

Freedom to Learn' in Merdeka Curriculum: AI-Enhanced Insights into Emotional, Aesthetic, and Critical Reading in 10th Grade Textbook

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ABSTRACT

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Despite Indonesia's curriculum reform focuses on critical thinking, reading literacy skills remain stagnant due to limited research exploring affective engagement in materials aligned with the Merdeka Curriculum. This study explores whether English textbooks for 10th grade under the Merdeka Curriculum are capable of stimulating critical reading skills through emotional and aesthetic aspects. By analyzing official textbooks in the context of Indonesian high schools, the study applied Ania Lian's "Reading for Emotion and Aesthetics" framework using AI-assisted qualitative coding, employing customized rule engineering to identify emotional and aesthetic elements. Findings reveal minimal emotional engagement and a strong emphasis on literal comprehension, exposing a disconnect between the curriculum's rhetoric of empowerment and the design of instructional materials. This study emphasizes that achieving true critical literacy requires emotionally rich texts, flexibility in teaching, and systemic alignment across policy, materials, and classroom practices.

Introduction

Education is a strategic instrument for strengthening a nation's competitiveness in global political, economic, and technological arenas (Lubis & Aryansah, 2024). The continuous changes to the curriculum reflect the Indonesian government's ongoing effort to adapt the education system to the nation's evolving needs, from building national identity post-independence to preparing students for a globalized world (Hidayat et al., 2025). Over the past two decades, Indonesia has enacted multiple national curriculum reforms. Starting from the first national curriculum, the 1947 Curriculum (Rentjana Pelajaran 1947) focused on instilling

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nationalism and moral values to replace the colonial education system, up to the Merdeka Curriculum launched in 2022, which offers flexibility, localized adaptation, and project-based learning aligned with digital literacy and global challenges (Ni'am & Raikhan, 2025). However, Indonesia's educational reforms have not improved international assessment outcomes, as reflected in persistently low PISA scores (Hewi & Shaleh, 2020; Suprpto, 2016).

The Program for International Student Assessment (PISA), organized by the OECD, evaluates the reading, mathematics, and science literacy of 15-year-old students every three years, and Indonesia has participated in PISA since its inception in 2000 (Nugrahanto & Zuchdi, 2019). Indonesia has consistently performed poorly in PISA assessments since joining in 2000, maintaining rankings in the bottom tier across all assessment cycles (Bilad et al., 2024). As reflected in the table below, Indonesia's PISA scores have been improving since its participation began in 2000.

Table 1.

Indonesian PISA Scores 2000-2022

Year	Assessed Material	Indonesian Score	Indonesian' Rank	Number of Participating Countries
2000	Maths	-	-	41
	Science	-	-	
	Reading	371	39	
2003	Maths	360	38	40
	Science	-	-	
	Reading	382	39	
2006	Maths	391	50	56
	Science	393	50	
	Reading	393	48	
2009	Maths	371	61	65
	Science	383	60	
	Reading	402	57	
2012	Maths	375	64	65
	Science	382	64	
	Reading	396	62	
2015	Maths	386	63	69
	Science	403	62	
	Reading	397	61	
2018	Maths	379	73	79
	Science	396	71	
	Reading	371	74	
2022	Maths	366	77	80
	Science	383	74	
	Reading	359	73	

The preceding table makes it clear that Indonesia is at the bottom. Beyond raw scores, this pattern suggests that the country's education system is falling short of preparing 15-year-olds with vital 21st-century skills, such as critical thinking, problem-solving, and practical literacy (Rohmah et al., 2024). Reading performance remains below the international mean. In a world

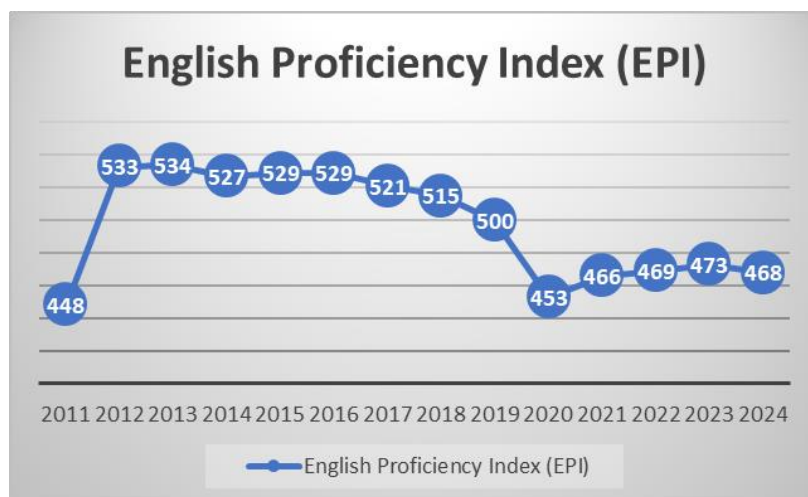
of increasingly complex information, the ability to read critically is essential for students to understand, interpret, and evaluate texts effectively (Niculescu & Dragomir, 2023). PISA 2022 reports that only about one in four 15-year-old students in Indonesia attained reading proficiency at Level 2 or higher (OECD, 2023). Level 2 readers can locate information using specified criteria, identify the central idea in a moderately long passage, and consider a text's form and purpose with some support. Roughly 75% of Indonesian students remain below this basic proficiency threshold. By comparison, in high-performing systems such as Finland, Canada, Japan, and South Korea, the share of students at this basic level is much smaller (around 10–25%) (OECD, 2023). Almost no Indonesian students reached Level 5 or above, while the OECD average is about 7% (OECD, 2024b). Level 5 readers can work with abstract concepts, make sense of complex material, and use subtle cues to distinguish opinion from fact. Taken together, these findings imply that the majority of Indonesian students lack the crucial reading comprehension skills needed for success in school and lifelong learning.

