

Rethinking Teacher Literacy: Information Text Competence among Elementary Teachers within Indonesia's Minimum Competency Assessment Framework

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Abstract: This study aim to examined elementary school teachers' information text literacy within the framework of Indonesia's Minimum Competency Assessment (MCA). The study employed a quantitative approach involving 25 elementary school teachers selected through purposive sampling. Data were collected using two researcher-developed instruments: an information text literacy questionnaire and an information-text-based test. The instruments were validated through expert judgment and a limited pilot test prior to administration. Data were analyzed using descriptive statistics and N-Gain to describe teachers' performance across three competencies: identifying information, understanding information, and evaluating and reflecting on information. The findings showed improvement in concept mastery, by mean score increasing from the pre-test and the post-test. Teachers' information text literacy also improved across all assessed aspects, with the highest gain found in identifying information (high), followed by evaluating and reflecting (moderate), while understanding information showed the lowest gain (low). In addition, teachers responded positively to the implemented learning design and was categorized as very practical. These findings indicate that teachers were relatively strong in retrieving explicit information, but still needed support in deeper comprehension and integrative meaning construction. This study provides empirical evidence for strengthening teacher professional development in support of AKM-aligned reading literacy.

Keywords: elementary schools teachers; Indonesia's Minimum Competency Assessment; information text literacy; reading literacy

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Introduction

Information literacy has become a core professional competence for teachers in navigating the demands of 21st-century education. As the volume, accessibility, and complexity of information continue to expand through digital technologies, teachers are required not only to locate information efficiently but also to critically evaluate its credibility, use it ethically, and transform it into meaningful learning experiences. This perspective is consistent with established frameworks that conceptualize information literacy as a set of higher-order practices involving critical evaluation, evidence-based reasoning, and responsible knowledge use (Association of College and Research Libraries, 2016; Fernández-Otoya et al., 2024). Within classroom contexts, such competence is closely linked to teachers' ability to design coherent, technology-integrated instruction and to make informed pedagogical decisions (Yang et al., 2023). Empirical evidence further indicates that teachers' information literacy is positively associated with instructional quality and teaching effectiveness (Chen et al., 2023). Importantly, recent scholarship emphasizes that teacher literacy should not be reduced to technical proficiency but understood as a broader cognitive and pedagogical capacity involving information processing, interpretation, and evaluative judgment (Lee et al., 2024; Nguyen & Habók, 2024).

Within this broader construct, informational text competence—teachers' ability to comprehend, interpret, and critically engage with informational texts—emerges as a crucial yet underexplored dimension. Informational texts, such as expository, argumentative, and procedural texts, present distinct cognitive demands compared to narrative texts, requiring readers to identify key information, integrate ideas across sections, draw inferences,

and evaluate claims based on textual evidence. Literacy research consistently highlights that reading comprehension is a complex, multi-layered process that extends beyond literal understanding (Duke et al., 2021; Brevik, 2019). In this regard, teachers' own understanding of comprehension processes plays a pivotal role in shaping classroom practices and influencing student outcomes (Hudson, 2023). Furthermore, meta-analytic studies demonstrate that strengthening teachers' knowledge of reading comprehension can significantly improve instructional practices and student literacy achievement (Rice et al., 2024; Hudson, 2023). In increasingly digital reading environments, these demands are further intensified, as readers must navigate multiple sources, assess reliability, and synthesize information across texts. Consequently, teachers' competence in engaging with informational texts is not only essential for their own professional functioning but also fundamental to fostering students' critical literacy.

The urgency of this issue becomes more pronounced within the context of Indonesia's educational reform, particularly the implementation of the Minimum Competency Assessment (MCA). As a central component of Indonesia's National Assessment system, MCA emphasizes foundational competencies in reading literacy and numeracy, with a strong focus on students' ability to comprehend and use informational texts in real-life contexts (Pusat Asesmen Pendidikan, 2020). From an international perspective, MCA reflects a shift toward competency-based assessment aligned with global frameworks such as PISA. However, recent data reveal persistent challenges: only 25% of Indonesian students achieved at least Level 2 proficiency in reading literacy in PISA 2022, significantly below the OECD average of 74% (OECD, 2023). These findings suggest systemic issues in literacy development, which cannot be separated from teachers' capacity to design and facilitate effective text-based learning. In this policy landscape, teachers play a central role as mediators of literacy practices, making their informational text competence a critical factor in the success of MCA implementation.

