 2019; Wintolo & Waluyo, 2025). The strategies implemented in schools vary with the goal of achieving a significant improvement in the quality of education through the habituation of multimodal literacy texts (Nasir, 2021; Muawanah et al., 2024). The strategy in these literacy activities is designed so that students have an easy way to engage in literacy activities every day (Wannapiroon et al., 2021). In addition, students in these activities will gain information related to the improvement of their Indonesian language literacy skills.

Literacy in multimodal literacy text activities can solve problems and draw conclusions through critical thinking. Karatza (2022) states that one of the key points in the diverse and varied formats of texts is their ability to develop critical thinking through students' multimodal awareness. This serves as the foundation that critical thinking is a skill essential for realizing the 21st century. It is necessary to develop life skills to find and make decisions through careful consideration (Fadeev, 2020). Critical thinking helps individuals become wiser in facing life's challenges. Critical thinking and problem-solving skills are closely related (Promma et al., 2025). Therefore, by engaging in critical thinking, students are able to find solutions to problems, using strategies designed by the school, one of which is multimodal text literacy (Arthi & Gandhimathi, 2025).

The implications of this study provide an overview of strategies for improving literacy through multimodal literacy texts in elementary schools. This can serve as a reference for schools to achieve improved educational quality standards, one of which is through the implementation of multimodal literacy texts (Zaidi & Sah, 2024; Fernandes et al., 2024). The application of multimodal literacy texts in this study is a new finding for researchers to design and implement current educational assessment programs. These multimodal literacy texts encourage students to read, write, and think critically in preparation for the National Assessment of Basic Competency (ANBK). Therefore, it is expected that future research will deepen and expand studies by using the latest strategies to improve Indonesian language literacy skills in elementary schools.

Conclusion

Based on the research conducted, it can be concluded that the implementation of multimodal literacy texts at Bulukantil Public Elementary School through various strategies: (1) integrating texts with visual and audio media, (2) applying collaborative learning, (3) engaging in writing activities, and (4) utilizing technology, has significantly improved students' Indonesian language literacy skills. By combining various media and technologies, students become more engaged in learning, develop social and digital literacy skills, and demonstrate greater creativity in expressing their understanding. Moreover, these strategies help students sharpen their critical thinking, problem-solving abilities, and prepare for computer-based assessments, ultimately leading to improved academic performance and character development.

Declarations

Additional information : The views and assumptions expressed in this article are those of the authors and do not reflect the official policies or positions of the institutions affiliated with the authors.

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