



The Levels Of Understanding In The Reading Questions Of The English Textbook English For Nusantara For Grade 9 Based On Solo Taxonomy

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ARTICLE INFO	ABSTRACT
Article history:	<p>This study aimed to identify the levels of understanding represented in the reading questions of the English for Nusantara textbook for Grade 9 based on the SOLO Taxonomy. This study employed a descriptive qualitative design using content analysis. The data consisted of 149 reading questions in the textbook and were analyzed using the interactive model proposed by Miles, Huberman, and Saldāna (2014). The findings revealed that the reading questions were represented across four SOLO levels: Uni-Structural, Multi-Structural, Relational, and Extended-Abstract, while no questions were classified at the Pre-Structural Level. The Uni-Structural Level was the most dominant (53.69%), followed by the Multi-Structural Level (26.17%), the Relational Level (15.43%), and the Extended-Abstract Level (4.69%). These findings indicate that the textbook emphasizes students' understanding of explicit information while also providing opportunities to develop deeper understanding through higher-level reading questions.</p>
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INTRODUCTION

Textbooks play a central role in formal education systems, particularly in English language teaching, as they serve as the primary instructional resources that shape classroom practices, learning objectives, and assessment activities (Prodanović & Gavranović, 2022). Similarly, Tomlinson (2011) argues that to support meaningful learning, language textbooks should encourage students to think, reflect, and process information deeply in order to promote meaningful learning. This viewpoint highlights the crucial cognitive engagement in EFL textbook design. To support students' linguistic and understanding development, English textbooks provide various language skills activities, one of which is reading. Reading plays a vital role in language development since it provides students with a rich vocabulary, grammatical awareness, and discourse skills (Grabe & Stoller, 2019). According to Grabe (2009), reading is not a passive activity but an active process that involves interpreting, analyzing, and synthesizing information. Consequently, reading instruction aims to foster deeper understanding rather than surface-level understanding.

At the global level, contemporary education emphasizes the development of deep learning and higher-order thinking skills as essential competencies for the twenty-first century (Miterianifa et al., 2021). As Fullan and Langworthy (2014) define deep learning as a process in which learners actively construct knowledge, connect ideas, and apply understanding in meaningful contexts. In Indonesia, these global educational priorities are represented in the implementation of the Merdeka Curriculum. As a result, textbooks that are aligned with this curriculum are expected to facilitate learning tasks that encourage critical and reflective thinking (Huda et al., 2024).

Despite these curricular expectations, several studies indicate that English textbooks used in Indonesian schools still predominantly emphasize lower-order cognitive skills (Ariawan & Kholidi, 2022). As Silalahi (2022) found, reading questions in senior high school English textbooks mainly focus on factual recall and explicit information. Similarly, Purba (2024) reports that many reading tasks fail to challenge students to analyze or evaluate texts, suggesting that the cognitive demands remain limited. These findings reveal a gap between curriculum objectives and the practices implemented in textbooks.

Therefore, to evaluate the depth of students' understanding, an appropriate analytical framework is required. Biggs and Collis (1982) introduced the Structure of the Observed Learning Outcome (SOLO) Taxonomy, which categorizes learning outcomes based on the structural complexity of understanding. SOLO Taxonomy emphasizes the quality and depth of understanding demonstrated in learning tasks, especially how ideas and

information are structured within questions. Biggs and Tang (2011) argue that SOLO emphasizes how well learners integrate ideas and construct meaning. Supporting this view, Hattie and Brown (2004) state that SOLO is particularly useful for analyzing learning tasks that aim to promote conceptual understanding. Therefore, SOLO Taxonomy is considered suitable for analyzing reading questions in textbooks.