Despite the growing emphasis on literacy and competency-based assessment, existing research in Indonesia has largely focused on students' literacy outcomes (Esti et al., 2023; Inoa et al., 2014), general teacher literacy (Markussen-Brown et al., 2017; Ding et al., 2024), or digital literacy skills (Zhang & Qi, 2026; Harmoko, 2021; Rusydiyah et al., 2020). Limited attention has been given to the specific domain of teachers' informational text competence, particularly in relation to the demands of MCA. Informational text competence plays an important role in supporting teachers' ability to facilitate students' comprehension, critical analysis, and interpretation of factual information. Moreover, the increasing use of informational texts in competency-based assessments requires teachers to possess adequate knowledge and instructional strategies to effectively guide students. This indicates a clear research gap: the lack of empirical evidence examining how well elementary school teachers are prepared to engage with and teach informational texts within a competency-based assessment framework. Addressing this gap is essential for understanding teacher readiness and for informing more targeted interventions in literacy education.

Responding to this gap, the present study reconceptualizes teacher literacy by introducing informational text competence as a distinct and measurable construct that integrates comprehension, critical evaluation, and pedagogical application of informational texts (Susilowati et al., 2026; Trixa & Kaspar, 2024). This constitutes the novelty of the study, as it moves beyond generalized notions of teacher literacy and situates it explicitly within the context of competency-based assessment. By focusing on elementary school teachers, the study also addresses a critical stage of education where foundational literacy skills are developed. Accordingly, this study aims to examine the level and characteristics of informational text competence among elementary school teachers in Indonesia and to analyze its alignment with the expectations of the MCA framework. By profiling teachers' competencies across key dimensions of informational text literacy, the study provides a nuanced understanding of teacher preparedness in supporting text-based learning.

The contributions of this study are threefold. First, it advances the theoretical discourse by refining the concept of teacher literacy into a more specific and operationalizable construct of informational text competence. Second, it offers empirical evidence on the current state of elementary teachers' literacy competence in Indonesia, addressing a critical gap in the literature. Third, it provides practical implications for policymakers, teacher educators, and curriculum developers in designing professional development programs that are better aligned with the demands of MCA and competency-based education. Ultimately, this study contributes to ongoing efforts to strengthen literacy education by aligning teacher competence with national and global assessment frameworks.

Methods

This study employed a quantitative approach (Creswell, 2009) to examine elementary school teachers' informational text literacy within the MCA framework. A total of 25 elementary school teachers participated in the study. The participants were selected through purposive sampling, focusing on teachers who were actively

teaching and involved in text- and information-based instructional activities. This sampling technique was chosen to ensure that participants possessed relevant experience and familiarity with literacy-related instructional practices in elementary education. Demographic information, including years of teaching experience, grade level taught, and school affiliation, was collected as supporting data. These demographic characteristics provided additional context for interpreting the findings and identifying potential variations in teachers' informational text literacy. Furthermore, the collected data contributed to a more comprehensive understanding of teacher readiness in implementing literacy-oriented learning and assessment practices. The quantitative approach enabled the researchers to systematically analyze teachers' competencies and generate empirical evidence related to informational text literacy within the context of MCA.

