

Cognitive Levels and Material Quality of Reading Comprehension Questions in the Grade XI English for Change Textbook

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Abstract

This study aims to analyze the cognitive levels and material quality of reading comprehension questions in the English for Change Grade XI textbook. In response to concerns that English textbooks tend to emphasize lower-order thinking skills (LOTS), this study examines the extent to which the questions support students' cognitive development and reflect effective principles of language learning materials. A qualitative content analysis design was employed to analyze 30 reading comprehension questions from five chapters. Cognitive levels were classified using Bloom's Revised Taxonomy, while material quality was evaluated based on Tomlinson's principles of language learning materials development. The integration of these frameworks offers a multidimensional evaluation of reading comprehension questions, considering both cognitive demands and pedagogical quality. The findings show that most questions target Understanding (53.3%) and Remembering (33.3%), with minimal representation of higher-order thinking skills (HOTS). Cognitive Engagement was dominant (94%), whereas Communicative Purpose, Self-Investment, and Learner Relevance received limited attention. The study highlights reading comprehension questions as cognitive and pedagogical tools that support meaningful learning and higher-order thinking development in EFL contexts.

Keywords: Reading Comprehension Questions; Bloom's Revised Taxonomy; Tomlinson's Principles; English for Change textbook; EFL Textbook Analysis



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Introduction

Reading comprehension questions serve as a tool to evaluate students' understanding of the text, fostering the thinking process through analysis, interpretation, and reflection on the material. According to (Snow, 2002) Reading comprehension is a process of extracting and building meaning through interaction with written language involving the reader, the text, and the reading activity. This involves both text-based and knowledge-based processing, where readers integrate word recognition and background knowledge to develop a comprehensive understanding of the text (Harahap, 2019). Kintsch (1998) further explains that comprehension becomes more structured and organized when achieving a level of awareness through an associative bottom-up construction process with minimal control, followed by a process of fulfilling constraints through a spreading activation mechanism, resulting in cohesion and regularity. In this process, readers employ various skills, knowledge, and experiences to understand texts, both printed and electronic, based on their reading goals. The cognitive processes during reading are further explained by the Landscape Model proposed by Rapp & Broek (2005), who view comprehension as a dynamic process in which representations formed in memory during the early stages activate and influence subsequent processing, leading to an integrated understanding of the text.

One way to support this comprehension process in reading instruction is to use questions. Rahman et al. (2018) state that the use of questions in learning also fosters more active classroom interactions, encouraging students to discuss, offer opinions, and respond to others' ideas. This focuses not only on the ability to recite texts but also on interpreting the meaning of words, sentences, and the connections between ideas in the text. The questions need to be designed appropriately with reference to taxonomic classification, and can be

Cognitive Levels and Material Quality of Reading Comprehension Questions in the Grade XI English for Change Textbook

implemented in various forms of assessment, such as multiple-choice, fill-in-the-blank, and open-ended questions (Nakkam & Khamoja, 2020; Işır & Uyar, 2022). A question must be designed appropriately to measure various thinking processes. It is not only determined by their format or quantity, but also by the level of cognition being measured. Two frameworks commonly used are Bloom's Revised Taxonomy by Anderson & Krathwohl (2001) and the principles of learning material evaluation proposed by Tomlinson (2011).

A question must be designed appropriately to measure various thinking processes. It is not only determined by their format or quantity, but also by the level of cognition being measured. Two frameworks commonly used are Bloom's Revised Taxonomy by (Anderson & Krathwohl, 2001) and the principles of learning material evaluation proposed by (Tomlinson, 2011).

Bloom's Revised Taxonomy by Anderson & Krathwohl (2001) is a framework that classifies categories sequentially into levels. This taxonomy classifies learning objectives, which usually consist of verbs and nouns. Verbs represent the cognitive processes performed, while nouns refer to the knowledge that students are to acquire. It classifies learning objectives into six levels. These levels include Remembering, Understanding, and Applying, which are low-order thinking skills (LOTS). The other three levels are Analyzing, Evaluating, and Creating, which are high-order thinking skills (HOTS). LOTS emphasizes basic thinking skills. At this level, questions help students construct a foundation of knowledge, ensure accurate understanding, and reinforce memory of important information. In contrast, HOTS requires a more complex thinking process, in which students not merely accept information, but instead process, interpret, and relate it to a broader context. Previous studies demonstrate that reading comprehension questions in various English textbooks are still dominated by Lower Order Thinking Skills (LOTS), whereas the proportion of questions requiring Higher Order Thinking Skills (HOTS) is relatively limited (Zainil et al., 2021; Matthews, 2022; Azmi & Aisyah, 2023; Ekalia et al., 2022). Although cognitive levels provide an overview of the thinking processes expected of students, other aspects of learning should also be considered. Determining cognitive levels can not be separated from the quality of the material, as appropriate presentation is critical in facilitating students' achievement of the thinking processes and the expected cognitive demands.