According to PISA, reading literacy refers to the mental processes through which people comprehend, use, judge, reflect on, and interact with texts to meet personal goals, expand their knowledge, and participate in societal life (OECD, 2024a). PISA's reading framework is structured around three interconnected components: situation (context), text (content and format), and processes (cognitive strategies), which determine the selection of texts and tasks and the kinds of comprehension demanded of students (Nugrahanto & Zuchdi, 2019). PISA 2018, which prioritized reading literacy, employed complex multi-text materials that blend genres and require cross-referencing (OECD, 2019). By contrast, the prevailing approach to reading instruction in Indonesia emphasizes speed and rote learning, with comprehension confined largely to literal understanding (Krismanto et al., 2015; Tahmidaten & Krismanto, 2020). Typical student worksheets (LKS) present single, linear texts without cross-references and use short items that ask “who,” “what,” and “when” questions, with tasks dominated by lower-order thinking (LOTS) (Tahmidaten & Krismanto, 2020).

Along with the Program for International Student Assessment (PISA), the English Proficiency Index (EPI) also reflects Indonesia's low English proficiency. Although English is the global lingua franca in many sectors such as business, education, technology, and international relations, English language proficiency in Indonesia, which was at an intermediate level from 2012 to 2016, continues to decline to a low level by 2024 (Parupalli, 2019). As shown in the accompanying chart.

Figure 1.

Indonesian EF EPI Score 2011-2024



This decline is important to note, as the EF research shows that English proficiency is closely linked to the Human Development Index. Singapore's global EPI (642) is consistent with its 9th place ranking in the HDI (0.949), while Indonesia's low EPI (469) corresponds to its 11th place ranking (0.713). Since English is the language of the ASEAN Economic Community, this disparity directly affects Indonesia's competitiveness, region, and worker quality (Zainuddin, 2023).

Combined data from PISA and EPI show that reforms in the Indonesian curriculum are superficial. Broad transformations are needed in the education system (Ellen & Sudimantara, 2023). Transformative learning includes changes in reference frameworks through critical reflection and interpretation (meaning-making) of experiences (Fleming, 2018; Taylor, 2008). As Lotto (2014) emphasized, learning constitutes a multisensory experience that engages multiple cognitive and sensory pathways. Hence, modern digital technology offers unparalleled opportunities for multisensory learning environments through interactive technology and sensory devices (Laukkanen et al., 2022). However, realizing this potential requires curriculum changes that respond to social, economic, and technological developments; it also requires creating engaging and meaningful learning experiences (Rasyidi, 2019; Yanti et al., 2023).

Although the introduction of the Merdeka Curriculum in 2020 aimed to transform learning, Indonesia's poor performance in PISA, especially in reading, indicates deep-rooted problems in its implementation (Wahyudin et al., 2024). This research addresses these shortcomings by reviewing textbooks used as national teaching material. As stated by (Dewi & Alam, 2022), textbooks have a significant impact on the quality of learning; they are resources that expand knowledge and improve teaching standards.

The core approach is Reading for Emotions, developed by Ania B. Lian (2017), which is based on the idea that emotions are personal reactions to situations that are important to us. Neuroaesthetic principles further explain why certain visual features draw attention, arguing

that these preferences stem from universal neural processes of visual interpretation (Ramachandran & Hirstein, 1999). Furthermore, when incorporating aesthetics and emotions into teaching, students become more interested and active. They are more absorbed in processing information and storing it in their brains. Moreover, because of this, students will learn very well. Furthermore, this study explores whether the textbook design has the emotional and aesthetic capacity to support critical literacy skills that are currently lacking among students in Indonesia. This framework is also compatible with AI-driven educational technology, aligning with Indonesia's goals for digitalization and ASEAN's vision for technology development. Digitalization in education is one way to achieve Sustainable Development Goal 4, which aims to develop inclusive and high-quality education (Azoulay, 2021; Sudimantara et al., 2025a).

Literature review

Reading Literacy in Indonesia

Reading literacy skills are important for students to learn and succeed in school (Delgadova, 2015). However, when looking at international test performance, especially in PISA on reading literacy, Indonesia did not achieve satisfactory results, indicating that Indonesian students are weak in reading. This is because Indonesia has been participating in PISA since 2000, yet its students consistently score below average in reading. Based on data from the OECD (2019), Indonesia's average reading literacy score in 2018 was 371, which was still well below the OECD average at that time, 487. Because of this, many research studies have sought to identify the problem and find a solution.

Santi et al. (2024) observed PISA results in Indonesia from 2000 to 2018 and realized that despite a slight improvement over 20 years, Indonesian students still lag behind other countries in reading. Based on their research, it is concerning that nearly 70% of 15-year-old Indonesian students still cannot read well. This means that they still lack the skills needed to function in today's society. Harsiati (2018) also looked at the areas in which students were struggling with reading. It turns out that they do not understand or analyze texts very well, are not satisfied with their writing skills, and also have difficulty combining information from different sources. These higher-order thinking skills are essential for academic success and critical thinking in the 21st century.