Data were collected using two researcher-developed instruments: an information text literacy questionnaire and an information-text-based test. The questionnaire was designed to capture teachers' tendencies and instructional practices related to informational texts, including how they access, use, and communicate information in learning contexts. The instrument also explored teachers' perceptions of the importance of informational texts in supporting literacy learning and competency-based assessment. By examining these aspects, the questionnaire provided insights into teachers' experiences and engagement with informational text materials in classroom settings. In addition, the questionnaire was used to gather teachers' responses to the implemented learning design, particularly in terms of its operational, visual communication, and instructional design aspects. This information was valuable for evaluating the practicality and effectiveness of the learning design from the teachers' perspective. Furthermore, the collected responses helped identify strengths and areas for improvement in the implementation of informational-text-based learning activities. The combination of these data sources enabled a more comprehensive assessment of teachers' informational text literacy and their readiness to apply it within the MCA framework.

The test was designed to measure three aspects of information text literacy, namely identifying information, understanding information, and evaluating and critically analyzing information. These aspects were selected because they represent essential competencies required for effective engagement with informational texts and are closely aligned with the objectives of the MCA framework. The test materials consisted of informational texts relevant to elementary education and items requiring evidence-based responses derived from the texts. Through these tasks, participants were expected to demonstrate not only their ability to locate information but also their capacity to interpret and evaluate textual evidence critically. Both instruments were validated through expert judgment focusing on alignment with indicators, clarity of wording, and item measurability. The validation process ensured that each item accurately reflected the intended construct and was suitable for the target participants. After revision, the instruments were piloted on a limited scale to ensure readability and appropriate difficulty levels. The pilot results provided valuable feedback for refining the instruments and improving their effectiveness in measuring teachers' information text literacy accurately.

Data collection was carried out in two stages. First, teachers completed the questionnaire either in person or online within a predetermined timeframe. This stage allowed the researchers to gather information regarding teachers' literacy-related practices, perceptions, and experiences in working with informational texts. Second, teachers completed the informational text literacy test under supervised conditions to ensure consistent administration procedures and minimize potential sources of bias during the testing process. Standardized administration was important to maintain the reliability and comparability of the collected data across participants. In the implementation phase, teachers' performance was also examined through pre-test and post-test results, as presented in the Results section. The comparison of these scores provided evidence of changes in participants' informational text literacy following the learning intervention. The questionnaire further served to evaluate the practicality of the implemented learning design from the participants' perspectives. In addition, teachers' feedback contributed valuable insights into the effectiveness, usability, and overall acceptance of the learning design in supporting informational text literacy within the MCA framework.

The data were analyzed using descriptive statistics, including percentages and mean scores, to describe teachers' achievement in each aspect of information text literacy. Descriptive analysis was selected because it provides a clear overview of participants' performance and enables the identification of patterns across different literacy competencies. Pre-test and post-test results were compared to examine changes in performance across the three assessed competencies. This comparison allowed the researchers to determine whether the implemented learning activities contributed to improvements in teachers' informational text literacy. The extent of improvement was presented using N-Gain, while questionnaire data were analyzed in percentages to describe the practicality of the implemented learning design. The use of N-Gain analysis helped quantify the effectiveness of the intervention by measuring the relative increase in participants' scores. In addition, mastery learning was summarized across upper, middle, and lower groups based on the categorization criteria applied in the study. This categorization provided a more detailed understanding of participants'

achievement levels and facilitated the interpretation of learning outcomes across different performance groups. Furthermore, the combined analysis of test and questionnaire data enabled a comprehensive evaluation of both teachers' literacy competencies and their perceptions of the learning design implemented in the study.

Result and Discussion

To examine the effect of the implemented learning activities, the study first compared teachers' concept mastery before and after the intervention. **Figure 1** presents the comparison between the pre-test and post-test scores, in which the horizontal axis represents the measurement points and the vertical axis shows the mean concept mastery scores. The figure indicates that the mean score increased from 74 in the pre-test to 94 in the post-test, showing a positive change after the learning activities were implemented. This result suggests that the intervention supported teachers' conceptual understanding and provides an initial indication that the learning activities contributed to improved literacy-related performance.