Considering the importance of the cognitive level of questions in enhancing students' thinking skills, the quality of question design likewise needs to be reviewed from the perspective of learning material development. Tomlinson (2011) Principles express authenticity, provide comfort for learners, and enhance their engagement in the language learning process. He offers a comprehensive criterion for evaluating materials quality, highlighting that selecting suitable textbooks is crucial for aligning with curriculum objectives and learners' needs. Questions that meaningfully engage students can link the text's content to their knowledge or experience, encouraging active student participation. Based on Shanahan (2005), comprehension strategies are deliberate actions readers use to understand or remember information in a text, while teaching strategies are methods teachers use to explicitly teach thinking processes during reading. Within the framework of evidence-based literacy, teaching these strategies integrates cognitive theory with classroom teaching practices. Similarly, Pressley & Woloshyn (1995) highlight that explicit and continuous instruction in cognitive strategies can help students understand when and how to use reading strategies independently, thereby enhancing their comprehension and retention of information from texts. This is also evident in various reading-learning practices that focus on active student-text interaction. Active student interaction with texts through extensive reading, discussion, analysis, and writing in response to the reading material is an important instructional practice that supports the development of effective reading comprehension (Duke et al., 2021). At the same time, authenticity ensures the use of language relevant to the material. Cognitive challenges encourage students to think beyond literal understanding toward analysis and evaluation. Thus, the principles of material development proposed by Tomlinson can serve as an important form of Bloom's Revised Taxonomy maps cognitive levels, while principles of language learning materials focus on the pedagogical dimensions that support learning. Together, these perspectives direct attention to the role of textbooks in English as a Foreign Language (EFL) education. EFL textbooks are not merely instructional resources but also ideological systems that communicate societal values and beliefs through language learning activities and engagement with contemporary social, cultural, and environmental issues (Mahbub et al., 2024; Javahery et al., 2025). However, the educational impact of these issues depends not only on the reading texts themselves but also on the comprehension questions that guide students' engagement with those texts. Reading questions determine whether learners simply recall information or engage in deeper processes of interpretation, evaluation, reflection, and critical analysis (Anderson & Krathwohl, 2001). Consequently, the quality of reading comprehension questions is essential because questions function as pedagogical tools that shape how learners construct meaning from texts and develop higher-order thinking skills.

Cognitive Levels and Material Quality of Reading Comprehension Questions in the Grade XI English for Change Textbook

From a materials-development perspective, effective questions should do more than assess comprehension; they should promote meaningful engagement, encourage learners to connect texts with their experiences, and support active participation in learning (Tomlinson, 2011). In this sense, question quality involves both cognitive demand and pedagogical value. Therefore, textbooks serve as a concrete representation of curriculum goals, and the questions embedded within them operationalize those goals in classroom practice. As (Fithriani, 2022) argues that value-rich learning materials help learners develop appropriate ways of thinking, acting, and understanding the world. Consequently, reading comprehension questions should not only assess textual understanding but also create opportunities for learners to engage critically with the social, cultural, and environmental issues represented in the texts. The textbook series as a whole reflects the intended English curriculum and should align with curriculum goals that promote diversity, cultural awareness, and effective communication rather than solely privileging native-speaker norms (Soto & Cevallos, 2021; Vuong et al., 2025; Khalid & Ghanian, 2019).

The Merdeka Curriculum in the Indonesian education system divides learning levels into six developmental phases: Phase A (grades 1-2), Phase B (grades 3-4), Phase C (grades 5-6), Phase D (grades 7-9), Phase E (grade 10), and Phase F (grades 11-12). The implementation of the curriculum primarily uses textbooks as the main source of learning to support the achievement of curriculum competencies. The English for Change textbook Grade XI in Phase F has learning outcomes (CP) where students independently read and respond to various types of texts, find, synthesize, and evaluate specific and key details from various genres of texts, demonstrate understanding of main ideas, issues, or plot developments, identify the author's purpose, and make inferences to understand implicit information in the text. This is in line with the three principles of the Merdeka Curriculum design, namely (1) ensuring and supporting the development of competencies and character, (2) flexibility, and (3) focusing on essential content (Wahyudin et al., 2024). Furthermore, Yani (2025) points out that the English for Change textbook Grade XI focuses more on the suitability of the reading text level with the CEFR B1 level, without specifically assessing the cognitive level of the questions included. This means that the study of reading comprehension questions in the English for Change textbook still has limitations in providing a comprehensive view of the types and quality of questions in the learning process.

