The EFL Teachers' Barriers in Designing High Order Thinking Skills (HOTS) Test

Puput Anipon[1]*, Yenni Rozimela[2]

[1] English Education Department, Universitas Negeri Padang
[2] English Education Department, Universitas Negeri Padang
*Corresponding author. Email: puputanipon5@gmail.com

ABSTRACT
Rapid changes in global education influence aspects of education, especially in Indonesia, where high-order thinking skills (HOTS) have become a current educational issue. As we know, in Indonesia, the 2013 curriculum is concerned with high-order thinking skills (HOTS) because it provides students with critical thinking. The goal of this descriptive study is to identify the barriers that EFL teachers face when designing high-order thinking skills (HOTS) exercises at the senior high school level. In this case, the researcher is concerned about the barriers teachers face in designing their exercises for assessment. This study used the qualitative method and made use of the stimulated interview to collect the data. The research participant is an EFL teacher at a senior high school. The finding describes some of the factors that teachers consider when designing high-order thinking skills (HOTS) exercises, specifically the teacher, students, and support aspects. Hence the conclusion that teachers must upgrade themselves with the new HOTS test that attracts students and improves their concept and understanding of HOTS tests. Then the government must support teachers' experience and knowledge by providing more training and socialization.
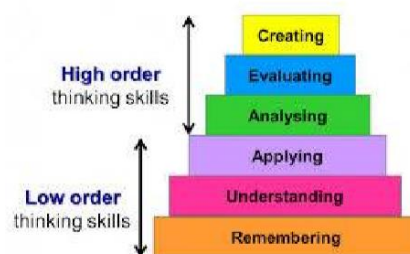
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1. INTRODUCTION

The 21st-century global competition encourages people to develop and master some skills and competencies to compete with others. Students are encouraged to develop competency and skills for the job market and real life, particularly in the education world. The government to master that competency in our students, especially senior high school students, realizes that necessity. Because they will face real competition and real life soon. The role by the ministry of education stated that with the achievement of proficiency and competency, the students provide for the development of high-order thinking skills (HOTS) [1].

The HOTS topic we will always discuss is the cognitive domain of Bloom's Taxonomy, revised by his student [2]. The thinking skills of the cognitive domain are divided into six levels: knowledge, comprehension, application, analysis, evaluation, and creation [2]. Then Mishra & Kotecha, divide Bloom's

taxonomy into two levels: the first is lower order thinking skills (LOTS), which include remembering, understanding, and applying [3]. The second level is high order thinking skills (HOTS), which are analyzing, evaluating, and creating. According to them, the level of Bloom's Taxonomy show in figure 1 below:

Figure 1: Blooms' revised taxonomy and HOTS (Mishra & Kotecha 2016)

Moreover, high-order thinking skills (HOTS) are one basic competence that provides 21st-century teaching and learning, like critical thinking, creativity,

collaboration, and communication [1]. Thus, the government is concerned about students' competency and critical thinking. Since 2016, the government has included high-order thinking skills (HOTS) in the national assessment to prove that it is serious about improving students' critical thinking. In line with another finding the learners must master knowledge and competence and practice it in real-world conditions [4]. Critical thinking skills are a cognitive process that uses knowledge to encourage competency in comprehending the problem logically, intellective thinking skills, and the competency to argue that concern when making a decision

High-order thinking skills (HOTS) are classified into three categories: first, analyzing, which is the process of dividing the teaching material into several parts and determining how each part and others relate to each other in structure and objective form [2],[4]. The three processes are differentiating, organizing, and attributing. Second, evaluating is the process of analyzing based on characteristics and roles, or standards, by checking or observing. The last part, "creating," means applying and putting in all elements as one and creating a new brand or product. Those elements of high-order thinking skills (HOTS) are implemented by the teacher in a learning activity. The adoption of high-order thinking skills (HOTS) trends concern students' critical thinking [5]. Thus, almost every country nowadays is more concerned with the implementation of high-order thinking skills (HOTS) in each teaching-learning activity. Furthermore, all of this is part of the government's strategy and effort to prepare our students for consideration and critical thinking competency.

The teaching-learning activities cannot be separated from the teacher's role in the classroom. The teacher is a leader who guides students through a teaching-learning activity that affects their result [4]. The previous researcher suggest teachers have to improve some methods or strategies that provide learning activities to obtain good results or outcomes [6]. The teachers' have to choose and design an interesting learning strategy to increase learners' attention or motivation [7]. But another ideas for high order thinking skills (HOTS) questions or exercise items that are very suggestive in several models of classroom assessment [8].

