

Scaffolding Higher-Order Thinking: Analyzing Instructional Design for HOTS in EFL Textbooks

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ABSTRACT

In-depth analysis of the Grade X English textbook Bahasa Inggris: Work in Progress, developed by the Indonesian Ministry of Education for the Kurikulum Merdeka, is provided in this article. Assessing how well the textbook's writing assignments and teaching methods promote analytical and other higher-order thinking skills (HOTS) is the main goal. Employing a mixed-methods approach, the study quantitatively analyzes the cognitive demand of 126 writing-related tasks using the revised Bloom's Taxonomy. It qualitatively examines the pedagogical scaffolding and genre progression across the textbook's six chapters. The findings reveal a deliberate macro-scaffolding structure, with Semester 1 focusing on foundational skills through concrete genres (descriptive, recount, procedural) and Semester 2 advancing to abstract thinking through complex genres (expository, narrative). While the textbook successfully aligns with the principles of Kurikulum Merdeka by emphasizing project-based learning and HOTS in summative assessments, a notable cognitive leap exists between preparatory activities and final projects within chapters. The conclusion affirms the textbook's pedagogical value in progressively developing students' cognitive abilities. However, it offers recommendations for educators and curriculum developers to strengthen further the instructional bridges that support the development of independent, critical thinkers.

Keywords: Higher-Order Thinking Skills (HOTS), Textbook Analysis, Writing Instruction, Kurikulum Merdeka, Bloom's Taxonomy.

INTRODUCTION

The relationship between writing and thinking is not merely sequential but deeply symbiotic; writing is a powerful and dynamic process for generating, clarifying, and refining thoughts. The act of composing compels learners to structure arguments logically and engage in the complex cognitive processes that define higher-order thinking (Quitadamo & Kurtz, 2007). A global paradigm shift in education has been encouraged by this knowledge, moving away from curricula that emphasise memorisation and towards frameworks that emphasise the development of Higher-Order Thinking Skills (HOTS). In contemporary education, a critical distinction is made between Lower-Order Thinking Skills (LOTS) and HOTS, a hierarchy most famously articulated in Bloom's Taxonomy and its subsequent revision (Anderson & Krathwohl, 2001). This framework posits that foundational cognitive skills like remembering, understanding, and applying must be mastered to enable more advanced skills such as analyzing, evaluating, and creating. Educational systems worldwide, including through policy initiatives like the Common Core State Standards in the United States, increasingly emphasize the need to move students beyond being passive recipients of information toward becoming evaluative and creative producers of ideas (Brookhart, 2010).

This analytical imperative is central to Indonesia's recent educational reform, the *Kurikulum Merdeka*. This curriculum framework is designed to promote student-centered learning and the holistic development of student potential, encapsulated in the *Profil Pelajar Pancasila* (Pancasila Student Profile) (Anggraena et al., 2022). A key objective of this curriculum is to foster HOTS, equipping students with the critical thinking and problem-solving abilities necessary to navigate real-world complexities (Kamil et al., 2024). This focus is a direct and necessary response to persistent challenges in Indonesian education. The preceding 2013

Curriculum, despite its own ambitions to promote HOTS, struggled with implementation, often due to textbooks and classroom practices being dominated by LOTS-based tasks (Maryamah et al., 2024). A considerable imbalance was discovered by several analyses of textbooks created for the 2013 Curriculum; for example, some studies discovered that less than 20% of the tasks were at the HOTS level, with over 80% of the tasks consisting of Lower-Order Thinking Skills (LOTS) questions. This systemic issue was compounded by teachers facing significant challenges in understanding and implementing HOTS, including difficulties in designing appropriate assignments and assessments (Ginting & Kuswandono, 2020). Consequently, despite official policy, classroom pedagogy often remained teacher-centered and reliant on memorization, failing to cultivate the intended analytical competencies (Suhardin et al., 2019).