To resolve the limitations of previous research that tended to focus on the cognitive level of questions or the quality of the material in separate ways, this study analyzes reading comprehension questions in the English for Change Grade XI textbook through the integration of Bloom's Revised Taxonomy and Tomlinson's principles of language learning material development. This approach enables an analysis that not only identifies the distribution of lower-order thinking skills (LOTS) and higher-order thinking skills (HOTS), but also evaluates how these questions support meaningful reading activities and students' cognitive development within Merdeka Curriculum Phase F.

This study was motivated by the tendency of high school English textbooks to emphasize low-level thinking skills. It remains unclear to what extent the reading comprehension questions in the English for Change Grade XI textbook promote higher-order thinking skills. Therefore, the research questions are (1) "To what extent do the Reading Comprehension Questions in the English for Change Grade XI textbook promote higher-order thinking skills?" How do the Reading Comprehension Questions in the English for Change Grade XI textbook provide cognitively engaging and pedagogically meaningful learning opportunities?. By examining both the cognitive demands and pedagogical characteristics of the questions, this study extends current scholarship on textbook evaluation in EFL contexts.

Method

This study employs deductive content analysis to examine the cognitive levels and quality of reading comprehension questions. An analysis systematically interpreted written data through a coding process based on predetermined categories (Mayring, 2000; Assaroudi et al., 2018). This approach was chosen as the analysis categories were established based on Bloom's Revised Taxonomy and Tomlinson's principles of learning material design. The data source is the English for Change Grade XI textbook published by the Ministry of Education, Culture, Research, and Technology in 2022. The unit of analysis for this study consists of 30 reading comprehension questions found in the five chapters of the textbook.

The researchers acted as the primary instrument in the process of data collection, coding, classification, and interpretation. To analyze the data, researchers used classification guidelines based on Bloom's Revised Taxonomy by Anderson and Krathwohl (2001) to identify the cognitive levels of the questions: C1 (remembering), C2 (understanding), C3 (applying), C4 (analyzing), C5 (evaluating), and C6 (creating).

Cognitive Levels and Material Quality of Reading Comprehension Questions in the Grade XI English for Change Textbook

Furthermore, this study utilized a rubric-based evaluation grid adapted from Tomlinson's (2011) principles of learning material design. From these principles, those with similar pedagogical focuses were grouped into four main indicators to better suit the context of reading comprehension question analysis. The Cognitive Engagement indicator covers principles regarding the impact of the material, the development of learners' self-confidence, attention to linguistic features, and learners' intellectual, aesthetic, and emotional engagement. The Learner Relevance indicator includes principles concerning learners' comfort, the relevance and usefulness of the material, and attention to differences in students' learning styles and affective needs. Communicative Purpose indicators involve the principles of authentic language use, the use of the target language to achieve communicative purposes, and the delivery of communicative feedback. Meanwhile, Self-Investment indicators refer to the principles of encouraging independence, decision-making, and students' active engagement in the learning process. Several other principles, such as learners' readiness to master the material based on linguistic, developmental, and psychological aspects, as well as the principle regarding the delayed positive effects of teaching, were not analyzed directly due to their focus on the implementation of learning and long-term learning development processes, therefore falling outside the scope of the reading comprehension question analysis.

The data analysis was guided by Bloom's Revised Taxonomy and Tomlinson's principles of learning material design. The analysis process started with identifying and transcribing 30 reading comprehension questions from five chapters in the English for Change Grade XI textbook. Subsequently, each question was given an initial coding based on the cognitive levels in Bloom's Revised Taxonomy and indicators of material quality based on Tomlinson's principles. Following the initial coding process, the classification results were cross-checked against the predetermined indicators to ensure the appropriateness of the categories. To enhance data validity, the coding results were also reviewed through expert judgement by two assessors. Discrepancies in the coding results were discussed until a final classification agreement was reached. Subsequently, the data were tabulated and their frequencies calculated to identify the distribution of cognitive levels and the quality of the questions. The results were interpreted and evaluated in relation to the learning objectives of the Merdeka Curriculum.

