

Assessing Multimodal Literacy in Indonesian Secondary Schools: Reading and Viewing Strategies in the Merdeka Curriculum

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Abstract—This study investigates multimodal literacy assessment practices in Indonesian secondary schools implementing the Merdeka Curriculum, focusing on reading and viewing strategies in the English language. Using a qualitative design, this study analysed 210 assessment items and conducted interviews with 12 teachers. The findings reveal a dominant reliance on written discourse (69.43%), with minimal use of multimodal elements such as infographics (2.56%) and images (0.62%), while audio-visual materials were entirely absent from the corpus. A significant proportion of multimodal stimuli were found to be ineffective (32.87%) because students could respond without engaging with the materials. The assessment tasks predominantly targeted lower-order thinking skills, with only 1.67% of items requiring evaluation and 5.74% requiring knowledge creation. Teacher interviews highlighted challenges related to selecting relevant multimodal stimuli, time-consuming grading processes, and insufficient training in multimodal assessment design. The study concludes that systematic teacher training, stronger institutional support, and the development of clearer assessment frameworks are needed to align practices with the goals of the Merdeka Curriculum.

Index Terms—multimodal literacy, assessment practices, reading strategies, viewing strategies, Merdeka Curriculum

I. INTRODUCTION

In the digital age, literacy is no longer confined to reading and writing printed texts. Contemporary communication increasingly relies on multimodal texts that integrate linguistic, visual, auditory, and interactive resources. Social media platforms, online news portals, digital infographics, and video-sharing applications such as TikTok and YouTube illustrate how meaning is constructed through the orchestration of multiple modes of communication. As Campbell and Olteanu (2024) observed, literacy is fundamentally reshaped by multimodality, requiring learners to decode written texts and interpret, evaluate, and create meanings across diverse semiotic forms. Scholars argue that this expanded view of literacy is essential for preparing students to engage with the complexities of 21st-century communication (Domínguez Romero & Bobkina, 2021; Martínez-Bravo et al., 2022; Mirra & Garcia, 2021).

The recognition of multimodal literacy has led to significant changes in pedagogy and assessments. In Australia, multimodal texts have been systematically integrated into national assessments, requiring students to interpret visual-verbal combinations in standardised tests (Agustin et al., 2024). In Singapore, the English curriculum emphasises multimodal literacy, with students expected to analyse images, infographics, and audiovisual texts alongside written discourse (Komminos & Starc, 2024; Pang, 2020). In Canada, multimodal assessments have been linked to student engagement and resilience, underscoring their broader educational impacts (Li et al., 2024). These developments show how assessment practices have shifted from evaluating the basic comprehension of linear texts to measuring higher-order competencies such as critical analysis, synthesis, and creative production across modalities.

However, Indonesia presents a different scenario. The introduction of the Merdeka Curriculum has placed literacy, higher-order thinking, and student-centred learning at the core of educational reforms. The curriculum promotes authentic multimodal assessments that reflect the reality of digital communication. The Sekolah Penggerak program was designed to pioneer innovative pedagogical practices and serve as a model for broader implementation throughout Indonesia. Despite these policy shifts, empirical evidence indicates that classroom practices remain heavily reliant on written texts and conventional assessments (Al-Awawdeh & Kalsoom, 2022; Vogt et al., 2020). Teachers continue to use familiar test formats, and when multimodal tasks are included, they are often employed decoratively rather than meaningfully.

This discrepancy between policy aspirations and classroom realities highlights a significant research gap in the literature. While multimodal literacy has been extensively examined in developed contexts such as Australia, Canada,

and Singapore, studies in Indonesia are scarce. Research has largely focused on conventional literacy skills, with little attention paid to the practical implementation of multimodal assessment. Even studies discussing multimodal pedagogy often overlook how comprehension-based strategies—particularly reading and viewing—are assessed. This lack of systematic investigation is critical because reading and viewing strategies are central to multimodal literacy. Reading strategies extend beyond decoding and include identifying the main ideas, making inferences, and critically evaluating textual structures (Moir et al., 2020). Viewing strategies involve interpreting meaning from images, infographics, and videos, requiring students to analyse visual design, symbolism, and perspectives (Chen & Friis, 2024; Gross, 2024). Both are essential for fostering critical engagement; however, their roles in assessment remain underexplored in Indonesia.