Critical Reading

In today's learning, reading is not just recognizing letters. It is a difficult task that involves the mind, emotions, and the handling of social and cultural issues. According to Butterfuss et al. (2020), reading is a dynamic process involving the reader, the text, and the situation. That means people do not just read to get information. Instead, they think and interpret. In education, reading is important because it helps students learn and acquire intellectual self-regulation. Akin et al. (2015) say that comprehension, interpretation, information acquisition, and the use of

writing depend on our reading. However, with the abundance of information and diverse opinions available today, reading is important not only for research but also for our responsibilities as citizens (Braten & Braasch, 2017). Therefore, educators need to change the way they teach reading, especially if the previous system was unable to prepare students for today's challenges.

According to Akin et al. (2015), critical reading is an active, analytical way of engaging with the text, asking questions, evaluating whether the information is credible, connecting their knowledge and experience, and making various interpretations. Critical reading does not mean that people only criticize the text or look for mistakes. DiYanni (2017) explains that true critical reading begins with understanding, integrating, and comprehending the text before reviewing it in depth.

The recursive nature of critical reading, as highlighted by DiYanni (2017), reveals that good critical readers understand that interpretations evolve over time and that reading is a continual negotiation of meaning rather than a quest for a single correct answer. This perspective aligns with Pérez's (2023) the distinction between critical thinking as a cognitive process and critical competence as the practical application of that thinking in real-world contexts. According to Pérez, reading serves as the primary channel through which critical competence develops, a claim supported by international assessments like PISA, which confirm that the highest levels of reading literacy require not mere memorization but sophisticated skills in critical evaluation, synthesis, and reflection.

The practical challenges in developing critical reading skills are illuminated by Larking's (2017) empirical findings in advanced English-language learning contexts. A survey of 31 EFL students revealed a significant gap between the use of basic comprehension strategies and critical reading strategies. While 37 percent of students reported regular use of strategies such as skimming or scanning, only 18 percent consistently employed critical strategies such as identifying bias, evaluating credibility, or questioning underlying assumptions. This disparity highlights the need for more intentional pedagogical approaches that explicitly cultivate critical reading capabilities.

The recognition that critical reading cannot be reduced to a purely cognitive process marks a significant advancement in our understanding of literacy development. Pekrun's (2022) groundbreaking synthesis of eight recent studies reveals that emotions fundamentally mediate students' engagement with texts. His research demonstrates that epistemic emotions—particularly curiosity and productive confusion—often deepen understanding and facilitate conceptual change. Conversely, emotions such as threat or frustration can inhibit belief revision, especially when texts challenge readers' initial beliefs or worldviews. This finding has profound implications for how we design reading experiences and support learners in engaging with challenging or controversial texts.

Transformative Learning and Multisensory Approaches

Transformative learning emerges as a pedagogical response to the limitations of traditional

educational approaches. Schalkwyk et al. (2019) characterize transformative learning as emphasizing critical reflection, experiential learning, and perspective transformation. This approach requires courage to question assumptions, openness to discomfort, and willingness to change fundamental ways of thinking and being. Importantly, as Enkhtur & Yamamoto (2017) noted, transformative learning is not a linear process, but once perspective transformation occurs, the shift is irreversible.

The gradual nature of perspective change necessitates supportive learning environments, as emphasized by Crane & Sosulski (2020) Sifakis & Kordia (2019). Transformative learning extends beyond linguistic abilities to build critical awareness and global competencies essential for an increasingly interconnected world. The contrast between traditional and transformative approaches is stark. While traditional education focuses on mastering factual and technical information through memorization and mechanical practice, transformative learning emphasizes intellectual goals that highlight thinking, forecasting, analyzing, questioning, and adapting to diversity and change (A. P. Lian, 2017). Crucially, transformative learning engages all dimensions of human experience, not just logic and analysis but also emotions, spirituality, and physical experiences (Taylor, 2008).

The multisensory nature of transformative learning recognizes that learning is inherently a multisensory experience (A. B. Lian et al., 2017; Lotto, 2014). The term “multisensory” here extends beyond the conventional five senses to encompass the brain’s capacity to judge the quality of its own perceptions, doubt the accuracy of its memories, and analyze the outcomes of its actions (Seth, 2014). Learning occurs in two stages: first, making external signals perceptible enough to require attention by presenting them in ways that differ from typical encounters; second, improving comprehension of these newly detected signals to form new meaning patterns (A. Lian & Sussex, 2018).

Reading for Emotion and Aesthetics Framework

UNESCO (2021a) advocates that empathy, sympathy, and collaborative problem-solving must be encouraged, not just individualistic competition and rote memorization. Students must be prepared to face the complex issues of the 21st century, such as climate change, fake news, and an uncertain future of work. Hence, the focus should not be only on intellectual growth but also on emotional and social growth. Indonesia faces the same problems. Although enrollment has increased rapidly, from 85% to 106% in primary schools, 18% to 89% in secondary schools, and 2% to 36% in tertiary institutions from 1972 to 2018 (World Bank, 2020), the quality of learning has not improved (Rosser et al., 2022). This means Indonesian education needs transformative pedagogical approaches that must be more emotionally engaging and appealing to students.

In the need for transformative learning, the Reading for Emotion and Aesthetics framework is one multisensory approach that is suitable for learning because it views a text as more than just letters. Ania Lian has been developing this framework since 2017, based on Panksepp’s (1998) the statement that emotion is a personal experience when someone finds something important

to them. This method is not just about reading and understanding the text, but more about making the readers feel close to what they read through their emotions. In Indonesia, people have been using the Systemic Functional Linguistics method, but it can stifle creativity (Baehaqi et al., 2025). Therefore, Reading for Emotion is like a breath of fresh air. It uses emotions to analyze texts and connect them with students' perceptions based on the idea that everything humans do has a reason and emotion behind it (A. B. Lian, 2017). This method is important for teaching students to think precisely because it encourages them to think beyond what is happening to why and how (Sudimantara et al., 2025b).