Table 1. Operational Definitions and Coding Criteria for Material Quality Indicators Adapted from Tomlinson's (2011) Principles of Language Learning Materials Development

Indicator	Tomlinson's Principles (2011)	Operational Definition	Coding Criteria	Example Question Type
Cognitive Engagement	Materials should achieve impact, stimulate intellectual involvement, promote confidence, and engage learners cognitively and emotionally.	Questions that require learners to actively process, interpret, infer, analyze, evaluate, or reflect on textual information beyond simple recall.	Questions requiring reasoning, interpretation, inference, explanation, comparison, justification, or critical thinking.	Why do you need to enter the details of the recipient?
Learner Relevance	Materials should be relevant and useful to learners and consider their needs, interests, and experiences.	Questions that encourage learners to connect the text with their personal experiences, prior knowledge, interests, or real-world contexts.	Questions inviting personal reflection, real-life application, or connections to learners' experiences.	Not available in the text
Communicative Purpose	Materials should expose learners to authentic language use and facilitate meaningful communication.	Questions that require learners to communicate ideas, opinions, or information for a meaningful purpose.	Questions involving discussion, explanation, opinion sharing, or authentic language use	What would you say, if your friend told you that sleep is not important?
Self-Investment	Materials should encourage learners	Questions that require learners to	Questions involving	Give another opinion about the

Cognitive Levels and Material Quality of Reading Comprehension Questions in the Grade XI English for Change Textbook

to take responsibility for their own learning and actively contribute to meaning-making.	generate ideas, make decisions, solve problems, or create responses independently.	decision-making, problem-solving, creativity, or independent responses.	importance of sleep for a healthy life?
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To enhance transparency and consistency in the coding process, operational definitions and coding criteria were established for each material quality indicator derived from Tomlinson's (2011) principles. A question was classified as Cognitive Engagement when it required learners to actively process textual information through interpretation, inference, analysis, evaluation, explanation, or reflection rather than merely recall explicit information from the text. For example, questions asking learners to explain reasons, infer meanings, justify opinions, or analyze relationships among ideas were coded under Cognitive Engagement. These operational definitions served as the primary coding guidelines for both raters throughout the analysis process and formed the basis for the assessment of inter-rater agreement.

Results and Discussion

Results

Based on an analysis of the English for Change Grade XI textbook, consisting of five chapters and contains a total of 30 reading comprehension questions to be used as the unit of analysis. This study focuses on two main aspects of the questions: their cognitive level and material quality. All reading comprehension questions directly related to text comprehension were included in the analysis. Meanwhile, pre-reading activities, vocabulary exercises, grammar exercises, speaking tasks, and writing activities were excluded from the units of analysis as the questions did not directly measure students' reading comprehension.

The cognitive level analysis involves grouping reading comprehension questions into categories of thinking processes based on their level of complexity, thus the distribution of cognitive demands measured in the questions. The details of the analysis results are presented in Table 1.

Table 2. Results of Cognitive Level Analysis

Remembering	Understanding	Applying	Analyzing	Evaluating	Creating	Total
10	16	0	2	1	1	30
33,3%	53,3%	0%	6,7%	3,3%	3,3%	100%

The table shows the distribution of cognitive levels based on Bloom's Revised Taxonomy. The Understanding category is the most dominant cognitive level, with 16 questions (53.3%), followed by the Remembering category with 10 questions (33.3%). Meanwhile, the Analyzing category was found in only 2 questions (6.7%), whilst the Evaluating and Creating categories each appeared in only 1 question (3.3%). No questions were found in the Applying category (0%). These findings indicate that the questions in the analysed textbook are still dominated by lower-order thinking skills (LOTS), while the representation of higher-order thinking skills (HOTS) remains limited. In the Merdeka Curriculum Phase F, which emphasizes the development of critical and analytical thinking skills, this distribution reveals that the reading comprehension questions in this textbook do not yet sufficiently support the demands of higher-level learning outcomes. However, these findings are limited to an analysis of 30 questions from a single textbook and cannot be generalised to all senior secondary EFL textbooks.

The material quality analysis evaluates the content of questions in relation to reading texts and learning objectives. This evaluation reflects the ability of questions to support accurate and meaningful comprehension. The results of the analysis are shown in the following table.

Table 3. Results of Material Quality Analysis

Cognitive Engagement	Learner Relevance	Communicative Purpose	Self-Investment	Total
28	0	1	1	30
93,3%	0%	3,3%	3,3%	100%

Cognitive Levels and Material Quality of Reading Comprehension Questions in the Grade XI English for Change Textbook

Table 2 presents an analysis of material quality based on indicators adapted from Tomlinson's (2011) principles of instructional design. The aspect of Cognitive Engagement was the most prominent indicator, accounting for 28 questions (93,3%). This indicator contains questions that encourage students to understand the text's content, pay attention to linguistic features, and engage intellectually in the reading process. Most questions fall under this aspect as students are required to identify main ideas, locate specific information, determine word meanings, or make inferences.

Meanwhile, the Communicative Purpose and Self-investment aspects were each found in only 1 question (3,3%), and the Learner Relevance aspect was not found at all (0%). The Communicative Purpose aspect refers to the use of language for authentic communicative purposes, whilst Self-investment relates to students' active engagement in expressing opinions or making decisions. Learner relevance links the material to students' experiences and needs. These findings point to the fact that the questions in the textbook are more focused on cognitive engagement than on the connection between learning and students' experiences, communicative purposes, and personal engagement.

