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# EFL Teachers' Assessment Model of Higher Order Thinking Skills

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**ABSTRACT**

This result discussed about Higher Order Thinking Skills (HOTS) referred to a critical thinking process and creative thinking ability. The problem was teacher still can't develop assessment relevant to the principle of HOTS aspect. The research was conducted to describe about the EFL teachers' model assessment in assessing students' Higher Order Thinking Skills, to describe the EFL teachers' model assessment in assessing students' higher order thinking relevant to the principle of the Higher Order Thinking Skills Evaluation. The research method was quantitative. The subject of the research is 3 english teacher. Data collected through teacher evaluation test, and to validity of the result was English rubric. The data analysis by define the research question, define the content to be included and define the units of analysis. The result of this research were as follow: 1) Assessment model develop by EFL teachers' to assess students' Higher Order Thinking Skills showed in various assessment with multiple choice while another assessment model was online multiple choice by integrating test in online text and another model were essay and fill the blank which regarding to the Higher Order Thinking evaluation test. 2) The Relevance of assessment and the principle of Higher Order Thinking showed first assessment scored 62% which categorized as not relevance. Second assessment scored 53% which categorized as relevance, third assessment showed scored 100% which categorized as relevance.

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## INTRODUCTION

The Indonesian government has been fully aware of the key concern of the creation of Higher Order Thinking Skills for students, and it was included in the revision of the 2013 curriculum. For instance, Mulyasa stated that curriculum and good learning could optimally improve the potential of students, specially the Higher Order Thinking Skills of students. Graduates who are autonomous, active, imaginative, inventive, and have character through the formation of knowledge, skills, and attitudes can be seen as the sign.

It is recommended that Higher Order Thinking Skills-based learning and evaluation be used for quality education. In the industrial revolution 4.0.0, the introduction of Higher Order Thinking Skills-based learning and evaluation is required to enhance the quality and competence of graduates to face the digital era. Those competencies are the qualifications that consist of attitudes, knowledge, and skills that refer to national educational goals. Other qualifications that must be enhanced are the ability of students in transferring information, evaluating the information, and creating the information in a new context.

Professional teachers significantly affect the standard of graduates. As the key to good learning and to achieve the quality of graduates, the role of skilled teachers in learning is very significant. The teachers who are experienced in creating a successful and productive learning method are skilled. It is possible to build quality students and education through qualified teachers. That is why the quality of learning has become one of the central and local governments' key targets for improving the quality of education, in particular the quality of graduates. From their Higher Order Thinking Skills, graduate efficiency can be seen.

Developing Higher Order Thinking Skills-based learning and evaluation is a program produced by the Ministry of Education and Culture. The goal of this program is to enhance quality of graduates. This program was created in 2018 to suit the course of the policy of the Ministry of Education and Culture. Reinforcing character education and incorporating Higher Order Thinking Skills into the process of teaching and learning is the most critical strategy.

Fundamentally, Higher Order Thinking Skills (HOTS) is a critical thinking process and creative thinking ability. Those abilities constitute both problem-solving skills and decision ability on new situations by connecting interconnected information, manipulating and transforming new and old knowledge and experiences critically and creatively. Mohamed et al and Newmann, as cited in Heong et al, eluciated that Higher Order Thinking Skills demanded the ability to translate, review and explain the meaning of the idea. Overall, a person can be categorized as having Hogher-Order Thinking Skills when he or she can form a new idea from prior knowledge into the new rational concept. In this case, to measure the Higher Order Thinking Skills requires an instrument and assessment to train students' thinking skills consist of logical, systematic, critical, creative as well as rational.

For students, Higher Order Thinking Skills is an essential competency in facing a more dynamic life in the future. Therefore, it was appropriate to implement Higher Order Thinking Skills early in the curriculum. Learning instruction, referred to as Higher Order Thinking Skills, allows students to do active learning. Many studies showed that active learning provides opportunities for students to be able to absorb more subject matter, remember, understand for longer, and the most important one that the students can think at a higher level.

Furthermore, Higher Order Thinking Skills is one of the main elements for a person to be able to solve new problems in the 21st century (Brookhart, 2010; Moseley et al., 2005; Thompson, 2008). Higher Order Thinking Skills also plays an important role in applying, connecting, or manipulating prior knowledge to effectively solve new problems 9Thomas & Thorne, 2009). In the revised Bloom's taxonomy, Higher Order Thinking Skills is defined as an incision between the three cognitive dimension top levels of capacity (analysis, evaluation, creation) and three level of knowledge dimension (conceptual, procedural, metacognitive) (Anderson & Krathwohl, 2001, Thompson, 2008). Therefore, Higher Order Thinking Skills is assessed using tasks, including the analysis, assessment, and development of metacognition or conceptual and procedural information. This implies that it is essential to familiarize students with Higher Order Thinking Skills activities to help them get ready to solve new problems, acclimatize themselves to a new atmosphere, and make decisions about a specific problem.