There are six emotional stages in Reading for Emotion that engage students in actively reflecting on the text with their emotions and perceptions. The first stage is focus, where emotions are built up strongly in the text, making students interested in reading further. The second is disturbance, a stage that is disruptive and contrary to what has been built up in focus. It makes students wonder and see the contrasts in the story. Dialogue is a stage that analyzes the problems that occur and invites readers to identify the text from various perspectives. Development is a stage where emotions grow and diversify within the text. Resolution is a stage where emotions begin to stabilize as the problems in the disturbance are resolved. Finally, Moral contains the message conveyed in the text (A. B. Lian, 2017, 2024; Sudimantara et al., 2025b).

Based on contemporary neuroscience, emotions are important for understanding the world. According to Lian (2025), emotions help humans choose what is important and make sense of things. Panksepp (1998) stated that emotions regulate human thinking, thereby influencing human actions, memories, and perceptions. Solms (2013) added that emotions shape human interactions with others and provide guidance for understanding and interpreting experiences. Reading for Emotions uses the unique capabilities of the right hemisphere of the brain to deepen understanding of reading (A. B. Lian, 2024). If the left hemisphere of the brain is purely analytical and focuses on linguistics, the right hemisphere connects things and attends to context, making understanding more comprehensive (Seth, 2014).

The Reading for Emotion framework specifically utilizes the unique capabilities of the right brain hemisphere to deepen textual understanding (A. B. Lian, 2024). While the left hemisphere is associated with analytical and linguistic processing, the right hemisphere offers a more holistic view, integrating various interconnected processes and contextual richness (Seth, 2014). The right hemisphere's superiority in detecting anomalies and triggering paradigm shifts validates Reading for Emotion's approach of leveraging holistic capabilities to move beyond linguistic structure toward emotional and contextual understanding.

Aesthetics becomes an important dimension integrated with Reading for Emotion to form the Reading for Emotion and Aesthetics framework. This includes the use of the reader's imagination, where the senses and feelings are awakened to better understand what is being read (Lian, 2024). In this way, readers learn to appreciate not only the message's content but also how it is conveyed. Thus, readers become more profound and complex in their interpretive exploration of the text's meaning (Sudimantara et al., 2025b).

The principles of aesthetics stated by Ramachandran & Hirstein (1999) provide a deeper understanding of how the brain works with what it sees and reads to develop meaning and influence feelings. These principles include: (1) isolation, focusing on one thing to make its impact stronger; (2) peak shift makes the contrast stronger for heightened effect; (3) contrast helps brain function see things differently; (4) perceptual grouping, to see relationships and to produce a unified whole; (5) symmetry and balance, regularity that the brain processes more efficiently; (6) perceptual problem solving, involving the brain to imagine interpretative challenges; (7) generic viewpoint, connecting with something familiar; and (8) metaphor, finding similarities in different things.

Curriculum Reform and the Merdeka Curriculum

The Merdeka Curriculum in Indonesia promises major changes in education to address problems and make it easier for students to learn in their own way. This is being done to solve the learning crisis caused by the pandemic (Herman et al., 2023). The Merdeka Curriculum was also developed in response to complaints about the 2013 Curriculum. According to Wahyudin et al. (2024), there are problems with the 2013 curriculum that need to be addressed. First, students do too much work at school, where teachers mistakenly believe that students have mastered the material if they complete the curriculum, rather than ensuring that children truly understand it (Sisdiana et al., 2019). Second, school learning does not meet the needs of companies, especially vocational schools, even though students study 46 to 50 hours a week (Djaelani et al., 2019). Third, teachers are busier with administrative tasks, such as lesson planning, than with teaching due to established regulations (Ikhsan & Hadi, 2018). Finally, the curriculum is too rigid, and schools or teachers are not given the freedom to adapt it to their circumstances.

The Merdeka Curriculum establishes a new philosophical foundation centered on holistic student development. Fitra (2023) emphasizes developing individual potential, independence, and essential 21st-century skills: creativity, collaboration, communication, and critical thinking. This represents a significant departure from previous emphases on memorization and standardized content delivery. The Merdeka Curriculum explicitly incorporates international standards for Education 4.0. The curriculum emphasizes four core competencies essential for contemporary success, as stated by World Economic Forum (2016): global citizenship, innovation and creativity, technological literacy, and interpersonal skills. A defining feature of the Merdeka Curriculum is its unprecedented flexibility in implementation. The principles of meaningful, mindful, and joyful learning provide the pedagogical framework for developing these competencies, ensuring that global skills emerge from locally relevant, emotionally engaging experiences. Schools receive autonomy to adapt content and approaches to local contexts while maintaining alignment with national standards. This flexibility extends to teachers, who can make professional judgments about instructional approaches rather than following rigid prescriptions.

Textbooks in ELT

In recent years, English textbooks have undergone many changes. A textbook is no longer just a repository of information, but has become an important element in the world of education. Chambliss & Calfee (1998) stated that textbooks serve as learning tools, providing students with the best facts and opening up opportunities for new experiences. However, the traditional view of textbooks is beginning to change due to 21st-century education, digital transformation, and the need for better learning materials that adapt to students' diverse needs and encourage critical thinking. The OECD (2023a) found problems with conventional printed or digital textbooks. These textbooks cannot adapt to students' learning needs, cannot collect data on student progress, cannot provide automatic assistance, and cannot be updated or modified without additional costs. These problems are even more apparent in language learning, due to the need for personalized feedback, appropriate training, and new materials tailored to skilled students.