As an official resource developed by the Indonesian Ministry of Education, Culture, Research, and Technology, the textbook *Bahasa Inggris: Work in Progress untuk SMA/SMK/MA Kelas X* is a primary instrument for implementing the principles of *Kurikulum Merdeka* in the English as a Foreign Language (EFL) classroom (Hermawan et al., 2022). The textbook's preface states explicitly that its objective is to equip students with "multimodal literacy," which will enable them to "learn, use and produce multimodal texts in both written and spoken form" in order to satisfy the demands of the modern world. This positions the textbook not merely as a new collection of materials but as a strategic pedagogical intervention designed to rectify the specific, well-documented shortcomings of its predecessor. Given the crucial role of educational materials in shaping classroom practice, a thorough evaluation of this new textbook is essential. Therefore, a comprehensive analysis of the textbook *Bahasa Inggris: Work in Progress* is the aim of this article. The purpose of the inquiry is to assess how well its integrated writing assignments and related teaching methods support the *Kurikulum Merdeka*'s objective of developing higher-order thinking abilities, including analysis. This article is organized into several sections, beginning with the methodology, followed by a detailed discussion of the findings, and

concluding with recommendations for educators and curriculum developers.

RESULTS AND DISCUSSION

This study undertakes a systematic content analysis of the designated EFL textbook to evaluate its pedagogical approach to developing thinking skills through writing. The entire Grade X EFL textbook, *Bahasa Inggris: Work in Progress*, serves as the main material for this analysis. The 126 writing and writing-related tasks that are spread throughout the six chapters of the textbook are the main focus. A mixed-methods approach was employed. The updated Bloom's Taxonomy was used to quantitatively analyse the cognitive demand of each task. Qualitatively, the design of the writing tasks and their surrounding instructional strategies were analyzed, informed by principles of scaffolding (Vygotsky, 1978) and genre progression (Hyland, 2007). The use of the revised Bloom's Taxonomy as the analytical framework is supported by its widespread application as an effective tool for structuring course objectives, guiding instruction, and creating appropriate assessments in diverse educational contexts (Rahmani & Ghounane, 2023).

The Architectural Blueprint: Macro-Scaffolding through Genre Progression.

The analysis of *Bahasa Inggris: Work in Progress* reveals a highly structured pedagogical design aimed at progressively developing students' thinking skills, evident in the clear distinction between the two semesters. The textbook exhibits a deliberate macro-scaffolding structure spanning the academic year, a design that can be effectively understood through the lens of genre-based pedagogy. This approach makes the purpose, structure, and linguistic features of different text types explicit, providing essential scaffolding that has been shown to improve EFL learners' writing proficiency by giving them a clear framework for constructing meaning. The systematic framework provided by a genre-based approach can alleviate student anxiety and make writing tasks less burdensome, particularly for those with lower proficiency.

As outlined in the "Scope and Sequence" chart, Semester 1 is themed "Sports," a concrete and accessible topic that lends itself to foundational genres like description, recount, and procedure. Semester 2 shifts to "Art," a more abstract domain that facilitates complex genres like expository and narrative writing, demanding more sophisticated analytical and creative thought. This progression from concrete to abstract is not arbitrary; it represents a carefully constructed cognitive ramp that mirrors the hierarchical nature of Bloom's Taxonomy (Bloom, 1956). The initial genres describing an athlete (Chapter 1) or recounting a sports event (Chapter 2) are grounded in concrete observation and personal experience, aligning with the cognitive skills of Remembering, Understanding, and Applying. In contrast, the later genres analysing opposing arguments about graffiti (Chapter 5) or creatively reimagining a traditional fairy tale (Chapter 6) require students to deconstruct arguments, weigh evidence, and synthesize new creations, which are explicit acts of Analysis, Evaluation, and Creation. The textbook thus uses English genres as a vehicle for cognitive maturation, teaching not just how to write a description, but also using the descriptive genre to develop the cognitive skill of organizing observations. This pedagogical strategy aligns with research showing that a genre-based approach effectively develops students' knowledge of argumentation and improves their overall writing performance.