This research gap is significant for several reasons. First, without the adequate integration of multimodal elements, assessment practices risk undervaluing students' literacy competencies, particularly their ability to interpret and critique non-linguistic forms of communication. Second, the absence of a systematic multimodal assessment could undermine the goals of the Merdeka Curriculum, which seeks to foster higher-order thinking skills and prepare students for complex communication. Third, the lack of empirical studies from developing countries means that global debates on literacy reform are dominated by perspectives from the Global North, leaving out the unique challenges and opportunities present in Indonesia.

Therefore, this study aims to explore multimodal literacy assessment practices in Indonesian secondary schools, specifically focusing on the integration of reading and viewing strategies. By analysing assessment instruments and exploring teachers' perspectives, this study seeks to answer the following questions: (1) How are reading and viewing strategies assessed in multimodal literacy practices? (2) To what extent do these assessments support higher order thinking? (3) What challenges do teachers face in developing and implementing multimodal assessments?

This study contributes to the literature in three main ways. Theoretically, this study enriches the scholarship on multimodal literacy by examining often-overlooked dimensions of reading and viewing assessments. Empirically, it provides valuable evidence from Indonesia, a developing context in which multimodal assessments have been underexplored. Practically, it offers insights for teachers, curriculum designers, and policymakers to align assessment practices with the goals of the Merdeka Curriculum. By positioning the study within both global debates and national reforms, this research bridges the gap between policy ideals and classroom realities, highlighting pathways to strengthen multimodal-literacy-education in Indonesia.

II. LITERATURE REVIEW

A. *Multimodal Literacy: Conceptual Foundations*

The definition of literacy has significantly expanded in the digital era. Traditionally, literacy has been understood as the ability to read and write in printed texts. However, it is increasingly viewed as a multimodal competence involving the interpretation and production of meaning across linguistic, visual, auditory and interactive modes. Kress (2010) conceptualized multimodal literacy as the orchestration of diverse semiotic resources in communication, whereas Shonfeld et al. (2021) and Lim et al. (2023), and Bojórquez-Roque et al. (2024) emphasized its role in preparing learners to navigate digital environments. This broader definition underscores that literacy is now more complex and expansive, requiring critical engagement with multimodal texts in everyday and academic contexts. Thus, multimodal literacy is seen as a crucial 21st-century skill that enables learners to analyse and synthesise information across modes, interpret infographics and audiovisual materials, and engage meaningfully in digital communication. Lam and Putri (2024) argue that multimodal literacy is closely linked to critical thinking, creativity, and digital citizenship, all essential competencies for contemporary learners.

B. *Multimodal Literacy Assessment*

Despite the widespread recognition of multimodal literacy, its assessment has not developed at the same pace as its conceptualisation. Traditional assessments primarily focus on written comprehension, often overlooking the broader competencies required for multimodal literacies. In contrast, multimodal literacy assessment involves evaluating how learners interpret, analyse, and produce meaning using multiple modes (Azorín et al., 2020; Beltrán-Palanques, 2024; Tan et al., 2020). There are two key approaches to multimodal literacy assessment: performance-based and reflective assessments. Performance-based assessments involve evaluating students' multimodal creations, such as presentations, videos, or infographics. While this approach emphasises authenticity and creativity, it requires clear rubrics to ensure validity. In contrast, reflective assessments ask learners to explain the reasoning behind their multimodal choices, providing insights into their understanding of semiotic interactions (Kohnke et al., 2021).

In global contexts, such as Australia and Singapore, multimodal literacy is integrated into national assessments, with students required to engage with visual, oral, and written components (Lim & Unsworth, 2023). However, challenges persist, including a lack of teacher confidence, heavy workloads, and difficulties in aligning multimodal resources with learning objectives (Li, 2020; Liu & Lo, 2025). These challenges demonstrate that multimodal assessment, while aspirational, has not yet been fully realised in many educational settings.