The world of education has changed significantly due to technology. Area-Moreira et al. (2023) stated how digital materials have begun to replace textbooks. As a result, students can engage in more interesting activities. For example, students can create their own videos and multimedia materials, find and filter information on the internet, or work on projects in groups. There are many Open Educational Resources (OER) and Massive Open Online Courses (MOOCs) that represent a shift from traditional textbooks. The OECD (2023a) states that this is beneficial because it provides broader learning opportunities and allows teachers and students to choose materials that suit their individual circumstances. OER is ideal because, unlike static textbooks, it can be adapted to meet specific needs. These digital materials also help train students to be more skilled in the 21st century.

Bock (2014) believes that important skills such as self-learning, creativity, critical thinking, collaboration, and communication are more enjoyable when using interactive media compared to regular books. However, when educational resources become digital, problems arise. UNESCO (2021b) states that during COVID-19, there appears to be a significant imbalance in resources and facilities. The education system is too dependent on digital technology. AI is also rapidly advancing in education, and it is important to remember to use access that is appropriate, equal, easy, and suitable for learning.

Regenerative Approaches to Educational Resources

The limitations of traditional textbooks and purely technology-based solutions have led to the emergence of a regenerative approach to educational resources. The BIMA (Bridging Intelligence, Mindfulness, and Awareness) framework, developed by Prof. Dr. Rudolf Wirawan from the University of Adelaide, offers an interesting alternative vision. Wirawan (2025) emphasizes that, in this framework, knowledge is not static but a dynamic, living flow. This conceptualization fundamentally challenges the traditional textbook model, which views knowledge as fixed content that must be transmitted.

BIMA is a framework that emphasizes community, local knowledge, and values in development

(Wirawan, 2025a). This approach changes the way people create and use educational resources, including ELT materials. BIMA invites a shift in perspective, where AI and digital technology are not seen only as means to make everything fast and automatic without human involvement, but rather as ‘Circular Regenerative Intelligence’. This means that AI is used to listen, adapt, and remain accountable to communities, especially marginalized ones (Wirawan, 2025b). Quan (2024) stated that although AI-based tools show tremendous potential for supporting linguistic development and self-directed learning among learners of English as a foreign language through interactive feedback and flexible engagement, the technology’s capacity to foster true autonomy depends heavily on pedagogical designs that position AI as a mediating scaffold rather than a substitute for teacher guidance, critical reflection, and culturally appropriate learning experiences culturally attuned learning experiences that value multilingual repertoires, emotional literacy, and collective meaning-making within the classroom.

The regenerative approach is exactly what UNESCO (2021b) is envisioned, namely, teaching as a highly ethical human being and developing critical thinking when faced with issues such as digital disruption, social inequality, and environmental problems. In English Language Teaching (ELT), this means that the learning process should not rely too heavily on textbooks as a source of knowledge. Instead, textbooks are tools to help students and teachers connect with people, cultures, and global issues. Educational resources in this context are a means for students to develop language skills, as well as intercultural competence and a deeper awareness, and to become responsible global citizens.

Research Questions

This study aims to answer the following research questions:

1. To what extent do the 10th-grade English textbooks created as national textbooks under the Merdeka Curriculum integrate emotional and aesthetic qualities that truly support the development of critical reading?
2. How do the assessment practices in this textbook reflect or deviate from the stated objectives of the Merdeka Curriculum to develop higher-order thinking and freedom of learning?

Methods

Pedagogical Setting & Participants

This study examines the discussion of curriculum transformation in Indonesian education, particularly the Merdeka Curriculum. It focuses on how English is taught in secondary schools, looking at whether the reading materials used are compatible with contemporary frameworks that emphasize emotion and aesthetics, as Ministry of Basic and Secondary Education of the Republic Indonesia (2025) learning activities connected to emotions make it easier for students to understand, remember, and apply knowledge. The aim of this research is to help Indonesia improve student performance internationally and ensure they have the skills needed for the

future. To conduct this research, reading materials were analyzed using methods that emphasize emotion and aesthetics in a 10th-grade English textbook. This helped to evaluate whether the curriculum supports comprehensive reading development, encompassing the emotional and aesthetic dimension of literacy.

This study used purposive sampling to select material from the official English textbook of the Merdeka Curriculum for tenth grade, a publication of the Ministry of Education and Culture. Purposive sampling is a technique for selecting non-random samples to obtain the most useful and relevant information, enabling the research to run more effectively (Campbell et al., 2020). This method was used to ensure the selected material represented government-approved educational content, thereby impacting teaching methods in schools across the country. The example chosen is Cristiano Ronaldo (pages 11-12), which shows how descriptive texts are usually written and helps students understand people's life stories and related information.

Design of the Study

This study employs a qualitative research design with content analysis as the primary methodological approach. A qualitative approach is appropriate because the focus of the research lies in exploring meanings and interpretations, rather than generating statistical generalizations (Creswell & Creswell, 2018). Unlike traditional linguistic analysis, which focuses on vocabulary, grammar, and textual cohesion, this research examines the emotional and aesthetic dimensions of reading passages in the Grade 10 Merdeka Curriculum English textbook. It allows the researcher to interpret how texts are constructed to evoke and sustain emotions while integrating principles of aesthetic perception into the analysis. The emphasis lies in understanding how emotional tone develops across narrative stages and how aesthetic principles influence the readers' engagement with the text.