Discussion

This study generally shows that most textbook questions focus on basic comprehension of the content. This is in line with previous research, indicating that questions are still dominated by Lower-Order Thinking Skills (LOTS), whereas the percentage requiring Higher-Order Thinking Skills (HOTS) is relatively restricted (Zainil et al., 2021; Matthews, 2022; Azmi & Aisyah, 2023; Ekalia et al., 2022). This trend appears in the characteristics of the questions, with a focus on identifying explicit information, determining the main idea, and re-explaining the content of the text, without requiring more complex cognitive processes such as analysis, evaluation, or creation. This also implies a learning orientation focused on reproducing knowledge rather than transforming or constructing it.

Furthermore, the dominance of LOTS in these questions has implications for the limited opportunities students have to develop critical and reflective thinking skills. When students are more frequently presented with mechanical, literal-comprehension tasks, they tend to be less motivated to explore deeper meanings, connect information to broader context, or critically evaluate the text's content (Azmi & Aisyah, 2023). However, within the context of language learning, especially reading, higher-order thinking skills are essential for developing more comprehensive interpretation, argumentation, and meaning-making (Anderson & Krathwohl, 2001). Therefore, these findings point to the need for improvements in question design to balance LOTS and HOTS better, ensuring that learning does not end with comprehension and encourages the development of higher-order cognitive abilities.

Hence, the cognitive level distribution of reading activities in this textbook emphasizes the process of understanding information rather than more complex forms of thinking. This is evident from the dominance of questions at the Understanding (C2) level, with 16 questions that assess students' ability to understand the literal meaning of the text. Students are usually asked to interpret or categorize information based on the content of the reading, with not much encouragement for deeper interpretation. Ideally, the design of reading comprehension questions in the English for Change textbook should align with the established learning outcomes. As stated by Kemendikdasmen (2025), students are expected not only to understand various types of text but also to be able to locate, synthesise, and evaluate information, as well as make inferences about implied meaning. Therefore, sets of questions in the textbook should encompass all competencies and be structured more balanced by giving appropriate portions to higher-order thinking skills. Thus, reading activities do not stop at literal comprehension, but also foster deeper cognitive engagement in line with curriculum expectations.

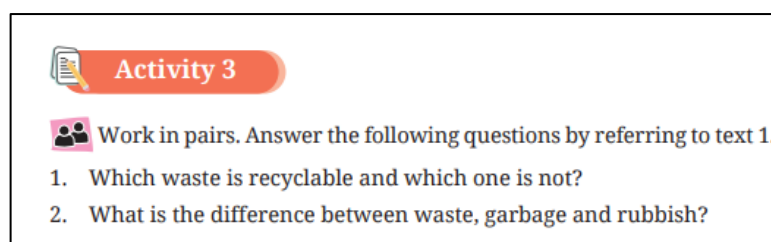


Figure 1. Sample Question of Understanding Level

An example is the question "Which waste is recyclable and which one is not?" in Unit 2, page 66, of the text Types of Waste. This question is categorised as C2 (Understanding) because students are not merely asked to recall information directly from the text, but also to understand the content of the reading and to

Cognitive Levels and Material Quality of Reading Comprehension Questions in the Grade XI English for Change Textbook

classify types of waste based on the characteristics described in the text. This process demonstrates the ability to interpret and organise information, which is a key feature of the Understanding category according to Anderson and Krathwohl (2001). This question does not belong to C1 (Remembering) since students are not simply listing facts or repeating information verbatim. Furthermore, this question does not include C3 (Applying) as students are not asked to implement the concept in a new situation or solve practical problems outside the text context. Therefore, the main focus of the question is on understanding and processing the information obtained from the reading. Similar with Anderson & Krathwohl (2001) Students comprehend a material when they can interpret the meaning of instructional messages, including oral, written, and graphic communications, regardless of how these messages are conveyed: whether in lectures, through books, or on computer screens. Thus, students not only remember the information but also process and organize it so that it can be understood more systematically.

The relevant objective of “Remember” is to improve retention of the material presented in much the same form as it was taught (Anderson & Krathwohl, 2001). Based on findings, 10 questions at the Remembering level (C1) require students to recall factual information, indicating that cognitive activities remain at a basic level.

Besides that, the absence of questions at the Applying level (C3) also suggests that students have not been allowed to apply their knowledge in new situations or contexts, indicating that cross-contextual understanding has not been supported. The ‘Applying’ category contains two cognitive processes: execution (when the task involves a familiar exercise) and implementation (when the task involves an unfamiliar problem) (Anderson & Krathwohl, 2001).