However, despite its relevance, the use of SOLO Taxonomy in Indonesian textbook analysis remains limited. Most previous studies have relied on Bloom’s Taxonomy to examine cognitive levels in reading questions. As noted by Purba (2024) and Febria (2024), few studies have analyzed textbooks using SOLO Taxonomy, particularly at the junior secondary level. This indicates a clear research gap in the literature. This gap becomes more significant when considering government-issued textbooks such as English for Nusantara as an official textbook published by Kemdikbudristek. Richards (2014) argues that government textbooks play a crucial role in standardizing educational quality. Therefore, examining the cognitive quality of reading questions in this textbook is essential.

Preliminary data from the textbook revealed that some reading questions focused on the Uni-structural and Multi-structural Levels of understanding. During reading activities using the English for Nusantara textbook for Grade 9, students are generally directed to find explicit answers literally from the text without connecting or interpreting the information more deeply. Hattie and Brown (2004) argue that tasks at these levels rarely promote deep understanding. The limited presence of Relational and Extended-Abstract Level questions raises concerns about the textbook’s ability to foster deep learning. This condition highlights a gap between the curriculum expectations of the Merdeka Curriculum and the actual cognitive demands of reading questions in the English for Nusantara textbook. Fullan and Langworthy (2014) emphasize that deep learning requires tasks that promote integration and transfer of knowledge, while Kemdikbudristek (2022) underscores the importance of higher-order thinking in curriculum implementation. However, the reading questions analyzed do not consistently reflect these principles.

For these reasons, the researcher focuses on analyzing the levels of understanding reflected in the reading questions of the English textbook entitled English for Nusantara for Grade 9 based on SOLO Taxonomy.

LITERATURE REVIEW

SOLO Taxonomy

Biggs and Collis (1982), as discussed by Brabrand and Dahl (2009), define the Structure of the Observed Learning Outcome (SOLO) Taxonomy as a framework for evaluating the quality of students’ understanding by examining how knowledge is structured in response to learning tasks. Instead of focusing on specific cognitive actions, the SOLO Taxonomy emphasizes that the complexity and integration of ideas are demonstrated in learning outcomes. This approach allows researcher to observe how learners perceive information as they answer questions.

According to Chalmers (2011), the SOLO Taxonomy categorizes learning outcomes into hierarchical levels that show an increase in the structural complexity of understanding. At lower levels, learners show limited understanding, while at higher levels they show the ability to connect, integrate, and generalize ideas. This hierarchical nature makes the SOLO Taxonomy suitable for evaluating developments in learning.

The Levels of Understanding

According to Biggs and Collis (1982), as presented by Brabrand & Dahl (2009), (Chalmers, 2011), and (Biggs & Tang, 2011), SOLO Taxonomy classifies understanding into five hierarchical levels, namely:

- **Pre-structural**, where questions at this level tend to be ambiguous, unfocused, or not in harmony with the content of the text, so that they do not demand meaningful understanding.
- **Uni-structural**, where questions demand the use of one clear and direct piece of information from the text. The verbs of Uni-structural Level in SOLO Taxonomy, such as: *define, identify, recognize, find, and arrange*.
- **Multi-structural**, where questions at this level require students to gather some facts or ideas without integrating them. The verbs of Multi-structural Level in SOLO Taxonomy, such as: *enumerate, describe, classify, structure, and list*.
- **Relational**, where questions at this level require students to connect various pieces of information in the text to form a unified understanding. The verbs of Relational Level in SOLO Taxonomy, such as: *compare, relate, explain, apply theory, and summarize*.
- **Extended-Abstract**, where questions at this level require students to go beyond the information available in the text. The verbs of Extended-Abstract Level in SOLO Taxonomy, such as: *predict, generalize, evaluate, criticize, and hypothesize*.

Reading Questions

Reading has several types of tests or questions, as mentioned by Day & Park (2005), there are:

- **Yes/No Question:** This type of question requires students to answer with affirmative or negative answers, and is generally used to check basic understanding of a text.
- **Alternative Question:** This type of question presents two or more options linked by the word "or" and asks students to choose the most accurate answer based on the text.
- **True/False Question:** This type of question asks students to decide whether the given statement accurately reflects the information in the text, making it useful to check comprehension.
- **Wh-Question:** This type of question uses question words such as, what, who, when, where, how, and why to direct students to specific information or

deeper interpretations of the text.