C. *Reading and Viewing Strategies in Multimodal Literacy*

Traditionally associated with decoding and comprehending written texts, reading strategies now extend to digital and

multimodal environments, such as video lectures. These strategies include identifying main ideas, making inferences, and evaluating textual structures in print and digital formats (Chu, 2020). In multimodal contexts, students must synthesise visual and textual cues, such as interpreting graphs and written explanations. In contrast, viewing strategies involve the ability to critically interpret visual and audio-visual materials. González-Martín et al. (2022) describe these as the skills required to analyse composition, colour, and symbolism in images or videos, while Kwangmuang et al. (2021) highlight their potential to foster higher-order thinking, even among young learners. However, Gijsen et al. (2024) noted that viewing tasks are often used at the surface level, requiring recall rather than critical analysis.

Together, reading and viewing strategies are foundational to multimodal literacy, enabling learners to navigate and evaluate meaning across different modes. Thus, assessing these strategies is essential for understanding students' full literacy competencies. However, empirical studies focusing specifically on how these strategies are assessed are scarce.

D. Multimodal Literacy in the Indonesian Context

In Indonesia, the Merdeka Curriculum seeks to reform pedagogy and assessment by emphasising critical thinking, creativity, and authentic learning. Literacy is broadly defined as engagement with multimodal texts in line with global trends. The Sekolah Penggerak program was designed to pioneer these innovations. Despite these policy directions, classroom practices in Indonesia remain largely centred on text-based assessment (Anwas et al., 2022; Marmoah & Poerwanti, 2022). Although some studies have focused on digital literacy (Lim et al., 2023), systematic investigations of multimodal assessments remain scarce. When multimodal elements are included, they are often used decoratively rather than pedagogically, with tasks that primarily target lower order thinking skills. Teachers also report insufficient training and support in designing multimodal assessments, which limits their ability to implement them effectively.

E. Research Gap

The literature shows that multimodal literacy is recognised globally as a central competency, with its assessment emphasised in many educational systems. However, significant gaps remain in our understanding of how multimodal literacy is assessed in developing contexts such as Indonesia. Specifically, the systematic exploration of integrating reading and viewing strategies into assessments has been lacking. Most Indonesian studies continue to focus on conventional literacy or general digital skills, leaving unanswered questions about how multimodal assessment is implemented in classrooms and how it aligns with the curriculum goals. This study addresses this gap by focusing on multimodal literacy assessment in Indonesian secondary schools, with particular attention to reading and viewing strategies. This study contributes to the global literature by providing evidence from an underexplored context and informing national reforms by identifying the opportunities and challenges of implementing multimodal assessments in practice.

III. METHODS

A. Research Design

This study employed a qualitative content analysis design (Mayring, 2022), complemented by semi-structured interviews, to investigate multimodal-literacy assessment practices in Indonesian secondary schools. Content analysis was chosen for its ability to systematically examine both textual and visual data within authentic assessment instruments, while interviews provided insights into teachers' reasoning, challenges, and perspectives. This mixed-method approach allowed for a more comprehensive understanding of multimodal literacy assessment in the context of the Merdeka Curriculum in Indonesia.

B. Research Context and Participants

The study was conducted in six Sekolah Penggerak located in various districts of three regencies: Sragen, Solo, and Klaten in Central Java, Indonesia. These schools were selected through purposive sampling to ensure diversity in geographical location, institutional profile, and teacher experience. Twelve teachers participated in this study, all of whom were Indonesian language teachers responsible for designing literacy assessments at their respective schools. Written consent was obtained from all participants, and their identities were kept confidential by using pseudonyms to ensure their anonymity.

C. Data Sources

This study used two primary data sources. First, 210 assessment items were collected from written tests, worksheets, and examination papers used in the participating schools over one academic year. These items provided a foundation for content analysis. Second, semi-structured interviews were conducted with the 12 teachers to capture their experiences, rationales, and challenges in designing and implementing multimodal assessments. The combination of document analysis and interviews allowed for triangulation, thereby enhancing the validity of the findings.