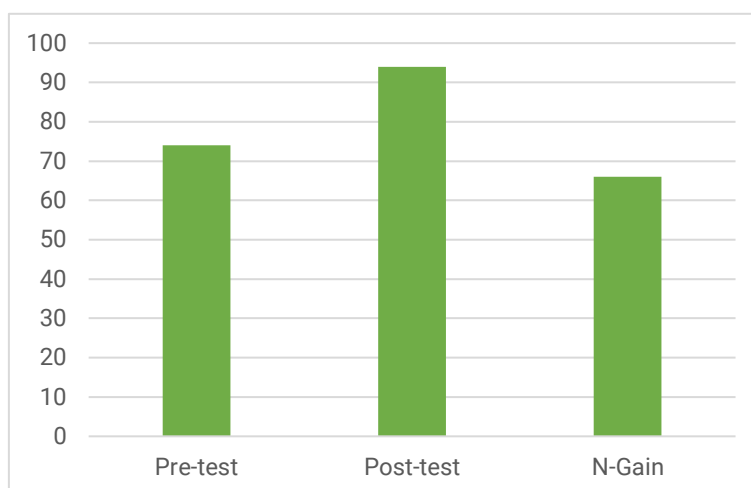


Figure 1. Concept Mastery Test Results (Pre-test and Post-test)

Teachers' information text literacy performance was assessed across three competencies: identifying information, understanding information, and evaluating and reflecting. All three competencies showed improvement from pre-test to post-test, although the magnitude of gain varied across the assessed domains. The largest improvement occurred in identifying information, which increased from 73% in the pre-test to 97% in the post-test, with an N-Gain of 0.89. This finding indicates that teachers were highly capable of locating explicit information and retrieving relevant details directly stated in the text. The substantial increase suggests that the learning activities effectively strengthened participants' ability to recognize key information and navigate informational texts efficiently. By contrast, the understanding competency increased from 56% to 86%, but showed the lowest N-Gain (0.27).

This result may indicate that although teachers achieved higher scores, deeper comprehension processes such as interpreting meaning, making inferences, and connecting ideas within the text remained relatively challenging. Research has consistently shown that inference-making is a critical component of reading comprehension because readers must integrate explicit textual information with prior knowledge to construct coherent meaning. Difficulties in making inferences and connecting information across different parts of a text are often associated with weaker comprehension performance, particularly when readers are required to engage in higher-order thinking processes. By contrast, the understanding competency increased from 56% to 86%, but showed the lowest N-Gain, suggesting that participants may still have encountered challenges in developing deeper conceptual understanding despite overall score improvements.

This finding is consistent with previous studies indicating that expository and informational texts often require readers to make semantic inferences and integrate multiple ideas, which are among the most demanding aspects of comprehension. Meanwhile, the evaluating and reflecting competency improved from 60% to 82%, with an N-Gain of 0.55. The moderate gain in this competency suggests that participants became more proficient in critically analyzing information and reflecting on textual content, skills that are essential for supporting higher-order thinking and competency-based assessment practices. Furthermore, the improvement in evaluating and reflecting may indicate that the learning activities provided opportunities for participants to justify conclusions using textual evidence and engage in critical reasoning. Since inferential thinking is considered a prerequisite for higher-order thinking, strengthening these competencies can contribute to teachers' ability to facilitate more analytical and evidence-based literacy instruction in the classroom.

Table 1. Teachers' Information Text Literacy Test Results Across Competencies (Pre-test, Post-test, and N-Gain)

Test	Competency	Pre-test (%)	Post-test (%)	N-Gain
Information Text Literacy	Identifying Information	73	97	0.89
	Understanding	56	86	0.27
	Evaluating and reflecting	60	82	0.55

The pattern in **Table 1** suggests that teachers found information retrieval tasks easier than deeper comprehension tasks. This result is consistent with literacy research showing that locating explicit information is generally less cognitively demanding than integrating ideas, making inferences, and constructing coherent meaning across a text (Duke et al., 2021; Quigley, 2020). In informational reading, comprehension is not limited to identifying isolated facts, but also involves connecting ideas, monitoring meaning, and interpreting text structure and purpose. Therefore, the relatively low gain in the understanding aspect may indicate that teachers still experienced difficulty in inferential and integrative reading processes. This interpretation is also supported by Hudson (2023), who found that teacher knowledge related to deeper comprehension processes remains a critical factor in literacy instruction. Supportive evidence also comes from recent reviews showing that teacher information and digital literacy development remains uneven and still requires more focused professional support in basic education settings (Fernández-Otoya et al., 2024).