Litbang.kemendikbud.go.id explained that Trends in the International Mathematics and Science Study (TIMSS) and the International Student Assessment Program (PISA) have demonstrated, however, that the majority of Indonesian high school students continue to perform below satisfactory levels, particularly in cognitively demanding tasks. Over the past ten years, the survey results from TIMSS and PISA demonstrated that Indonesian HOTS-related students lacked adequate skills. For instance, in 2012, Indonesia ranked just 71 out of 72 nations in PISA. In 2015, Indonesia ranked 64 out of 72 countries. In contrast, Indonesia only ranked 40 out of 42 countries in 2011 at TIMSS. In 2015, Indonesia ranked 45th out of 48 states. Indonesia ranked 75 out of 80 countries in 2018, particularly in terms of reading proficiency. This data demonstrated that Indonesian students lack writing and receptive skills, such as reading comprehension, logical thinking, and problem-solving abilities. The majority of Indonesian students are still at the Lower Order Thinking proficiency level. This suggests that Indonesian students only have recall, reiteration, and recitation thinking skills.

One of the main objectives of the assessment process is to measure or assess the learning outcomes of students, both in the form of quantitative (numeric) and qualitative data. Both types of data provide concrete information regarding the extent of students' achievements in their learning process. In the context of assessment, quantitative (numeric) data is obtained through measurement using tests as a tool for data collection. Measurement, as a part of the assessment process, is focused on gathering information or data related to the competencies of students, especially in the educational context.

In reality, many teachers encounter difficulties in assessing students, especially in the realm of HOTS. These skills encompass analysis, synthesis, evaluation, and the application of knowledge in real-world situations. Teachers often find it challenging to develop assessment instruments that can effectively measure students' HOTS abilities accurately and objectively.

One of the primary issues faced by teachers is their inability to create effective HOTS assessment instruments. This can be linked to teachers' limited understanding in distinguishing indicators between Higher Order Thinking Skills (HOTS) and Lower Order Thinking Skills (LOTS). The unclear distinction between these two types of thinking skills can hinder teachers in designing questions that adequately measure HOTS abilities. At times, teachers struggle to identify concrete indicators of HOTS, resulting in assessment instruments that are more focused on lower cognitive aspects. In this context, measuring Lower Order Thinking Skills may seem easier, while assessing Higher Order Thinking Skills becomes a challenging task.

These constraints create an imbalance in assessments, where the true potential of students in developing high-order thinking skills cannot be accurately gauged. Therefore, there is a need for further efforts to assist teachers in overcoming these challenges and developing assessment instruments that can reflect comprehensive student abilities, including HOTS capabilities.

The explanation above is supported by the research from I Wayan Widana that 1) HOTS assessments are questions or tasks that have Reviews These characteristics: to assess students abilities to analyze, Evaluate, and create based on contextual issues, and are not routine (not familiar); 2) steps compose HOTS items are: a) analyze the KD that can be created HOTS items, b) arrange the blueprint of HOTS items, c) write down the items on the card matter, d) Determine the answer key (multiple choice questions form) or arrange rubric / scoring guidelines (essay form), e) perform qualitative analysis, and f) perform quantitative analysis; 3) the advantage of HOTS assessments are: a) Increase the stundents motivation to learn and b) improve learning outcomes. and f) perform quantitative analysis.

The concept of the research referred to the explanation above, the researcher interesting to conduct this research for analysis of the teachers' assessment model in assessing students' by using quantitative research. Based on the explanation, the researcher are interested in conducting research with the tittle "EFL Teachers' Assessment Model of Higher Order Thinking Skills".

## METHODOLOGY

The research design was quantitative research with content analysis approach, Quantitative research, in essence, involves the collection and analysis of numerical data to draw statistical inferences and generalize findings. Content analysis in this research focused on the teacher assessment in English subject.

The instrument in this research was document, the document consisted in EFL teachers' assessment model and the relevance with the principle of HOTS taken from the teacher. Total of the document were 3 documents.