Further findings point out that the proportion of questions measuring Higher Order Thinking Skills remains limited, and therefore does not sufficiently support the development of students’ critical and analytical thinking skills. This is seen in 2 questions that demonstrate a higher level of thinking at the Analyzing level (C4).

 This is individual work. Based on the above text, complete the following table. Refer to the information about authors' and content creators' purposes in **Activity 3**. After the table is completed, follow the discussion led by your teacher.

What's the topic?	What's the purpose of the content creator's blog post?	What might be the whole (including the other parts not shown here) blog post about?

Figure 2. Sample Question of Analyzing Level

One example is the question “What might be the whole (including the other parts not shown here) blog post about?” in Unit 1, page 19, in the Author’s Purposes section. This question asks students to make inferences and construct an overall view of the text based on the available parts. Analyzing involves breaking down material into its constituent parts and determining how those parts relate to one another and to the overall structure. The objectives classified as Analyze include learning to identify the relevant or important parts of a message (differentiating), how these parts are organized (organizing), and the fundamental purpose of the message (attributing) (Anderson & Krathwohl, 2001). This process demonstrates analytical skills because students must connect the information to form a more complete understanding of the text’s content.

There is only 1 question at the Evaluating level (C5), resulting in students having limited opportunities to develop their ability to evaluate and critically assess information. According to Anderson & Krathwohl (2001) evaluation is the process of making judgments based on criteria and standards. The criteria most frequently used are quality, effectiveness, efficiency, and consistency. The category of evaluation includes the cognitive processes of checking (assessments of internal consistency) and critiquing (assessments based on external criteria).

Cognitive Levels and Material Quality of Reading Comprehension Questions in the Grade XI English for Change Textbook

Likewise, only 1 question is at the Creating level (C6), indicating that students' ability to generate new ideas remains insufficient, and their creativity in the learning process has not yet been optimally developed. Anderson & Krathwohl (2001) point out that the creating process can be understood as a sequence of three related phases: problem representation, solution planning, and solution execution. In the initial phase, students seek to understand the task whilst generating various possible solutions (generating) that reflect divergent thinking. Next, students enter the planning phase by examining various alternatives and organizing them into actionable steps, which demonstrates a convergent process. The final stage is implementation, where the plan is realized as a tangible solution (production).

These results highlight that although the textbook includes several questions that encourage higher-level thinking processes, such as analyzing, evaluating, and creating, their distribution remains unbalanced. Questions that focus on basic comprehension still dominate, while questions that demand higher-order thinking skills are relatively fewer. The potential of reading comprehension questions as a means of developing students' critical thinking skills has not been optimally utilized in the textbook.

Regarding the quality of the learning materials based on Tomlinson's principles, most textbook questions demonstrate Cognitive Engagement, with a percentage of 93,3% (28 out of 30 questions). This indicates that the questions are designed to make students actively process information from the text, for example, by understanding the content of the reading or identifying the author's purpose.

As a Planetary Health learner, she understands that it should not be a choice between the two. There is an underlying connection between human and environmental health, where if one is not healthy then neither can be. We need to be illuminating these connections between health and the environment because the solution lies in the heart of where the two meet.

Source: Schmidt, n.d.

1. What is the main idea of paragraph 1? _____
2. What does paragraph 2 talk about? _____
3. What makes Laetania grow up with an understanding that environment and health are important? _____
4. What does Laetania want to protect? _____
5. What is the author's purpose in writing this text? _____

Figure 3. Sample Question of Cognitive Engagement

One example can be found in the question "What is the author's purpose in writing this text?" in Unit 4, page 155, in the text Laetania Belai Djandam. This question requires students to interpret the author's purpose based on the information in the text, thereby focusing on the function and meaning of the text, which involves a process of thinking to comprehend it. Tomlinson (2011) states that materials need to create an impact by incorporating elements of novelty, diversity, unexpectedness, peculiarity, appealing presentation, and engaging content. However, despite some questions being aimed at understanding the author's purpose, this aspect has not completely developed into a Communicative Purpose, as students are directed more towards understanding the content rather than the use of language for actual communicative purposes within a broader context.

On the other hand, teaching materials must provide learners with opportunities to use the target language to achieve communicative purpose (to automatize existing procedural knowledge, and to test the validity of their hypotheses) (Tomlinson, 2011). This study utilized Communicative Purpose indicators to identify questions that required students to use language purposefully in communication contexts resembling real-life situations, including responding, expressing opinions, or interacting with others' statements. Based on these indicators, only one question was classified as a Communicative Purpose question.