- **Multiple-Choice Question:** The question provides several possible answers and requires students to choose the most appropriate answer based on the text.

Textbook

In the context of teaching reading, textbooks play an important role in directing students' comprehension processes. Afflerbach et al. (2020) note that the reading material and accompanying questions determine whether learners engage in surface-level decipherment or deeper construction of meaning. When textbooks prioritize literal comprehension questions, students may focus only on capturing explicit information rather than integrating ideas. In contrast, textbooks that include interpretive and evaluative questions can encourage deeper understanding. Therefore, textbooks should be understood as the primary mediator between curriculum expectations and actual student cognitive engagement.

Previous Studies

To support the research, this section discusses previous studies that are relevant to this study. Firstly, Rezeki and Lubis (2021) conducted a descriptive qualitative study analyzing teacher-made Indonesian questions based on the SOLO Taxonomy for eleventh-grade students at SMA Negeri 12 Medan. The findings showed that most questions focused on Extended-Abstract Levels (40%).

Secondly, Uyun and Wardana (2023) analyzed the level of questions in elementary school textbooks developed under the 2013 Curriculum using the SOLO Taxonomy. The finding states that textbook questions are unevenly distributed across SOLO levels, with the focus on the Relational Level (90.62%). This research supports current studies by confirming that the SOLO Taxonomy is an effective framework for evaluating the cognitive demands of textbook questions.

Thirdly, Fathani, Sunardi, and Irfan (2021) examined the question levels in mathematical story problems contained in the Erlangga Straight Point Series textbook for Grade five elementary school students using the SOLO Taxonomy. The results showed that the story is dominated by the Multi-structural Level (92.72%), followed by the Relational Level (7.27%).

Fourthly, Silalahi (2022) found that reading comprehension questions in senior high school EFL textbooks and found that most of the questions mainly focused on factual recall and explicit information. The findings indicate that the reading questions tended to emphasize lower levels of understanding rather than encouraging students to develop deeper comprehension.

Fifthly, Purba (2024) analyzed higher-order thinking skills in reading questions of English textbooks and reported that many reading tasks failed to challenge students to analyze or evaluate texts, indicating that the cognitive demands remained limited. The findings also revealed a gap between

curriculum objectives and the actual practices implemented in textbooks.

Sixthly, Febria (2024) investigated higher-order thinking skills in reading tasks of English textbooks and found that reading questions in Indonesian EFL textbooks rarely encouraged students to connect ideas or construct interpretations. The findings indicate that many textbook questions still focused on surface-level comprehension rather than deeper understanding.

Lastly, Elmiana (2018) critically analyzed tasks in Indonesian senior high school EFL textbooks and argued that textbook activities often prioritized linguistic accuracy over cognitive depth. The study showed that reading comprehension questions frequently failed to support deep understanding, even though textbooks are expected to align with higher-order learning objectives.

METHOD

Research Design

This study employs a Qualitative Descriptive design. According to Creswell (2023), qualitative descriptive studies aim to provide a detailed and accurate description of a phenomenon as it occurs naturally, typically analyzed in the form of text. In line with this perspective, this study uses content analysis as its research approach. Fraenkel et al. (2012) describe content analysis as an indirect research technique used to analyze forms of human communication, especially written materials such as books, texts, articles, magazines, and other instructional documents. Accordingly, this study analyzed the reading questions contained in the English textbook entitled English for Nusantara for Grade 9 to examine the levels of understanding represented in these reading questions based on SOLO Taxonomy.