For comparison, a study from Malaysia found that the high-order thinking skills (HOTS) practice in teaching-learning is a little bit narrow and then

affected by some aspects such as learners', pedagogical, and institution factors [5]. The implementation of HOTS is not only the teacher's responsibility but also on all sides, including school institutions and the government as a role-maker. In other research found that teachers have a significant role in creating situations and simulations that encourage students to engage in critical thinking [9]. On the other hand, teachers play an important role but still need support from institutions and students to reach their educational goals.

Fact EFL teachers' in Indonesia based on a study. The next research found that the teachers still do not believe in developing HOTS exercises because their comprehension of high-order thinking skills (HOTS) exercises is low [10]. We can conclude that in the implementation of high-order thinking skills (HOTS) by the teacher in Indonesia, there are some teachers' problems and challenges in developing or designing HOTS exercises. Based on that issue, the researcher wishes to identify the challenges that EFL teachers face when designing high-order thinking skills (HOTS) exercises.

2. LITERATURE REVIEW

2.1 High order thinking skills (HOTS)

Higher order thinking skills (HOTS) is one of the familiar terms recently. This term based on Bloom's taxonomy. They illustrates the elements of higher order thinking skill that has six facets in the cognitive domain; knowledge, comprehension, application, analysis, synthesis, and last stage evaluation [11]. These stages will result in the dimension of thinking involving critical thinking, problem solving, decision-making, and metacognition.

Higher-order thinking skills (HOTS) is a term that has recently become more popular. This term is based on Bloom's taxonomy, illustrate the elements of higher-order thinking skills that have six facets in the cognitive domain: knowledge, comprehension, application, analysis, synthesis, and final stage evaluation [10]. These stages will result in a dimension of thinking involving critical thinking, problem - solving, decision - making, and metacognition.

High-order thinking skills (HOTS) encompass all intellectual activity other than information recall. Higher-order thinking involves the use of varied

thinking patterns in complex situations [12]. Higher-order thinking is reliant on a person's ability to implement, develop, and strengthen knowledge within the context of ideas. HOTS is characterized by a high level of thinking activity that involves the ability to communicate more ideas in a new situation, recognize the issue logically and innovatively, make the argument critically, and draw a conclusion [4].

2.2. High order thinking skills (HOTS) test

The HOTS test is related to Bloom's Taxonomy in that a test includes six elements in a question or test given by the teacher, namely: remembering, understanding, applying, analyzing, evaluating, and creating. HOTS is strongly related to authentic assessment [10]. Authentic assessment emphasizes students' skills and their ability to perform in actual situations. Authentic assessment requires that students use a mix of knowledge, abilities, problem-solving skills, and enthusiasm in real-life situations.

Thus, according to Aitken and Punger, the function of authentic assessment in the class could be improved while improving learners' perceptions that education involves not only abilities but also critical thinking and skill acquisition. The test, exercise, or situation associated with it is authentic and relates to a real-life situation. Activities in authentic assessments are skillful and cognitively complex. Learners take part in authentic assessments by being provided with opportunities to rationalize and protect their response or component. Standardized testing is a type of evaluation [12].

3. METHOD

The researcher applied a qualitative research design, taking on a descriptive study. This study used descriptive analysis because it reflected and experienced moments in real-life situations as a real condition. The writer used qualitative research because, first, it focuses on teachers' barriers. Second, the data collected by the stimulated interview refer to Tyas et al. question items [13]. The participant is a senior high school EFL teacher. She has been a teacher for over ten years. The writer interviewed the teacher and used a personal approach to ask in-depth questions about the teachers' barriers to designing HOTS exercises to collect data for this study. In the interview, the researcher prepared some questions and developed relevant questions about the teachers' barriers in designing HOTS exercises. Then the writer recorded the interview process.

4.   FINDING AN DISCUSSION

The data presented is based on the problem and the data collection instruments. Teachers face some challenges when developing high-order thinking skill (HOTS) tests. The information came from stimulated interviews with EFL teachers about their challenges in developing HOTS tests. The findings highlighted one aspect of EFL teachers' challenges in developing high order thinking skills (HOTS).

4.1 Teachers' aspect

In designing high-order thinking skills (HOTS), exercise or test the teacher. In designing the HOTS test, the researcher is looking for teacher-aspect barriers. First, the teacher's perception is a crucial and meaningful point in designing the HOTS test. Perception is the basic knowledge that must be acquired by a teacher first. As stated by the teacher:

> "However, the teacher must know the student's thinking ability first. Whether the exercises or tests using HOTS have been able to be completed or finished by students, then they must be suitable for their level."

A good and well-developed perception of designing high-order thinking skills (HOTS) tests is ideal for a teacher. In reality, some teachers still do not have enough knowledge about how to design HOTS tests. They still lack the concepts and comprehension of HOTS. In line with the expert finding it was acknowledged that the instructors have addressed the significance, transparency, complexity, and excellence of HOTS as an initiative both moderately and adequately [14].