Cognitive Levels and Material Quality of Reading Comprehension Questions in the Grade XI English for Change Textbook

Physical health is often also related to the quality of sleep. That's why sleep plays a vital role in your physical health. For example, rest is involved in healing and repairing your heart and blood vessels. Sustained sleep deprivation is associated with an increased risk of kidney disease, heart disease, high blood pressure, stroke, and diabetes. Sleep can also help maintain a healthy balance of hormones that make you feel hungry (ghrelin)/full (leptin). When you don't get enough sleep, your ghrelin level will go up, and your leptin level will drop. That will make you feel more hungry than when you get enough rest.

Those benefits of the importance of sleep for health are presented. There are a lot of benefits of sleep to get better health, not only physically but also mentally. That's why sleep is the activity that we should be concerned about for getting a healthy life.

Source: English Admin, n.d.

1. What is the author's purpose in writing this text?
2. What is the main idea of the text?
3. Give another opinion about the importance of sleep for a healthy life?
4. What would you say, if your friend told you that sleep is not important?

Figure 4. Sample Question of Communicative Purpose

For example, the question “What would you say if your friend said that sleep is not important?” on page 117 of Unit 3 in the text *The Importance of Sleep for Health*. This question is classified as a Communicative Purpose question since students are asked to produce a response to address another person's opinion in an everyday conversational situation. The question focuses not only on understanding the text's content but also on the use of language as a tool for meaningful communication. In contrast, the majority of other questions do not meet this criterion as they merely ask students to find information, identify the main idea, or answer questions based on the text's content without involving the authentic use of language in a communicative context.

Similarly, the self-investment aspect also accounted for only 3% (1 question). This can be seen in the question “Give another opinion about the importance of sleep for a healthy life,” which asks students to express their personal opinions on the topic. Questions like this encourage students' personal involvement in the learning process. Aligned with Tomlinson (2011) teaching materials should encourage and facilitate learner self-investment (by giving learners responsibility for decision-making and encouraging them to discover new aspects of the language independently).

Learning materials should be designed to make learners feel at ease (by using white space to avoid a cluttered appearance, and by using text and illustrations that relate to their own culture; through an approach of support rather than constant testing; and using a personal voice) (Tomlinson, 2011). Conversely, the aspect of learner relevance was not found at all (0%). It showed that the questions' content had not been connected to the students' experiences, needs, or life context, which could reduce the relevance and meaningfulness of the learning for them.

Furthermore, from the perspective of learning material quality, most textbook questions demonstrate Cognitive Engagement, meaning that students are cognitively engaged with the information in the text. However, other aspects such as Learner Relevance, Communicative Purpose, and Self-Investment are still not commonly found in reading comprehension questions. These students are involved in the process of understanding the text; opportunities for them to connect the material to their personal experiences or use language in real communication contexts are still limited.

In English as a Foreign Language (EFL) teaching, these findings are significant as textbooks not only serve a pedagogical function but also act as an ideological medium that represents specific values, perspectives, and social practices. Therefore, EFL textbooks play a role in incorporating language skills with social, cultural, and environmental issues, and should therefore be able to encourage students to think critically and reflectively about various contexts (Mahbub et al., 2024; Javahery et al., 2025). However, the dominance of LOTS questions in these textbooks implies that their potential has not been fully utilized.

Furthermore, within the framework of language learning materials, textbooks are a concrete representation of various learning resources designed to support the language acquisition process. Learning

Cognitive Levels and Material Quality of Reading Comprehension Questions in the Grade XI English for Change Textbook

materials are defined by Nesba (2025) as encompassing all resources capable of supporting learning, including texts, visual media, and interactive activities. Hence, the quality of questions in textbooks has become an important measure in assessing their ability to encourage meaningful Cognitive Engagement. Although the results of the study show that most questions fulfill the Cognitive Engagement criteria, the engagement is still limited to the processing of literal information, and has not reached the level of deeper meaning exploration or the use of language in real-life contexts.

Similar views are expressed by Fithriani (2022) that effective teaching materials should not merely focus on comprehension, but also shape students' ways of thinking, acting, and evaluating in real-life contexts. However, the limitations of questions at the HOTS level (C4-C6), as well as the lack of emphasis on Communicative Purpose and self-investment, demonstrate that this textbook does not yet sufficiently support the development of these competencies. These are crucial aspects in EFL learning, where the ability to use language in communicative contexts relevant to students' experiences plays a vital role.

Furthermore, the absence of Learner Relevance in the questions indicates a mismatch between the learning content and the learners' real-life contexts. It contradicts the principle of selecting EFL textbooks, which should align with the curriculum and learners' needs, including the integration of cultural values, diversity, and real-life communication (Soto & Cevallos, 2021; Vuong et al., 2025; Khalid & Ghania, 2019). When the material is unrelated to the students' experiences, learning tends to become meaningless and affects their motivation to learn.