Data collection was primarily conducted through document analysis and literature review. Document analysis involved a close and systematic reading of textbook passages to identify indicators of emotional resonance and aesthetic engagement. This method allowed the identification of both explicit and implicit textual cues, which were subsequently classified for deeper examination (Bowen, 2009). The literature review, meanwhile, was not only an instrument for data gathering but also served as a theoretical foundation. By engaging with scholarly research addressing literacy education, affective engagement, and aesthetic dimensions of reading, the study established a robust conceptual framework to guide analysis and interpretation.

Data collection & analysis

AI, specifically Qwen, was integrated into the analysis in a supportive capacity. Before undertaking the actual textbook analysis, the AI was introduced to the Reading for Emotion and Aesthetics Framework through prompt engineering. Prompt engineering is a way of shaping text so that generative AI models can process and understand it accurately (Parmar & Patel, 2024). This stage involved teaching the model key concepts, providing sample texts classified according to the framework, and assigning practice exercises for interpretive alignment. As

Esfandiari & Arefian (2025) stated, when used intentionally in collaborative and culturally sensitive reflective practices, artificial intelligence (AI) tools can serve as supportive resources that help language educators understand, manage, and transform emotional experiences, thereby not only fostering professional development but also strengthening relationships, emotional literacy, and pedagogical imagination, which are the essence of regenerative, human-centered language education. Once the model demonstrated appropriate categorization skills, it was applied to actual Grade 10 passages to generate preliminary analyses. However, the AI's findings did not replace the human interpretive process; rather, they were critically cross-examined against the researcher's own coding and the theoretical sources. In this way, the study adopted a human-centered approach, treating AI as an analytic aid that enhanced efficiency and offered fresh perspectives, while safeguarding the interpretive depth and reflexivity that qualitative research demands.

Once coding was completed, themes were identified across the dataset to reveal patterns of emotional and aesthetic engagement within the textbook. AI-generated coding was then compared with the researcher's own thematic findings to ensure both reliability and validity, thus creating a process of methodological triangulation. The overall research procedure followed a structured flow: first, the reading passages were compiled from the textbook; second, both the researcher and AI familiarized themselves with the Reading for Emotion and Aesthetics Framework; third, the data underwent systematic coding through document analysis, supported by parallel AI-generated interpretations; and finally, overarching themes were synthesized to address the research questions. In this process, AI-assisted insights were considered valuable but subordinate to human interpretation, ensuring that the findings combined computational rigor with nuanced, reflexive engagement.

Results/Findings and discussion

To evaluate how well narrative texts in the Merdeka Curriculum support emotional engagement and aesthetic depth, an AI model trained on Ania Lian's Reading for Emotion and Aesthetics framework was applied to the biographical text "Cristiano Ronaldo" (Grade 10 English textbook, pp. 11–12). The analysis focused on identifying the presence, strength, and coherence of the five emotional stages: Focus, Disturbance, Dialog, Development, and Resolution & Moral.

Table 2.

The Emotional Stages of the biographical text "Cristiano Ronaldo" (Grade 10 English textbook, pp. 11–12).

No.	Emotional Stages	Excerpt	Interpretation	Aesthetic Principles
1.	Focus	"Cristiano Ronaldo has very strong determination...."	The text establishes a clear emotional tone centered on admiration and excellence. The opening lines "Cristiano Ronaldo has very	Isolation: the whole biography block is set in a distinct green panel on the page (visual isolation → signals importance). Textual

			strong determination” immediately set up a focus on extraordinary human achievement and dedication. This creates an emotional foundation of respect and aspiration. Note: No personal emotional hook for the reader (e.g., “Imagine training alone at dawn...”). It’s factual, not felt. Improvement Suggestion: Add a sensory or emotional opener e.g., “At 8 years old, Cristiano would wake before sunrise, his small feet pounding the dusty pitch while others still dreamed.”	isolation: the opening sentences (“Cristiano Ronaldo has very strong determination. He used to train very hard since his childhood.”) stand alone as concentrated claims. Peak shift: strong evaluative words (“very strong determination,” “train very hard”) make the protagonist’s quality exaggeratedly salient. Generic viewpoint: the opening voice is an external, spectator-like narrator (familiar bystander perspective) inviting admiration. Perceptual problem-solving, contrast, metaphor are not yet strongly used in the first lines.
2.	Disturbance	-	Unlike traditional narratives, this informational text doesn’t present a conventional disturbance. However, the implicit challenge is introduced through mentions of physical demands (“a football match requires a player to run at least 10 kilometers”) and the exceptional training regimen. These represent the obstacles Ronaldo had to overcome. Improvement Suggestion: Introduce a moment of failure or emotional low e.g., “In his first professional match, he missed a penalty... and cried alone in the locker room.” This creates tension and humanizes him.	Contrast: a small contrast appears when opponents are mentioned (“opponents cannot figure out how to stop Ronaldo”), but it’s inverted — it emphasizes his superiority rather than threat. True Isolation of a problem, Peak shift to dramatize threat, Perceptual problem-solving (explaining a real dilemma), Symmetry/imbalance to create tension, and Metaphor to dramatize a struggle are mostly absent.
3.	Dialogue	-	No direct or indirect dialogue. No inner thoughts, quotes, reflections, or character voices.	Perceptual problem-solving: the text explains why opponents fail — it asks readers to reason (“Normal players will use