D. Coding Scheme and Analytical Framework

The coding scheme for the assessment items was developed deductively and inductively. Deductive categories were based on established frameworks in multimodal literacy and Bloom's Revised Taxonomy (Anderson & Krathwohl, 2001; Grapin & Kranzler, 2018; Kress, 2010). Three main dimensions were considered.

1. Modalities Used: Each assessment item was classified according to the type of modality used (e.g., written discourse, infographic, image, audio-visual, or no text task).
2. Stimulus Effectiveness: Stimuli were coded as either effective (i.e., necessary for answering the question and enhancing comprehension) or ineffective (i.e., irrelevant or redundant to the task).
3. Cognitive Level: Each item was categorised according to Bloom's Revised Taxonomy, ranging from C1 (remembering) to C6 (creating).

Inductive coding was applied to the interview data, with themes emerging around teachers' challenges, strategies, and reflections on their assessment practices. These themes were subsequently compared with quantitative data from the assessment analysis to provide an integrated interpretation of the results.

E. Inter-Coder Reliability and Validity

To enhance the trustworthiness of the coding, two researchers independently coded a subset of 30 assessment items (approximately 15% of the total number of items). Inter-coder reliability was calculated using Cohen's kappa, which yielded a high agreement rate of 0.86. Discrepancies between coders were discussed and resolved through consensus, and a refined coding scheme was applied to the remaining items after that. To further strengthen the validity, data triangulation was used by comparing the findings from the assessment items with the teachers' interview responses. Member checking was conducted with four teachers who reviewed the preliminary findings to ensure their accuracy and credibility.

F. Data Analysis Procedures

Data analysis was conducted in multiple stages as follows. First, the 210 assessment items were coded according to three dimensions (modalities used, stimulus effectiveness, and cognitive level). Frequencies and percentages were calculated for each category, and the results were presented using descriptive statistics tables. These statistics were visualised in tables and figures to highlight patterns in modality distribution, stimulus effectiveness, and cognitive levels.

Second, thematic analysis was applied to the interview data to identify key themes. Thematic categories, such as "stimulus selection", "workload constraints", and "professional development needs", were identified in the interview transcripts. These themes were compared with the quantitative results from the content analysis to identify any convergence or divergence in the results. Finally, the findings from both data sources were integrated into a narrative synthesis that provided a comprehensive overview of multimodal literacy assessment practices in Indonesian secondary schools.

G. Ethical Considerations

Ethical approval for this study was obtained from the Research Ethics Committee of the university affiliated with the project. Teachers were assured of confidentiality and anonymity, and pseudonyms were used in all reports to protect their identities. Participation in the study was voluntary, and the teachers were informed that they could withdraw from the study at any time, without penalty.

IV. FINDINGS AND DISCUSSION

A. Findings

This section presents the findings of this study on multimodal literacy assessment practices in Indonesian secondary schools implementing the Merdeka Curriculum. The results were categorised into four thematic areas: (1) the use of multimodal texts in assessments, (2) the effectiveness of problem stimuli, (3) the distribution of cognitive levels in assessment tasks, and (4) the challenges teachers face in designing and implementing such assessments. Each theme was supported by quantitative data, visual representations, and qualitative insights from the teachers' interviews.

(a). Use of Multimodal Texts in Literacy Assessment

Analysis of the 210 assessment items revealed a significant imbalance in the use of different modalities. Written discourse overwhelmingly dominated the assessments, accounting for 69.43% of the items. In contrast, infographics and images accounted for only 2.56% and 0.62% of items, respectively. Audiovisual materials, such as videos, were not included in the assessments.

