ANALYSIS HOTS QUESTIONS IN ENGLISH LKS BASED ON BLOOM'S TAXONOMY

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Abstract: This study examines the alignment between claimed Higher Order Thinking Skills (HOTS) questions in Grade 4 English worksheets and Bloom's Revised Taxonomy within Indonesia's Merdeka Curriculum. Through systematic analysis of 40 HOTS-labeled questions from a widely-used student worksheet (Wijaya & Wijayanti, 2022), the research reveals a significant discrepancy: 100% of questions were classified as Lower Order Thinking Skills (LOTS), with 95% at the Understanding level and 5% at Applying level. The investigation focuses on two key aspects: cognitive level validation and question format analysis. Findings demonstrate that multiple-choice dominance (72.5%) and limited contextual complexity fundamentally contradict HOTS criteria. The study provides actionable recommendations for curriculum-aligned material development, emphasizing the need for authentic scenario-based questions and teacher capacity building. These findings contribute to ongoing efforts to improve the quality of elementary English teaching materials in Indonesia's evolving educational landscape.

Key Words: HOTS validation, Bloom's taxonomy, material development, cognitive rigor

INTRODUCTION

Changes in education in Indonesia are often revised from time to time. This is caused by changes in curriculum policies made by the government. The reason for the purpose of this change leads to an era that continues to transform endlessly, (Puspita & Atikah, 2023). Then, the increasing flow of technological development is unstoppable these days, so education is used as a pillar for children as a means of understanding and filtering information circulating without a certainty.

As stated by Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, (2024) since its implementation in 2022, the implementation of Merdeka Curriculum is designed to improve and enhance the quality of education in Indonesia, which is focused on High Order Thinking Skill or better known as HOTS. In Bloom's revised taxonomy, there are 3 cognitive levels in HOTS namely Analyzing, Evaluating, and creating as well as contrasting with this, the other 3 in LOTS include Remembering, Understanding and applying which stated by (Anderson & Krathwohl, 2001).

Sugiarti & Khodari, (2022) highlights that Student Worksheets or as we known (*LKS*) are essential instruments to support the process of investigating, solving problems and students' critical or creative thinking skills. According to Kemendikbudristek, (2022) The *LKS* is expected to present HOTS practice questions to develop critical and creative thinking skills in analyzing, evaluating or creating rather than focusing on memorization, especially for foreign language / English lessons. The integration of cooperative learning in the curriculum is crucial in the context of Merdeka Curriculum, especially to encourage HOTS in English classes. This approach is vital as EFL students need hands-on practice to demonstrate their English proficiency, rather than simply memorizing theoretical concepts (Ismiatun et al., 2020). Unfortunately, recent research has found that some *LKS* have not managed to present questions that truly meet HOTS standards.

The issue of the dominant LOTS which is mistakenly labelled as HOTS has also been a concern in previous studies. For example, previous research concretely shows that LOTS-based questions far outnumber HOTS in summative assessment (Setyorini, 2025). Therefore, the study recommends that future researchers analyze the learning tools used and seek to improve the quality of teachers in designing and implementing HOTS questions.

The potential inappropriateness of HOTS labelling in *LKS* can be a barrier to achieving the ideals of the Merdeka Curriculum to create students who think critically and creatively (Kemendikbudristek, 2022).

Thus, this research is crucial in exploring: (1) the level of conformity of *LKS* questions with HOTS standards according to the revised Bloom's Taxonomy, (2) the impact of the question presentation format on the cognitive level measured. Using a qualitative document analysis approach, this study will categorize 40 *LKS* questions and analyse the format and context of the questions to provide an in-depth understanding of the quality of the *LKS*. Through these findings, it is hoped that practical recommendations can be formulated for teachers to

improve the design of the *LKS*, in line with the Merdeka Curriculum's goal of developing primary school students' HOTS.

This study analysed 40 questions from the Grade 4 *LKS* that claimed to be HOTS-based. Although we classified all the questions systematically, we will focus the presentation of the results on key examples (such as question numbers 10 and 39) for ease of presentation.

METHODS

This study used a descriptive qualitative approach to explore the phenomenon in depth, without relying on quantitative measurements. The choice of this approach was based on its suitability for evaluating the content of the document (*LKS*) and interpreting the cognitive level and presentation of the questions based on the revised Bloom's Taxonomy. The choice of this approach was based on its ability to provide rich insights into the research subject, especially in the context of assessment practices carried out by teachers (Setyorini, 2025).

As the main technique, document analysis was applied to systematically review 40 *LKS* questions aimed at answering the three research questions. The main focus of this study is the evaluation of HOTS-labelled questions on grade 4 English worksheets in the context of Merdeka Curriculum in elementary schools in Malang.

The main object of this research is 40 HOTS-labelled questions from Grade 4 English Student Worksheets (*LKS*) written by Wijaya and Wijayanti (2022), specifically in Units 8 to 12. These *LKS* are actively used in several elementary schools in Malang that have implemented Merdeka Curriculum.