			Reader doesn't hear Ronaldo's voice only the narrator's neutral reporting. Improvement Suggestion: Insert a quote or imagined thought e.g., "I told myself, 'If I can't win today, I'll train harder tomorrow.'" or "'I'm not just playing for me,' he once said. 'I'm playing for my family, my island, my dreams.'"	their single leg... but Ronaldo can easily use both of his legs"). Metaphor is limited here; Peak shift is less rhetorical and more explanatory.
4.	Development	"G-force is five times higher than that of a cheetah...."	The developmental stage is represented by the progression of Ronaldo's capabilities, from training habits to skill development to extraordinary physical achievements. This builds emotional investment through accumulating evidence of exceptionalism. Improvement Suggestion: Show how each achievement changed him emotionally e.g., "Winning his first Ballon d'Or didn't just make him famous it made him feel like he'd finally proven himself to the doubters who said he was too small, too poor, too weak."	Perceptual grouping: achievements are listed and grouped (speeds, jump heights, trophies) to form a cumulative case. Peak shift: repeated extreme metrics and nicknames ("one of the fastest," "rocket man," sprint and free-kick speeds) amplify exceptionalism. Isolation: numeric facts and short sentences are set off and easy to spot (e.g., "he can run with a speed of 33.6 kilometers per hour"). Perceptual problem-solving: provocative claims (G-force vs cheetah; free-kick speed) invite questions about meaning and plausibility. Symmetry & balance: page layout balances the dense text block and the photo — visually supporting a stable escalation.
5.	Resolution	"...won many trophies and broken records including the prestigious FIFA Ballon d'Or award five times."	The resolution appears in the final paragraph where his achievements are quantified. This provides emotional satisfaction by showing how the earlier discipline led to concrete success. Improvement Suggestion: End with a reflective line e.g., "Today, when he looks at his trophies, he doesn't see wealth, he sees the	Isolation: final lines isolate achievements (trophies, records, net worth) as a closing proof of success. Peak shift & Metaphor: the nickname and records serve as an exaggerated "seal" of success, the metaphors and superlatives act as closure tokens. Perceptual problem-solving and

			hours, the sweat, the tears... and the little boy who never gave up.”	genuine Contrast used to show consequences (e.g., cost, struggle, trade-offs) are weak; Resolution is evidential rather than dramatic.
6.	Moral	Implicit	The implicit moral of the text is that extraordinary dedication and physical discipline lead to exceptional achievement. The progression from childhood training to world records and financial success (\$500 million net worth) delivers an unstated but clear message about the relationship between dedication and success. Improvement Suggestion: Tie moral to emotion e.g., “Success isn’t measured in trophies or money it’s measured in the courage to keep going when no one believes in you.”	Metaphor: figurative language (“rocket man,” cheetah comparison) condenses the moral about extraordinary performance into memorable images. Peak shift & Contrast: superlative claims and contrasts (normal vs exceptional) point to an implicit moral: exceptional results follow exceptional effort/ability.

PISA classifies reading tasks by three main cognitive processes, namely retrieving information, interpreting (making inferences), and reflecting or evaluating (assessing credibility, purpose, or broader implications). Tasks vary in complexity and context, including multimodal tasks that include texts with images. High alignment requires a spread across the three processes, as well as items that demand higher-order reflection, evaluation, and integration.

For the first question, “*What is the main idea of the text?*” It is classified as a retrieving and summarizing process that needs low to medium complexity. Good baseline item for core comprehension. The second question, “*What makes Cristiano Ronaldo different from other players in scoring a goal?*” based on PISA mapping, is classified as an interpreting or inference process, identified as of medium complexity, which requires integrating sentences about ambidexterity, head use, etc. It is good for inferential comprehension. Next, the third question, “*How did he get known as a rocket man?*” In PISA, this question is classified as retrieving explicit information, a low-level process. The nickname is tied directly to claims about speed, so this is straightforward retrieval.

For the fourth question, “*How does the text organize its idea about Ronaldo?*” It is shown that the question reflects the text’s structure or form. In PISA, this type of question is included in interpreting and metacognitive processes. It is of medium complexity for students. The next question, “*‘Ronaldo’s G-force is five times higher than that of a cheetah.’ What can you infer from the sentence above?*” This type of question is identified as an interpreting or inference

process and may reflect plausibility, which is classified as medium to high depending on the expected answer. It also contains ambiguity, depending on whether students are expected to explain the physical meaning, infer the consequences (e.g., high impact on landing), or challenge the comparison. Without a scoring rubric, this item could produce variable responses. And the last question, *“What is the function of the picture in relation to the verbal text?”* This type of question is identified as interpreting multimodal text, aligns well with PISA category multimodal comprehension, and is of medium complexity.

Looking at Table 2 and the PISA mapping results, there is a significant difference between the current reading framework, which emphasizes emotions and aesthetics, and the old way, which focuses solely on information, as in the text about Ronaldo. This difference points to a bigger problem in creating teaching materials:

- The text is more concerned with conveying facts about Ronaldo than with engaging readers. In fact, this approach, which focuses solely on information, deprives students of the opportunity to develop important reading skills, namely emotional intelligence and the ability to appreciate aesthetics. In fact, PISA and other frameworks have increasingly recognized the importance of this.
- Because there is no disturbance, challenge, or deep emotion, this text is less interesting to readers. According to cognitive science, stories that touch emotions are effective for learning and remembering. This text mentions Ronaldo’s training but never tells the story of his struggles, his doubts, or his development as a person. If it did, readers would definitely be more interested.
- Ronaldo is a great athlete with an extraordinary physique. It should be possible to create a beautiful text with lively language, dynamic sentences, and good metaphors. However, this text is flat, like a factual report. If this text used the aesthetics principles, it would be easier to remember and more memorable.