TABLE 1
DISTRIBUTION OF MULTIMODAL TEXTS IN ASSESSMENT ITEMS

Instrument	Written Discourse (%)	Infographics (%)	Images (%)	No Text (%)
1	86.00	0.00	0.00	14.00
2	85.00	0.00	0.00	15.00
3	68.57	2.86	0.00	28.57
4	62.50	12.50	0.00	25.00
5	18.52	0.00	3.70	77.78
6	96.00	0.00	0.00	4.00
Average	69.43	2.56	0.62	27.39

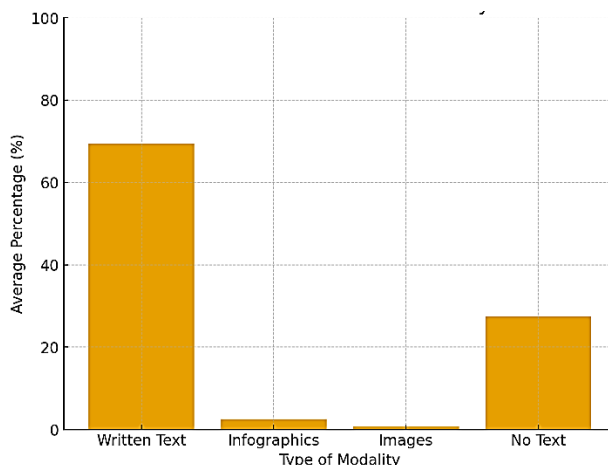


Figure 1. Distribution of Multimodal Texts in Literacy Assessment

The data in Figure 1 clearly show a dominant reliance on written text in the assessments, with nearly 70% of the items consisting solely of written discourse. The minimal inclusion of visual elements, such as infographics and images, indicates that students are rarely provided with opportunities to engage in multimodal interpretation. The complete absence of audiovisual materials suggests that students are not encouraged to critically engage with the multimodal texts they encounter in their daily lives.

A teacher from School 2 explained the situation as follows:

"We know that infographics or pictures can make students think more critically, but it is not easy to design good questions with them. Most of us prefer to stick with texts because it is safer and more familiar".

(b). Effectiveness of Problem Stimuli

The effectiveness of the multimodal stimuli used in the assessments was also evaluated. The stimuli were categorised as either effective or ineffective based on whether they were necessary for answering the question and whether they contributed to students' comprehension. Approximately 67% of the stimuli were effective, whereas the remaining 32.87% were ineffective. Ineffective stimuli included cases where visual elements were irrelevant to the task, allowing students to answer without engaging with the multimodal material.

TABLE 2
EFFECTIVENESS OF PROBLEM STIMULI

Instrument	Effective Stimuli (%)	Ineffective Stimuli (%)
1	62.79	37.21
2	76.47	23.53
3	76.00	24.00
4	50.00	50.00
5	50.00	50.00
6	87.50	12.50
Average	67.13	32.87

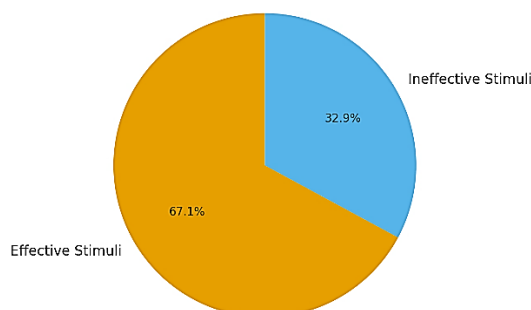


Figure 2. Effectiveness of Problem Stimuli

Figure 2 shows that while most multimodal stimuli were effective, nearly one-third (32.87%) were not. This indicates that the integration of multimodal elements does not always enhance learning, and in some cases, visual resources are used more for decorative purposes than for pedagogical ones. This highlights a significant issue in the design of multimodal assessments: simply including visual elements does not automatically enhance students' learning or their engagement.

One teacher from School 5 remarked:

"Sometimes we add pictures just to make the questions more interesting, but we realise later that the pictures do not really help students think. They can answer without even looking at them".

(c). *Distribution of Cognitive Levels in Assessment Tasks*

The cognitive demand of the assessment tasks was analysed using Bloom's Revised Taxonomy. The analysis showed that most assessment items targeted lower-order thinking skills (LOTS), with remembering (C1) and applying (C3) comprising nearly half of the total tasks. Tasks that required evaluation (C5) or creation (C6) were extremely limited, comprising only 1.67% and 5.74% of the total tasks, respectively.