Second, teachers face challenges when creating HOTS tests that only cover levels C4 and C5 (analyzing and evaluating). The teacher uses a rare design in C6 (creating) because the teacher considers the level and students' ability.

> "Evenly, I just focus on analyzing and evaluating, and I decided that it was appropriate with the students' ability and level."

Based on Bloom's taxonomy, the element of high-order thinking skills (HOTS) contains C4, C5, and C6 (analyzing, evaluating, and creating). This condition is not eligible at this level of HOTS. The student's ability and level can be determined by designing simple exercises, but they cannot be required by the teacher.

Encouraging students to be more creative and critical in a way that enables learners to fully comprehend the knowledge's contents could help them find data, examine it, and then use their critical and creative thinking to react to inquiries and solve problems [15].

4.2 Student aspect

The teacher barriers in designing HOT tests from the students' perspective were found by the researcher. Most teachers' barriers are students' level and competence in mastering English. It makes deciding on the design of HOTS tests difficult for teachers. A statement by the teacher:

> *"The level and competence of students in mastering English can be said to be a very influential barrier."*

Competency students in English have an important role, vocabulary mastery and understanding of the material that has been taught, which is a problem, especially for EFL students. For EFL students, mastering the language has become their main obstacle [4]. Students then struggled to comprehend the topics they were learning.

The next barrier from the students' aspect is that the teacher has difficulties with the students' understanding and their comprehension of high-order thinking skills. In the interview result, the teacher said:

> *"In my opinion, understanding of HOTS is already adequate, but the students may not yet understand it well."*

Based on the researcher's question, the teacher has a barrier to students' comprehension and understanding of high-order thinking skills (HOTS). The teacher finds it difficult to guide the student in explaining and constructing the students' knowledge about HOTS. The students almost thought that the HOTS test was a difficult test without any purpose. The teachers have an important role as guides in the classroom and then explain the true purposes of the HOTS test. It is necessary because the students have a perception and knowledge about HOTS properly.

4.3 Supported aspect

The aspect that is important in the teacher barrier in designing the HOTS test is the supported aspect. The researcher found some information about teacher barriers in designing HOTS tests. First, teacher motivation, particularly for teachers with other responsibilities and work, will make designing the HOTS test more difficult and time-consuming:

> *"Motivating in designing HOTS test, it too heavy for the teacher that has another responsibility and work"*

Motivating is an aspect that teachers want but that reality cannot provide because of certain cases and problems. Teachers, as human beings, also have limited management of their responsibilities. It is unexpected but plays an important role in designing the HOTS test. Another study suggest that in reality, to enhance their awareness and motivation to learn and to create HOTS tests, teachers must also receive assistance from their environment in addition to increasing their own personal motivation [13]. Since there would be more of a result when teachers are motivated both inside and externally.

Second, teachers have limited training provided by the government. The teacher needs more knowledge and experience from another source to develop and design a good HOTS test. As the teacher stated:

> *"Yes, I think so too. For now, there is still a lack of training, socialization, or workshops on the HOTS concept, even though there is only one time".*

The current workshops or training are insufficient to support them improve their knowledge and comprehension of HOTS, and in order to get an accurate idea of HOTS, the information, and understanding of HOTS are required to be shared through workshops or training. The previous research claim that failure to grasp higher order thinking abilities and failure to create and implement efficient lesson plans during teaching and learning sessions are the results of improper comprehension and knowledge of HOTS [13].

5. CONCLUSION

Based on the finding above, the researcher concluded that the most teacher barriers in designing HOTS tests are student competency and ability in English. It looks at the students' aspect as EFL learners. The background knowledge of students about English lack and limited. Then make it difficult for the teacher to decide when a high-order thinking (HOT) test should be designed. The next barrier in designing HOTS tests based on the teacher aspect is teacher

perception and understanding of designing HOTS tests. The teacher still has a low concept of constructing the HOTS test and then makes the mistake of not putting in all elements of HOTS, namely C4, C5, and C6 (analyzing, evaluating, and constructing). The teacher just put in the analysis and evaluation of the HOTS test. The misunderstanding about the concept of the HOTS test makes the purpose of HOTS far away from the right line. Last supported aspect that be barriers to designing the HOTS test. The teacher has a problem motivating students while they have other responsibilities and work. The barriers have an important role because they are the base for constructing the HOTS test. Then the training and socialization about HOTS are tested. The government did not provide another way to give teachers experience and new sources for designing HOTS tests.

The researcher suggests that the teacher more intensively attracts student attention in designing the HOTS test and then is more concerned about the element that must be contained in the HOTS test itself. Schools or institutions must give teachers space and make the teacher's responsibility more clear. For the government to be concerned, teachers must be trained and socialized about the HOTS test design.

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