**Table 1.** Indicator of HOTS and LOTS

| No | Indicator | | Verb of Indicator |
|---|---|---|---|
| | | **LOWS** | |
| 1 | C1 | | Remember |
| 2 | C2 | | Understanding |
| 3 | C3 | | Application |
| 4 | C4 | | Analysed |
| 5 | C5 | **HOTS** | Evaluate |
| 6 | C6 | | Creation |

## RESULTS

### The assessment model develop by EFL teachers in assessing Higher Order Thinking Skills

Multiple-choice questions are a type of assessment where test-takers are presented with a question and a set of possible answers. The test-taker must choose the correct answer from the provided options. Online multiple-choice assessments involve presenting participants with a set of questions, each accompanied by a list of possible answers. Participants are then required to choose the correct answer or answers from the provided options. This format is widely used in online education. Essay tests require test to construct their responses in a more open-ended format. Participants are given a prompt or question and are expected to write a detailed, coherent essay in response. This format allows for a more in-depth evaluation of the test understanding, critical thinking skills, and ability to articulate ideas. Fill in the blank tests were a form of assessment that involves providing statements or sentences with one or more blanks,

and students are required to fill in the missing information. This type of test is particularly useful for evaluating a student's ability to recall specific facts, details, or vocabulary within a given context.

**The relevance of assessment and the indicator of Higher Order Thinking Skills**

**First assessment**

The assessment provided covers a range of HOTS showed above, the accumulation number of result explained that number 1, 2, 5, 7, 8,9, 11, 15, 16,17, 18, 19, 20 were categorized as not relevant to the HOTS indicators. And number 1 to 10 were categorized as relevant for essay test and number 3, 4, 6, 10, 13, 14 were relevant

**Second assessment**

According to the table above, the result analysis can be explained that, the relevant indicator with HOTS were 4, 5, 6, 7, 8, 9, 10, 20, and essay test number 1-10. While not relevant test were 1, 2, 3, 14, 15, 16, 17, 18, 19.

**Third assessment**

According to the assessment result above, number 1 to 20 were relevant to the indicator HOTS including of C1, C2, C3, C4, C5 and C6.

**Tabel 2.** Accumulation of relevance HOTS can be showed below:

| No | Type of Test | Result | | Cet |
|---|---|---|---|---|
| | | Relevance | Not Relevance | |
| 1 | First Assessment | 38% | 62% | Not Relevance |
| 2 | Second Assessment | 53% | 47% | Relevance |
| 3 | Third Assessment | 100% | 0% | Relevance |

According to the result analysis showed that first assessment result for 38% categorized as not relevance, 62% categorized as relevance. It sum that first assessment not relevance. And the second assessment showed 53% for relevance, and 47% for not relevance. It sum that second assessment categorized as relevance. The third assessment showed 100% for relevance.

**DISCUSSION**

**Assessment model develop by EFL teachers' to assess students' Higher Order Thinking Skills**.

Research discussion about assessment model develop by EFL teachers' to assess students' Higher Order Thinking Skills regarding to the result data stated that analysis of the three assessments conducted by English teachers at SMK Negeri 3 Parepare reveal insightful information about the nature of each assessment and its alignment with assessment criteria.

The assessment model developed by EFL (English as a Foreign Language) teachers to evaluate students' Higher Order Thinking Skills (HOTS) integrates a combination of diverse question formats, including multiple choice, essay, and fill-in the blank. This holistic approach is designed to comprehensively measure students' cognitive abilities in the context of English language learning.

The multiple choice component allows for the assessment of foundational knowledge and understanding, ensuring that students can recall facts and comprehend essential concepts. The essay component, on the other hand, serves as a robust tool for evaluating students' analytical and critical thinking skills. It prompts them to articulate their thoughts coherently, synthesize information, and apply their knowledge to broader contexts.

The assessment regarding to fill in the blank questions target specific vocabulary and content mastery, assessing students' recall and application skills in a more focused manner. By incorporating all these question formats, the EFL teachers' assessment model creates a balanced and nuanced evaluation framework that aligns with the principles of Bloom's Taxonomy. This model not only measures the depth of students' language proficiency but also ensures that HOTS are an integral part of the assessment process, fostering a more comprehensive understanding of students' cognitive abilities in the context of English language acquisition.

Discussion for the first assessment focused on the emotional experience of meeting an idol, the analysis indicates a clear emphasis on objective assessment. The use of multiple choice questions allows for a standardized evaluation of individual reactions, ensuring clarity and precision in assessing specific emotions felt during the encounter. Objective assessment is well-suited for this scenario, providing a structured and verifiable approach to measure factual knowledge and specific reactions in a quantifiable manner. However, the analysis suggests that subjective assessment is not relevant in this context, as it does not align with the

indicators of rubric subjective assessment.

According to the findings which explained about the assessment model referred to multiple-choice assessment model is a widely utilized method in educational settings that involves presenting participants with a question or prompt and providing a set of predetermined options from which they must choose the correct answer. The benefits of the multiple-choice format are multifaceted and contribute to its popularity in various assessment contexts. One of the primary advantages of multiple choice assessments is their efficiency in terms of administration and grading. These assessments can be quickly administered to large groups of participants, saving time and resources. Moreover, the scoring process is expedited as it can be automated, providing rapid feedback to both educators and learners. Multiple choice format promotes fairness in assessment. Since participants choose from a set of predetermined options, the likelihood of guessing the correct answer is reduced. This helps ensure that the assessment results reflect actual understanding rather than chance.