TABLE 3
DISTRIBUTION OF COGNITIVE LEVELS IN LITERACY ASSESSMENT ITEMS

Instrument	C1 (%)	C2 (%)	C3 (%)	C4 (%)	C5 (%)	C6 (%)
1	16.0	12.0	52.0	16.0	4.0	0.0
2	2.5	35.0	2.5	60.0	0.0	0.0
3	22.86	20.0	2.86	48.57	0.0	5.71
4	25.0	0.0	25.0	25.0	0.0	25.0
5	70.37	11.11	11.11	3.7	0.0	3.7
6	4.0	22.0	46.0	22.0	6.0	0.0
Average	23.45	18.72	23.24	29.21	1.67	5.74

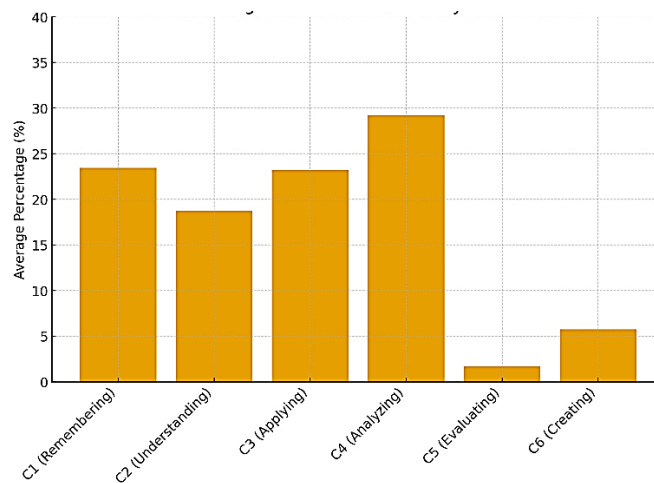


Figure 3. Distribution of Cognitive Levels in Literacy Assessment

As shown in **Figure 3**, most assessment items focused on lower-order thinking skills (C1 and C3), with minimal attention to higher-order thinking skills (C5 and C6). The lack of tasks that required evaluation or creation indicates that the assessments were not fully aligned with the Merdeka Curriculum's emphasis on higher order thinking.

A teacher from School 3 shared the following statement:

"We want to create HOTS questions, but honestly, it is difficult. Designing questions that ask students to evaluate or create using multimodal texts takes a lot of time and skill, which many of us are still developing".

(d). *Teacher Challenges in Developing Multimodal Assessments*

Interviews with teachers revealed three major categories of challenges. First, teachers reported difficulty in selecting appropriate multimodal stimuli that aligned with the learning objectives. Second, the time-consuming nature of grading multimodal tasks has discouraged teachers from regularly using them. Third, limited professional development and training meant that teachers often lacked the necessary skills and confidence to design effective multimodal assessments.

A teacher from School 6 stated:

"Choosing the right texts for HOTS questions is difficult because we have to consider many factors, from relevance to objectives to the complexity of the modalities".

Similarly, another teacher from School 1 commented on the workload issue:

"Grading multimodal questions is much more time-consuming. We have to check not only the written responses but also how students interpret images or other elements".

These challenges suggest that teachers' reluctance to implement multimodal assessments is not due to a lack of interest, but rather a reflection of systemic barriers, such as limited training and high workloads.

B. *Discussion*

The findings of this study provide valuable insights into the current state of multimodal literacy assessment practices in Indonesian secondary schools under the Merdeka Curriculum. These findings reveal several key issues that must be addressed to align assessment practices with curriculum goals, particularly in relation to multimodal literacy. This section discusses the dominant reliance on text-based assessments, superficial use of multimodal stimuli, limited cognitive

demand of tasks, and challenges faced by teachers in the implementation of multimodal assessments. These findings are discussed in light of global practices and the challenges of implementing multimodal assessments in developing contexts.

(a). Dominance of Text-Centered Assessment

One of the most striking findings of this study is the overwhelming reliance on written discourse in assessments. Nearly 70% of the items were based solely on written text, with minimal use of other modalities, such as infographics, images, or audiovisual materials. This finding is consistent with previous research showing that despite the global recognition of multimodal literacy, written texts continue to dominate assessments in many educational systems, even in contexts where multimodal literacy is considered essential (Tan et al., 2020). The lack of visual and audiovisual elements in Indonesian assessments is concerning, as it limits students' opportunities to engage with the multimodal texts that they encounter daily in their digital environments (García & Kleifgen, 2020; Stockwell, 2018).