Data and Sources of Data

The data is from the English textbook "English for Nusantara" for Grade 9, published by the Ministry of Education, Culture, Research, and Technology. The analysis was focused specifically on the reading practice questions contained in selected chapters of the textbook. In this study, the source of data comprises five chapters of the textbook to identify the level of understanding represented in these reading questions based on the SOLO Taxonomy framework.

Instruments of Data Collection

The research instrument used in this study is a documentation checklist. According to Arikunto (2006), a checklist is an instrument that contains a list of categories that are used to collect and organize data systematically. In this study, a checklist was developed based on the framework of the SOLO Taxonomy, which classifies the level of understanding into five hierarchical categories: Pre-structural, Uni-structural, Multi-structural, Relational, and Extended-Abstract Levels (Biggs & Collis, 1982).

Data Collection Procedure

According to Krippendorff (2018), content analysis is a research technique for making replicable and valid inferences from texts to the contexts of their use. The analysis process involves several stages, namely:

- Unitizing, where the unit of analysis in this study consists of reading questions contained in Chapters 1 to 5 of the English for Nusantara textbook for Grade 9,
- Sampling, it involves selecting data for analysis from textbooks. In this study, all reading questions from Chapters 1 to 5 were collected to ensure that the data comprehensively represented the textbook's content and to avoid selective bias.

RESULTS

Levels of Understanding Representation in the reading questions of the English for Nusantara textbook for Grade 9

The findings state that the reading questions in the English for Nusantara textbook for Grade 9 are dominated by Uni-structural (53.69%) and Multi-structural Levels (26.17%), while Relational Level (15.43%) and Extended-Abstract Level (4.69%) arise less frequently. This indicates that the textbook places more emphasis on helping students understand explicit information than on encouraging them to integrate ideas or extend their understanding beyond the text. In line with Afflerbach et al. (2020), textbooks that predominantly emphasize literal comprehension questions can be less effective in encouraging students to integrate ideas and develop deeper understanding.

DISCUSSIONS

The findings indicate that the reading questions in the English for Nusantara textbook for Grade 9 are distributed across four SOLO levels, such as Uni-structural, Multi-structural, Relational, and Extended-Abstract Levels. The dominance of Uni-structural and Multi-structural Level questions stated that the textbook places greater emphasis on helping students understand explicit information and several relevant aspects of a text before engaging in deeper comprehension processes. This finding supports Afflerbach et al. (2020), who argue that the types of questions provided in textbooks influence the depth of students' comprehension, as questions focusing on explicit information tend to promote literal comprehension, whereas interpretive and evaluative questions encourage deeper understanding.

The findings of this study show both similarities and differences when compared with previous studies. The absence of the Pre-structural Level is generally in line with studies that use the SOLO Taxonomy framework but in non-English subjects. The studies were conducted by Rezeki and Lubis (2021), Uyun and Wardana (2023), and Fathani et al. (2021), which mainly reported questions from the Uni-structural to Extended Abstract Levels. However, the dominant level identified in this study differs from those studies, as Rezeki and Lubis (2021) found Extended Abstract as the dominant level, Uyun and Wardana (2023) found Relational as the dominant level, and Fathani et al. (2021) reported Multi-structural

Level as the most frequent level. In contrast, the present findings are more closely related to those of Silalahi (2022), Purba(2024), Febria (2024), and Elmiana (2018), who proposed that reading questions in EFL textbooks in Indonesia tend to emphasize lower and middle levels of understanding more than higher-level comprehension processes.

This study also contributes to the existing literature by providing a different perspective on the analysis of reading questions in English textbooks. Previous studies applying the SOLO Taxonomy have primarily focused on Mathematics and Indonesian materials, while studies on English textbooks generally use the Revised Bloom's Taxonomy framework. Therefore, this study extends the application of the SOLO Taxonomy proposed by Biggs and Collis (1982) to the analysis of reading questions in English textbooks and provides a clearer description of how the levels of understanding are represented in the English for Nusantara textbook for Grade 9.

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