Another findings explained that essay assessments are written evaluations that require students to construct detailed responses to prompts or questions. These assessments go beyond simple recall and demand a deeper understanding of the subject matter. Essay questions are often open-ended, allowing students to express their thoughts, analyse information critically, and demonstrate their ability to articulate ideas. These assessments are particularly effective in evaluating higher-order thinking skills such as analysis, synthesis, and application. Essay assessments offer students the opportunity to showcase their comprehensive understanding of a topic, use evidence to support their arguments, and develop a coherent and well-structured response.

Fill in the blank assessments involve providing statements or sentences with one or more blanks, and students are required to fill in the missing information. This type of assessment is effective for evaluating students' recall of specific facts, details, or vocabulary within a given context. Fill-in-the-blank questions are more focused and direct compared to essays, targeting precise knowledge or information. According to all explanation above, the using of various assessments is crucial in education as it provides a more comprehensive and accurate understanding of students' knowledge, skills, and abilities. Employing a diverse range of assessment methods allows educators to gather multifaceted insights into different aspects of student learning.

**The Relevance of assessment and the principle of Higher Order Thinking.**

Discussion about relevance of assessment and the principle of higher order thinking it stated that relevance of assessments and the principles of Higher Order Thinking Skills (HOTS) are crucial aspects in evaluating the effectiveness of educational practices. The investigation into three assessments conducted by English teachers at SMK Negeri 3 Parepare offers valuable insights into how these assessments align with both Lower-Order Thinking Skills (LOTS) and Higher-Order Thinking Skills (HOTS).

The relevance of assessments and the integration of Higher-Order Thinking Skills (HOTS) are pivotal components in evaluating the effectiveness of educational practices. The analysis of three assessments conducted by English teachers at SMK Negeri 3 Parepare sheds light on the alignment of these assessments with both Lower-Order Thinking Skills (LOTS) and HOTS. The accumulated points across Bloom's Taxonomy levels showcase a predominant emphasis on foundational skills, with C1 (Remember) and C2 (Understand) receiving. This underscores a strong focus on recalling facts and comprehending concepts, crucial for building a knowledge base. However, the distribution reveals a comparatively lower emphasis on assessments targeting HOTS.

According to the discussion that indicator of C3 (Apply) garners some point, indicating a minimal focus on assessing students' ability to apply knowledge in novel situations. C4 (Analyse) receives some points, signifying a moderate emphasis on tasks involving the breakdown and examination of information. Additionally, C5 (Synthesize) and C6 (Evaluate) receive also some points, respectively, suggesting a lower priority for assessments involving creating new concepts or making judgments based on criteria. In essence, the analysis underscores an opportunity to diversify assessment strategies by allocating more points to HOTS, fostering a more comprehensive evaluation of students' cognitive skills and promoting a balanced development of both foundational and higher-order thinking abilities. This strategic adjustment aligns with the broader goal of cultivating well rounded learners capable of applying knowledge in diverse contexts.

The assessment practices at SMK 3 Parepare reveal a predominant emphasis on Bloom's Taxonomy levels C1 (Remember), C2 (Understand), and C4 (Analyse). This concentration underscores a strategic focus on foundational cognitive skills, including the recall of facts, comprehension of concepts, and the ability to analyze information.

The assessment model employed by educators appears to prioritize the establishment of a strong knowledge base and fundamental understanding among students. By allocating significant points to C1 and C2, the assessments ensure that students can recall essential information and comprehend underlying concepts, which are foundational elements for further cognitive development. The inclusion of C4, emphasizing analysis, indicates an intention to assess students' capacity to break down information and

examine its components. While these lower to mid-level cognitive skills are crucial for building a solid foundation.

There is an opportunity to enhance the assessment strategy by incorporating more emphasis on Higher-Order Thinking Skills (HOTS), such as application (C3), synthesis (C5), and evaluation (C6). This shift could provide a more comprehensive evaluation of students' cognitive abilities, fostering a balanced and well-rounded approach to learning at SMK 3 Parepare.

## CONCLUSION

The conclusion in this research about Assesment Model of HOTS at SMK Negeri 3 Parepare, the conclusion can be explained below:

Assessment model develop by EFL teachers' to assess students' Higher Order Thinking Skills showed in various assessment with multiple choice while another assessment model was online multiple choice by integrating test in online text and another model were essay and fill the blank which regarding to the Higher Order Thinking evaluation test.

The Relevance of assessment and the principle of Higher Order Thinking showed first assessment scored 62% which categorized as not relevance. Second assessment scored 53% which categorized as relevance, third assessment showed scored 100% which categorized as relevance

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