In comparison, countries such as Australia and Singapore have integrated multimodal texts into their assessments, recognising the importance of evaluating students' abilities to decode and synthesise meaning from both visual and verbal sources (Lim & Unsworth, 2023). The absence of multimodal stimuli in Indonesian assessments suggests that Indonesian students are not adequately prepared to engage with multimodal texts, which are increasingly prevalent in academic and everyday contexts. As García and Kleifgen (2020) emphasise, literacy in the 21st century requires the ability to interpret and synthesise meaning across linguistic and visual forms, a competency that is not being adequately addressed in current Indonesian assessments.

(b). Stimuli: Between Decoration and Pedagogy

Another significant finding concerns the use of multimodal stimuli in the learning process. While some multimodal elements were included in the assessments, a considerable portion (32.87%) was found to be ineffective, as students could answer the questions without engaging with the multimodal materials. This suggests that in many cases, multimodal stimuli were used for decorative purposes rather than being meaningfully integrated into tasks. This finding aligns with what Yin et al. (2024) refer to as "tokenistic multimodality", where visual resources are included in assessments but do not contribute to the learning process.

This issue is not unique to Indonesia; similar patterns have been observed in other educational systems where multimodal elements have been incorporated without a clear pedagogical rationale for their inclusion. International best practices emphasise that multimodal resources must be carefully aligned with learning objectives to enhance their validity (Suleiman & Hussein, 2024; Xu et al., 2023). For example, in Canada, multimodal tasks are intentionally designed to stimulate reflection and critical analysis, ensuring that visual and textual elements work together to foster higher order thinking (Ding et al., 2022). In contrast, the Indonesian case demonstrates that without a clear alignment between multimodal stimuli and assessment objectives, these elements can become superficial, undermining their potential to enhance the learning process.

(c). Cognitive Levels and the HOTS Gap

The distribution of cognitive levels in the assessments also revealed a significant gap between the goals of the Merdeka Curriculum and the actual tasks implemented in the classroom. Most of the tasks (nearly 70%) focused on lower-order thinking skills (LOTS), such as remembering and applying, while only a small percentage (1.67%) required higher-order thinking skills (HOTS), such as evaluation and creation. This imbalance between LOTS and HOTS is concerning because the Merdeka Curriculum explicitly aims to promote higher-order thinking among students, encouraging them to engage critically with content and create new knowledge (Anwas et al., 2022; Kosasih et al., 2022).

Research has shown that multimodal tasks can effectively promote HOTS development by engaging students in analytical reasoning, creativity, and problem-solving (Pantaleo, 2024). However, in Indonesia, teachers have reported difficulties in designing HOTS-oriented multimodal questions, highlighting the time-consuming nature of creating such tasks and the lack of professional development opportunities for teachers. This finding suggests that the Merdeka Curriculum's emphasis on higher-order thinking cannot be fully realised unless multimodal assessments are designed to promote these skills. Furthermore, systemic barriers, such as large class sizes and high workloads, exacerbate the challenges teachers face in implementing multimodal assessments (Choi & Yi, 2016; Molavi, 2024).

(d). Teacher Challenges: Structural and Capacity Constraints

The teachers in this study reported several challenges in designing and implementing such assessments. These challenges are primarily related to the selection of appropriate multimodal stimuli, the time-intensive nature of grading multimodal tasks, and a lack of professional training in the design of multimodal assessments. These findings are consistent with international research, which highlights that teachers often struggle to integrate multimodal tasks into their assessments because of a lack of resources, support, and confidence (Hafner & Ho, 2020; Jones et al., 2020).

The time burden associated with grading multimodal tasks was particularly significant in the present study. Teachers reported that evaluating students' responses to multimodal tasks was much more time-consuming than grading traditional text-based assessments. This is particularly challenging in Indonesia, where large class sizes and limited institutional support place additional strain on teachers. Without adequate training and institutional support, teachers are unlikely to incorporate multimodal elements into their assessments, even when they recognise the potential benefits.