The improvement in evaluating and reflecting also deserves attention. Although its gain was lower than identifying information, the increase from 60% to 82% suggests that teachers became more capable of engaging critically with informational texts, including judging relevance, assessing claims, and providing text-based justification. This finding is important because information text literacy in the MCA context requires more than access to information; it also requires reflective and evaluative reading. Thus, the results indicate that the implemented learning activities were not only associated with better literal comprehension, but also with stronger critical engagement with texts, even though this development was not yet as strong as in the retrieval aspect.

Table 2. Teachers' Responses to the Learning Design Based on Practicality Aspects (Operational, Visual Communication, and Instructional Design)

Group	Assessment Aspect					
	Operational		Visual Communication		Instructional Design	
	Score (%)	Category	Score (%)	Category	Score (%)	Category
Upper	75	Practical	76	Practical	78	Practical
Middle	82	Very Practical	83	Very Practical	84	Very Practical
Lower	74	Practical	79	Practical	83	Very Practical
Average (%)	81 (Very Practical)					

Explanation in **Table 2** strengthens this interpretation by showing that teachers responded positively to the implemented learning design. The average practicality score reached 81%, which falls into the "very practical" category. In more detail, the middle group rated all three aspects operational, visual communication, and instructional design as very practical, while the upper and lower groups gave ratings ranging from practical to very practical. These findings suggest that the learning design was feasible, understandable, and manageable for teachers with different initial levels of performance. This point is important because an instructional design that is perceived as practical has greater potential to be adopted in professional learning contexts. In this sense, the positive practicality ratings indicate that the intervention was not only beneficial in terms of outcomes, but also acceptable in terms of implementation. A key component of facilitating students' understanding of the knowledge-making process and enhancing their ability to use and produce a variety of information and knowledge products is information literacy (Zhang, 2025; Saptasari et al., 2019).

This practicality finding also has broader implications for teacher professional development. Previous studies have shown that literacy-focused professional development tends to be more effective when teachers perceive it as directly relevant to classroom practice and when the learning activities can be implemented in a manageable way. Such professional development programs not only enhance teachers' instructional competencies but also increase their confidence in applying new literacy strategies in authentic learning situations. When teachers view an intervention as practical and beneficial, they are more likely to adopt and sustain its implementation in their daily teaching practices. Lipka et al. (2025), for example, found that professional development in literacy can strengthen teachers' knowledge and self-efficacy when it is connected to implementation and classroom-oriented support. Seen from this perspective, the current study suggests that the implemented learning design may serve as a promising model for strengthening teachers' readiness to

engage with informational texts in literacy-oriented instruction. Furthermore, the positive perceptions reported by participants indicate that the learning design has the potential to support long-term improvements in literacy teaching practices. This finding highlights the importance of designing professional development initiatives that are both pedagogically meaningful and practically applicable in elementary school contexts.

Table 3. Mastery Learning Percentage by Group (Upper, Middle, and Lower)
Based on Pre-test and Post-test Results

Group	Number of Teachers	Mean Pre-test	Mean Post-test	N-Gain	Test Mastery			
					Mastery (%)		Non-Mastery (%)	
					Pre	Post	Pre	Post
Upper	6	66	86	0.59	20	100	80	0
Middle	14	60	82	0.55	7	86	93	14
Lower	5	58	75	0.40	25	75	75	25
Overall Average	25	—	—	0.53	12	88	88	12