The results of this study emphasize that, despite the effectiveness of the English for Change textbook in promoting students' basic comprehension and cognitive engagement, there remains an imbalance in the distribution of cognitive levels and the quality of learning materials. This analysis of the Grade XI textbook shows that the questions presented are capable of helping students understand the reading material and process information cognitively, but most of them are still dominated at the literal comprehension level. Questions that encourage higher-order thinking skills (HOTS) relevant to students' experiences, as well as those that develop communicative objectives, are still relatively limited. Consequently, the potential of language learning as a means of developing critical thinking and the use of language in real-life contexts has not been optimally utilized. In the EFL, this situation shows that textbooks have not completely functioned as teaching materials that not only transfer knowledge but also incorporate values, social context, and authentic communication activities. This may be influenced by the orientation of textbook development that emphasizes basic competency attainment, ease of evaluation, and the assumption that literal comprehension forms the foundation before progressing to more complex thinking processes, in addition to factors such as curriculum standardisation and limited teaching time. Therefore, there is a need to develop more balanced textbooks that do not merely focus on comprehension but also systematically accommodate higher-order thinking skills, strengthen communicative competencies, and enhance relevance to students' lives. This would enable textbooks to optimize their function as language learning tools that not only teach language but also shape critical thinking skills and stimulate active student participation in accordance with curriculum requirements.

This condition has the potential to influence the learning design for reading, particularly in terms of providing opportunities for students to develop higher-order thinking skills and become actively engaged in learning. The predominance of questions focused on Understanding and Remembering implies that students are more frequently directed towards comprehending textual information rather than exploring, evaluating, or connecting the content of the text to a broader context. Furthermore, the limited availability of questions that address Student Relevance, Communicative Purpose, and Self-Investment aspects shows that students still have few opportunities to use language authentically and relate the material to their personal experiences.

However, the Merdeka Curriculum emphasizes a student-centered approach to learning, encouraging active participation and the development of 21st-century skills. Therefore, the development of more varied reading comprehension questions, both in terms of cognitive level and material quality, is crucial to ensure that textbooks support the cultivation of higher-order thinking skills, authentic communication, and students' active engagement in reading instruction.

Conclusion

Reading comprehension questions in the English for Change Grade XI textbook are dominated by Lower-Order Thinking Skills (LOTS), particularly the categories of Understanding (C2) and Remembering (C1), whilst the proportion of Higher-Order Thinking Skills (HOTS) questions involving Analyzing, Evaluating, and Creating remains limited. Regarding the quality of the material, the majority of the questions fulfill the cognitive engagement indicators, although they are lacking in terms of Learner-Relevance, Communicative

Cognitive Levels and Material Quality of Reading Comprehension Questions in the Grade XI English for Change Textbook

Purpose, and Self-Investment. These findings indicate that the questions in the textbook are more focused on text comprehension than on the development of critical thinking, authentic communication, and students' personal engagement in learning.

The implications of these findings suggest an imbalance between the ideal function of reading comprehension questions and current practice, still dominated by lower-order thinking skills. Consequently, more purposeful improvement strategies are required. Teachers can make simple adjustments by shifting the focus of questions from merely seeking information to analyzing, evaluating, or relating the text's content to real-world contexts. For example, a LOTS question such as "What is the main idea of this text?" can be revised into a HOTS question such as "How does the main idea of this text relate to current issues on social media? Give your reasons." or "Do you agree with the author's opinion? Explain your answer using evidence from the text." This modification ensures that students not only understand the text but are also encouraged to be critical, reflective, and communicative thinkers. Therefore, the teacher's role is crucial in bridging the limitations of textbooks to ensure they align with learning objectives that are more meaningful and oriented towards developing higher-order thinking skills. While textbook authors and curriculum developers must consistently integrate cognitive levels and material quality into question design. This stems from the fact that the quality of questions directly influences students' comprehension and critical thinking skills, and also demonstrates that the design of teaching materials plays a strategic role in shaping the quality of cognitive processes in learning.

This study has limitations as it only analyzed 30 reading comprehension questions from a single textbook. Therefore, the results may not be generalized to all English textbooks within the Merdeka Curriculum. Consequently, further research is recommended to involve a wider range of textbooks and a larger number of questions to obtain a more comprehensive overview. Practical recommendations suggest that textbook authors and teachers should develop more questions to encourage critical thinking, language use in communicative contexts, and the relevance of content to students' experiences and learning needs, as outlined in Phase F of the Merdeka Curriculum.

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Cognitive Levels and Material Quality of Reading Comprehension Questions in the Grade XI English for Change Textbook

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