(e). Theoretical and Practical Implications

The findings of this study have significant implications for both theory and practice. Theoretically, this study contributes to the global literature on multimodal literacy by highlighting gaps in multimodal literacy assessment, particularly in developing contexts such as Indonesia. Empirically, it provides valuable evidence from Indonesia, a country that has been largely overlooked in global discussions of multimodal literacy. Practically, this study underscores the need for systemic efforts to build teacher capacity, provide institutional support, and develop clearer assessment frameworks that align multimodal designs with cognitive demand.

At the national level, the findings point to the need for stronger coherence between curriculum, pedagogy, and assessment in Indonesia's teacher-education programmes. The misalignment between the goals of the Merdeka Curriculum and current assessment practices highlights the importance of developing a more systematic approach to multimodal literacy assessments. At the international level, the Indonesian case contributes to understanding how systemic and capacity-related challenges can hinder the effective implementation of multimodal assessments in resource-constrained settings.

V. CONCLUSION

This study examined multimodal literacy assessment practices in Indonesian secondary schools under the Merdeka Curriculum, focusing on reading and viewing strategies in English. The analysis of 210 assessment items and teacher interviews revealed several key issues. First, there is a consistent reliance on text-based assessments, with minimal use of multimodal stimuli, such as images, infographics, and audiovisual materials. Second, the multimodal stimuli included were often ineffective because they did not contribute meaningfully to student learning. Finally, the assessments predominantly targeted lower-order thinking skills, with few tasks requiring higher-order skills such as evaluation and creation. These findings suggest that current assessment practices are not fully aligned with the goals of the Merdeka Curriculum, which aims to foster critical thinking and multimodal literacy among students in the learning process.

This study highlights the need for significant improvements in the integration of multimodal elements into the assessments. The dominance of written texts, coupled with the superficial use of visual and audio-visual resources, limits students' opportunities to engage with the multimodal texts they encounter daily in the digital age. To better align assessments with the goals of the Merdeka Curriculum, it is crucial to ensure that multimodal elements are meaningfully integrated into tasks to enhance engagement and learning outcomes. Furthermore, assessments must be designed to promote higher-order thinking skills, particularly in the evaluation and creation of content across different modalities.

Teacher interviews revealed several challenges in designing and implementing multimodal assessments. These include difficulties in selecting appropriate multimodal stimuli, the time-consuming nature of grading multimodal tasks, and a lack of professional development in multimodal assessment designs. These challenges suggest the need for more comprehensive teacher training and institutional support to enable the effective implementation of multimodal assessment practices. The development of clear frameworks and guidelines for multimodal assessments is also essential to ensure that these assessments contribute meaningfully to students' literacy development.

This study makes several important contributions to existing literature. Theoretically, this study enriches the global literature on multimodal literacy by exploring the often-overlooked dimensions of reading and viewing strategies in multimodal assessment. Empirically, it provides valuable insights into Indonesia, a context that has been largely overlooked in the global discussions of multimodal literacy. Practically, it offers recommendations for educators, curriculum designers, and policymakers to align assessment practices with the goals of the Merdeka Curriculum. Specifically, it underscores the need for clearer frameworks, systematic teacher training, and institutional support to ensure the effective integration of multimodal assessments that foster higher-order thinking skills.

Moving forward, addressing the gaps identified in this study is essential. Reforms should focus on integrating multimodal elements into assessments in a pedagogically meaningful way, ensuring that assessments reflect the skills and competencies outlined in the Merdeka Curriculum. Furthermore, efforts should be made to build teacher capacity through professional development programs and provide adequate resources and support to facilitate the successful implementation of multimodal assessments. Additional research is needed to explore the broader implementation of multimodal literacy assessments in different educational contexts, particularly in relation to formative assessment practices and the integration of multimodal literacy into everyday classroom teaching. By addressing these challenges, Indonesia can better prepare its students to meet the multimodal demands of the 21st century.

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