Table 1. Distribution of Writing Tasks by Bloom's Taxonomy Level Across Chapters

Chapter	Genre	Remember	Understand	Apply	Analyze	Evaluate	Create	Total Tasks
1: Great Athletes	Descriptive	4	2	4	1	2	3	16
2: Sports	Recount	3	2	2	2	3	3	15

Event s								
3: Sport s and Healt h	Proced ure	2	3	3	3	3	3	17
4: Healt hy Foods	Proced ure	1	2	3	3	2	3	14
Seme ster 1 Total		10	9	12	9	10	12	62
5: Graffit i	Exposi tory	2	2	1	5	2	4	16
6: Fract ured Storie s	Narrat ive	0	3	2	6	2	4	17
Seme ster 2 Total		2	5	3	11	4	8	33
Textb ook Total		12	14	15	20	14	20	95 *
<i>Note: The total task count of 95 reflects the core instructional tasks, excluding chapter review and reflection items.</i>								

As Table 1 illustrates, Semester 1 contains a balanced distribution across cognitive levels, while Semester 2 shows a marked shift toward the 'Analyze' level. This data provides clear quantitative evidence of a pedagogical design that moves learners from lower- to higher-order thinking. This finding is significant when contrasted with analyses of other textbooks

from the preceding 2013 curriculum, which found a substantial imbalance where LOTS tasks constituted over 85% of reading comprehension questions (Irawan & Diptoadi, 2022). A similar dominance of lower-order questions was found in other analyses of 2013 curriculum materials (Ekalia et al., 2022). Even under the current *Kurikulum Merdeka*, some analyses find that instructions remain heavily weighted towards lower-order thinking (Putri et al., 2021).

A quantitative breakdown of the 95 core instructional tasks in *Bahasa Inggris: Work in Progress* further underscores this pedagogical shift. The analysis reveals that 54 tasks, or approximately 56.8%, are designed to elicit HOTS (Analyze, Evaluate, Create), while 41 tasks, or 43.2%, target LOTS (Remember, Understand, Apply). The materials from the previous curriculum, where LOTS of questions frequently made up more than 80% of the content, are significantly different from this nearly balanced distribution with a small emphasis on higher-order skills. This deliberate recalibration reflects the *Kurikulum Merdeka*'s core objective to move beyond rote memorization and cultivate students who can critically engage with information, a skill set deemed essential for navigating the complexities of the 21st century.

The Cognitive Leap: Bridging Scaffolding and Independent Creation.

Within each chapter, the textbook employs a consistent structure that moves from guided, preparatory tasks to a complex, summative project. This often creates a "cognitive leap" between the highly scaffolded exercises and the final assessment. A clear example is found in Chapter 1, "Great Athletes." The preparatory Task 2E, "Use Your Words," asks students to complete sentences about their favorite athlete using a fill-in-the-blanks format, a task operating at the 'Remembering' and 'Understanding' levels. In stark contrast, the final "Assessment" project requires students to create a mind map, draw a portrait, and write a 100-word essay titled "What Makes Great Athletes?". This final project demands that students move far beyond information retrieval to engage in 'Analyzing' (brainstorming traits), 'Evaluating' (defining greatness), and 'Creating' (composing a cohesive, multimodal argument).

Table 2. Analysis of the Cognitive Leap in Chapter 1: From Scaffolding to Creation

Feature	Preparatory Task (Task 2E, p. 27)	Final Project (Assessment, p. 40-41)
Primary Cognitive Skill (Bloom's)	Remembering (finding facts), Understanding (placing facts in sentences)	Analyzing (brainstorming traits), Evaluating (selecting key traits), Creating (writing an essay, drawing a portrait)
Task Structure	Highly constrained; guided sentence completion (fill-in-the-blanks)	Open-ended; multi-stage project (mind map, portrait, essay, presentation)
Nature of Output	Disconnected factual statements	A cohesive, multimodal argument synthesizing abstract and concrete ideas
Student Agency	Low; students follow a rigid template	High; students generate ideas, structure their own text, and make creative choices