Further evidence of improvement appears in **Table 3**, which presents mastery learning outcomes across upper, middle, and lower groups. The upper group achieved 100% post-test mastery with an N-Gain of 0.59, the middle group achieved 86% mastery with an N-Gain of 0.55, and the lower group achieved 75% mastery with an N-Gain of 0.40. These findings indicate that participants at different achievement levels benefited from the intervention, although the magnitude of improvement varied among groups. The higher N-Gain values observed in the upper and middle groups suggest that participants with stronger initial competencies were able to maximize the learning opportunities provided by the intervention. Overall, the average N-Gain reached 0.53 and post-test mastery reached 88%, indicating meaningful improvement for most participants. The high level of post-test mastery further demonstrates the effectiveness of the learning design in supporting teachers' informational text literacy development. These results show that the intervention was associated with progress across all participant groups, not only among those who started from a stronger position. Moreover, the improvement observed in the lower group suggests that the intervention has the potential to reduce performance gaps and support more equitable learning outcomes among teachers with diverse initial competency levels.

At the same time, the remaining non-mastery in the middle and lower groups indicates that the gains were not evenly distributed. This uneven distribution reinforces the earlier finding that deeper understanding remained the most challenging aspect of information text literacy. It suggests that although teachers benefited from the learning activities, those with lower initial performance may still need more intensive scaffolding to strengthen inference-making, cross-paragraph integration, and coherent meaning construction. These findings highlight the importance of recognizing individual differences in literacy development and providing instructional support that responds to varying levels of teacher readiness (Susilowati et al., 2026; Wu et al., 2022). In particular, teachers who experience difficulties in higher-order comprehension may require additional guided practice, feedback, and opportunities to engage with complex informational texts. For this reason, future teacher support should not only introduce AKM-oriented literacy demands, but also provide differentiated opportunities for teachers to practise and reflect on higher-order comprehension processes. Such an approach may help ensure that improvements in informational text literacy are more evenly distributed across participants. Ultimately, sustained and targeted professional development can contribute to stronger literacy competencies and greater preparedness for implementing competency-based assessment practices in elementary education (Basabe & Galigao, 2024).

Taken together, the findings show that the implemented learning activities were associated with improvement in concept mastery, information text literacy, and teachers' positive perceptions of the learning design. Theoretically, these results reinforce the view that information text literacy is multidimensional and does not develop equally across all competencies. Practically, the study suggests that teacher preparation for MCA-aligned literacy should go beyond familiarity with assessment formats and should place stronger emphasis on deep comprehension, critical reading, and evidence-based interpretation of informational texts. Nevertheless, the findings should be interpreted with caution because the study involved only 25 teachers and focused on a limited participant group. As a result, the study offers useful empirical indications, but its findings should not yet be generalized broadly. Future studies are therefore needed with larger samples and stronger methodological controls in order to examine whether the same patterns remain consistent across wider educational contexts.

Conclusion

This study shows that elementary school teachers' information text literacy improved across all assessed aspects, with the strongest gain in identifying information, lower improvement in understanding, and positive responses to the implemented learning design. These findings indicate that MCA-aligned literacy support has the potential to strengthen teachers' readiness for text-based instruction, while also highlighting the need to place greater emphasis on deeper comprehension, especially inference-making and integrative meaning construction. However, the findings should be interpreted cautiously because the study involved only 25 teachers, which limits the broader generalizability of the results. Future studies are therefore recommended to involve larger samples and stronger methodological controls in order to provide more robust evidence on improving higher-order information text literacy among teachers. In addition, future research could investigate the effectiveness of different instructional approaches, such as collaborative learning, inquiry-based learning, or digital literacy interventions, in enhancing teachers' informational text literacy competencies. Longitudinal studies are also needed to examine the sustainability of literacy gains over time and to determine whether improvements in teachers' competencies translate into better literacy outcomes among students. Furthermore, future research may explore the relationship between teachers' informational text literacy and their classroom instructional practices to gain a deeper understanding of how literacy competencies influence teaching effectiveness within competency-based assessment contexts. Such investigations would contribute to the development of more comprehensive and evidence-based professional development programs for elementary school teachers.

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