In essence, the results of this study are very important for creating and evaluating lesson texts:

- Most exam questions only test basic comprehension, even though modern reading frameworks such as PISA also emphasize emotional and aesthetic aspects. This can lead teachers and students to think that feelings and artistic appreciation are not very important in reading.
- Texts that focus too much on statistical data without any emotional touch can make students who prefer learning through emotion less interested. In fact, research shows that emotions and aesthetics are not just extras, but an important part of how many students digest and remember information.
- Texts and examination questions rarely give readers the opportunity to assess the quality of content. In fact, digital literacy frameworks and PISA assessments increasingly emphasize this skill.

Based on the results of this analysis, here are some improvements that can make the text more

readable:

- Add stories about Ronaldo's personal problems, when he had doubts, or how he developed as a person. This can make the story more emotional. If there are quotes or his own words, it would be even better.
- Use more descriptive language and use clearer metaphors to make the text more interesting. For example, the rocket man metaphor could be developed further, and the description of Ronaldo's movements could be made more vivid.
- Ask questions that make readers think about Ronaldo's feelings (*How did Ronaldo feel at that time?*), or about the beauty of his writing (*Do you think the comparison with a cheetah helps you understand better?*), or even think critically (*Is Ronaldo really that great?*).
- Rewrite the text to make it clearer by following the six emotional stages. In particular, the parts where Cristiano Ronaldo is down and learns a moral lesson should be made stronger to make his emotional journey more palpable.

Conclusion

This study shows that interesting texts in the Merdeka Curriculum, such as Cristiano Ronaldo's biography, often fail to encourage critical reading because of their low emotional resonance and insufficient aesthetic depth. Analysis using the Reading for Emotion and Aesthetics framework and neuro-aesthetic principles reveals a critical misalignment: the material fails to activate the emotional and aesthetic dimensions essential for deep engagement. Emotional design elements are severely lacking, particularly in the disruption and dialogue phases, while post-reading questions are still dominated by factual recall rather than critical reflection or evaluation, leaving students to extract information rather than construct meaning, which contradicts PISA's emphasis on interpretive and evaluative literacy.

To bridge this gap, textbook designers need to insert a deliberate emotional arc from anticipation to disruption and resolution, and use neuro-aesthetic cues such as contrast, sensory-rich language, and rhythmic patterns at key moments to capture attention and strengthen memory encoding. Question design needs to shift from simply gathering information to dialogic questions that invite emotional responses and critical analysis, such as asking which moments disturbed the reader most and what they mean in relation to their personal values. Meanwhile, teacher training should prepare educators to identify emotional moments in texts and facilitate affective dialogue, as well as adapt existing materials by adding reflection breaks and opportunities to take perspective when official resources are not sufficiently in-depth.

Future research should empirically collect reader response data through hard thinking protocols and reflective journals to verify whether the identified emotional-aesthetic features actually trigger engagement, as well as conduct a comparative corpus analysis across grades seven through twelve to map systemic patterns and implement classroom interventions that test

modified texts against the original texts to measure the impact on comprehension and critical thinking. Finally, efforts to deliberately insert emotional flow and aesthetic appeal into teaching materials and prepare teachers to facilitate meaning-making beyond information retrieval will encourage sustained engagement and long-term retention, as well as critical thinking, which is the basis for advanced reading literacy. This cognitive-affective foundation positions students not only to deconstruct texts but also to dwell within them, question them, and transform their understanding through them, which is the ability that current literacy assessments seek to measure.

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Appendix

Cristiano Ronaldo Text

B Let's Read

Read the following text and answer the questions based on the text.

Cristiano Ronaldo

Cristiano Ronaldo has very strong determination. He used to train very hard since his childhood. He knew that a footballer requires good stamina because a football match requires a player to run at least 10 kilometers in a single match. Sometimes, he even trained himself continuously from morning until evening. He also challenged himself by playing along with older players.

He becomes so skillful and confident that his opponents cannot figure out how to stop Ronaldo from making a goal. Normal football players will use their single leg of their dominant side body, i.e. players of right-handed or left-handed use their respective legs to score goals but Ronaldo can easily use both of his legs efficiently to make goals. In addition to that, he can use his head to score goals as well.

He is also one of the fastest football players in football history. Ronaldo can run very fast, he can run with a speed of 33.6 kilometers per hour. That is why he is also known as a rocket man. This helps Ronaldo to do his famous free-kick. Ronaldo's free-kick speed is approximately 130 kilometers per hour.

While jumping, Ronaldo's G-force is five times higher than that of a cheetah. He can



Picture 1.7 CR 7 is showing his skill.
Source: <https://www.gettyimages.com/detail/photo/cristiano-ronaldo-royal-madrid-football-club-gettyimages-com>

Chapter 1 Great Athletes

jump up to 78 cm in the air; this jumping height is much more compared to any basketball player. All of these have helped him achieve his success. In his young age, he has won many trophies and broken records including winning the prestigious FIFA Ballon d'Or award five times and created a world record by scoring the most goals in international football in September 2021. Currently his net worth is around \$500 million and **this** makes him one of the richest athletes.

Adapted from: <https://pearlsonathletics4life.com/cristiano-ronaldo-biography/>

1. What is the main idea of the text?
2. What makes Cristiano Ronaldo different from other players in scoring a goal?
3. How did he get known as a rocket man?
4. How does the text organized its idea about Ronaldo?
5. "Ronaldo's G-force is five times higher than that of a cheetah." What can you infer from the sentence above?
6. What is the function of the picture in relation to the verbal text?