The data for this study was collected through document analysis, a qualitative technique that involves the systematic evaluation of written documents. The data collection procedure included the following steps: Collection of *LKS*: Collecting grade 4 English *LKS* written by Wijaya and Wijayanti (2022) from elementary schools in Malang. Them, Problem Selection: Selecting 40 questions labelled HOTS from the *LKS*. Last, Data Copying: Copying each question into the analysis table, complete with examples such as time-specific questions ("Choose a sentence with a specific time") and fill-in questions ("Write a sentence using 'never'").

Document analysis was chosen because it is most suitable for evaluating item content based on Bloom's Revised Taxonomy, allowing in-depth qualitative interpretation without the need for frequency counts as in content analysis. The data collected included the question text, format, and context of the questions, which were then analysed to answer the research objectives.

This study used main instruments Bloom's Revised Taxonomy classification guidelines Krathwohl (2002), in the form of a table containing verbs and descriptions for each cognitive level (Remembering, Understanding, Applying, Analyzing, Evaluating, Creating). This guideline helps classify questions, for example, the verb "select" in specific time questions indicates the Understanding level. Second, the question presentation analysis table was used to record the question format (multiple choice/fill-in) and context (simple/complex) in order to evaluate its impact on cognitive levels.

FINDINGS AND DISCUSSIONS

The data was analyzed by Bloom's Revised Taxonomy, in this study found that Analysis of the 40 *LKS* questions revealed that none of the questions reached the Higher Order Thinking Skills (HOTS) level, such as Analyzing, Evaluating, or Creating, based on the revised Bloom's Taxonomy (Krathwohl, 2002). Instead, all questions were at the Lower Order Thinking Skills (LOTS) level, with the following distribution: understanding: 38 questions, remembering: 0 questions, applying: 2 questions. Then for analysis questions of presentation of the 40 classifications showed that 29 questions were multiple-choice format and 11 questions were fill-in.

The contexts of the questions were mostly simple, focusing on basic vocabulary (e.g., time, daily activities) without complex real situations. For example, question 10 (multiple choice) tests understanding of specific times (e.g., "at 1 o'clock") in a simple format, making it easy for students to choose the correct answer without in-depth analysis. In contrast, question 39 (fill-in-the-blank) allows for the application of the vocabulary "never," but remains limited to basic vocabulary Out of 40 questions analysed, were classified as LOTS.

The finding from the 40 classifications shows a gap with the HOTS label and the objectives of the Merdeka Curriculum. Question 10, for example, only tests Understanding with low-level analysis, far from HOTS such as Analyzing or Evaluating. The dominance of multiple choice, as in question 40, supports LOTS. Simple contexts, such as in question 39, also fail to encourage critical thinking. This research contributes by analyzing the Grade 4 *LKS* of Merdeka Curriculum, highlighting the need for revision of the questions. Classification details support this discussion.

The findings that 95% of *LKS* questions are classified as LOTS (understanding) is in line with the research of Surono et al. (2023) who analysed junior high school textbooks and found 80% of the questions were LOTS. However, this study reveals a bigger gap: this primary school worksheets questions claimed to be HOTS turned out to be LOTS indicating systematic problems in the design of basic learning materials.

The finding of LOTS dominance in this LKS supports previous research (Surono et al., 2023; Hasyim et al., 2025), the main factor is the lack of understanding of the real HOTS criteria (Anderson & Krathwohl,

2001), as well as the lack of question design training (Sugiarti & Khodari, 2022). The implication is that there needs to be an in-depth socialization of Bloom's taxonomy to elementary school stakeholders.

CONCLUSIONS AND SUGGESTIONS

The analysis shows that all 40 questions were at the Lower Order Thinking Skills (LOTS) level, with a distribution of 29 questions at the Understanding level, 0 questions Remembering, and 2 questions Applying. There were no questions that reached the HOTS level (Analyzing, Evaluating, Creating).

And then, the presentation of questions is dominated by multiple choice format (29 questions, with 11 questions in fill-in format. A total of 80% of the questions had simple contexts, focusing on basic vocabulary such as time or daily activities, without real complex situations.

The suggestion for elementary school teachers, it is recommended to modify the *LKS* questions to better support HOTS. For example, the question "Write a sentence using 'never'" can be extended to a paragraph writing activity about daily habits that involves evaluation or creation. Teachers can use the *LKS* as a starting material, then add project-based tasks, such as making a daily schedule, to encourage critical thinking of grade 4 students.

For curriculum developers, the Ministry of Education and Culture needs to provide guidelines for the design of HOTS questions specific to primary school *LKS*, including examples of questions that reflect Analyzing or Creating. Periodic evaluation of *LKS* in circulation is also needed to ensure quality and alignment with Merdeka Curriculum.

For further research, it is recommended to examine *LKS* in other subjects, such as science or mathematics, to measure the suitability of HOTS in the Merdeka Curriculum. and can conduct research on English subjects with *LKS* from other publications to increase references. Research can also compare *LKS* with textbooks or explore teacher perceptions of HOTS through interviews, in order to enrich understanding of the implementation of the Merdeka Curriculum in elementary schools.

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