This leap, however, should not be interpreted as an instructional flaw but as an intentional design feature aligned with the *Kurikulum Merdeka's* philosophy of "Merdeka Belajar" (Independent Learning). The curriculum's emphasis on Project-Based Learning (PBL) necessitates a departure from a linear, step-by-step instructional model. PBL is fundamentally about student-led exploration, interpretation, and synthesis. The textbook provides the foundational tools (e.g., vocabulary, model texts) and the complex final goal (the project). The "cognitive leap" is the designated space where the core PBL process occurs, facilitated by the teacher rather than being exhaustively prescribed by the textbook. This design

compels a shift in classroom dynamics, positioning the teacher as a facilitator who guides students across this bridge using tools like the provided planning organizers and peer review checklists. The use of such scaffolding strategies has been shown to be beneficial for English learners' reading comprehension (Li et al., 2024).

Project-Based Learning as the Apex of HOTS Implementation

The textbook's summative assessments consistently serve as the culmination of its HOTS-focused pedagogy, fully embodying the principles of PBL. This approach is known to increase student motivation, enhance problem-solving skills, and improve collaboration (Chiang & Lee, 2016). The capstone project in Chapter 6, "Fractured Stories," provides a powerful example. The task involves students to "plan, write, illustrate and publish their own children's picture books" based on a fairy tale they picked out.

This project smoothly combines every possible area of higher-order thinking. Students must first compare the original "Little Red Riding Hood" with a fragmented version from the wolf's perspective to **analyze** the norms of the conventional fairy tale genre. Next, they must **evaluate** which story elements—characters, setting, plot, point of view—to alter in order to construct a new, meaningful narrative. Finally, they must **create** an entirely new, multimodal artifact that synthesizes their linguistic and artistic skills into an illustrated book. In this semester, writing evolves from a tool for recording information to a tool for generating and evaluating knowledge, embodying the concept of writing as a process of discovery. This use of varied instructional methods is a recommended practice in pedagogical literature (Wininger et al., 2019). By structuring the curriculum to move from concrete to abstract genres, it not only teaches writing conventions but also develops metacognitive awareness, cultivating a versatile approach to language and thought, a process shown to be effective by learning activities oriented toward Bloom's taxonomy (Sudirtha et al., 2022).

CONCLUSION

In conclusion, *Bahasa Inggris: Work in Progress* is a well-structured textbook that demonstrates an effective design for fostering analytical and higher-order thinking skills. Its primary strengths are its clear macro-scaffolding through logical genre progression and its engaging, project-based assessments that align with the core tenets of the *Kurikulum Merdeka*. The textbook successfully moves beyond simple language drills to engage students in meaningful, cognitively demanding tasks that cultivate critical and creative competencies. Moreover, the pedagogical principles of fostering HOTS through structured genre progression and project-based learning are fundamental to modern language education and transcend any specific curriculum. Given that curriculum frameworks in Indonesia evolve to meet changing educational needs, the insights from this analysis remain relevant for future textbook evaluation and instructional design, regardless of potential changes to the national curriculum framework.

The main area for improvement lies in providing more explicit instructional bridges to help students navigate the cognitive gap between preparatory tasks and final projects. This is crucial, as students often do not complete assigned readings or preparatory work unless they are explicitly integrated into class activities or assessments (Russell et al., 2023). However, the successful implementation of such a textbook is not without its challenges. Teachers often face difficulties related to their own knowledge of HOTS and the time required for preparation (Ginting & Kuswandono, 2020). Additionally, challenges can arise from students' skill levels and teachers' own perceptions of their students' abilities (Faradella et al., 2024).

Based on this analysis, the following recommendations are offered. For educators, it is recommended to explicitly connect preparatory tasks to summative projects through modeling and guided practice. Employing strategies like

"think-alouds" can make the cognitive processes required to bridge the gap visible and accessible to students. For curriculum developers, future editions of the textbook could benefit from incorporating more mid-level analytical tasks within chapters to create a smoother cognitive ramp for students. Furthermore, integrating more structured reflective writing prompts could enhance students' metacognitive awareness, helping them to better understand and articulate their own learning processes as they develop into independent, critical thinkers.

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