



Challenges Teachers Face in Applying High Order Thinking Skills

A Case Study at Madani Super Camp English Course

Rudi Haryana Hidayat^(✉) and Yuni Budi Lestari

English Department, University of Mataram, Mataram, Indonesia
rudiharyanahidayat@gmail.com

Abstract. This study aims to examine what challenges and opportunities English teachers face in applying High Order Thinking Skills (HOTS). Employing a qualitative method, this study collected the data through interviews with English teachers and document study. This study was conducted at Madani Super Camp English Course, West Nusa Tenggara. Four English teachers teaching Senior High School (SMA) level students in the course were taken purposively as the participants of the study. The teachers were interviewed in a semi-structured mode to obtain information on the challenges they faced and opportunities they had in applying HOTS in teaching the English language. Additionally, the documents were teaching materials for SMA. The data were analyzed using qualitative content analysis. The findings show that there are a number of challenges the teachers face due to their misconceptions of HOTS, limited capacity in designing HOTS-based materials and activities, and students' dependent learning styles.

Keywords: Challenges · Opportunities · High Order Thinking Skills

1 Introduction

While the 21st century offers opportunities to create borderless experiences of learning and working with people across the globe, it suggests skills that students critically need to succeed in facing the increasingly interconnected and complex world. The 21st-century skills came to be widely known as 4Cs which involve critical thinking and creativity. Integrating those skills into the curriculum has been the strategic action taken by most countries around the world including Indonesia. To develop these skills, students need to be engaged in higher-order thinking skills [1]. Some studies have shown that the application of HOTS has been seen as effective in increasing students' achievement [2, 3]. Higher-order thinking skills facilitate students to remember and understand, materials during the learning process [4].

A great illustration of the different levels of high-order thinking such as analyzing, synthesizing, and evaluating [5]. Revising Bloom's taxonomy, however, provide different components of higher-order thinking skills that involve analyzing, evaluating, and creating, arguing that creative thinking is inclusive of some levels of evaluation [4]. Providing a hierarchy of thinking, both versions of taxonomy can be very helpful

for teachers in developing performance within certain approaches to promote students' higher-order thinking skills.

One approach which can be used to develop HOTS is problem-based learning. In this learning model students are allowed to analyze and evaluate problems, to generate ideas in order to find solutions [6]. As this model uses problem-solving, it can enhance critical thinking [7]. Not only can problem-based learning enhance critical thinking, but it can also promote communication and collaboration among students since they are usually assigned to work in pairs or groups in evaluating problems and finding solutions to the problems [6]. Project-based learning is another useful approach to promoting HOTS. This learning model provides students with an opportunity to conduct a thorough investigation of the real-world problem which can be done individually or in groups over an extended period of time to create a product or a presentation. From those activities, it can be seen that domains of HOTS (i.e., analyzing, evaluating, and creating) are involved in the project-based learning model. Being rigorous in nature, the activities in the project-based learning could also develop critical thinking, creativity, collaboration, and communication. Based on the theoretical support above, problem-based and project-based learning have been widely recommended to be used in schools and education sectors.

In Indonesia, under the new curriculum (K-13), teachers are highly recommended to use problem-based and project-based learning models in addition to the scientific approach to promoting students' HOTS. Studies on the implementation of HOTS in English language teaching and learning in Indonesia still indicated teachers' limited knowledge of the concept of HOTS, students' low cognitive ability, and students' dependence on teachers [8]. Teachers were also unskilled in designing HOTS assignments [9]. So far, many studies on challenges in the implementation of HOTS in Indonesia have been conducted in formal schools. None, if any, have been carried out in non-formal education institutions. Though not under the direct control of the Ministry of Education and culture, non-formal education plays an important role in accommodating the national education policy. Therefore, this study was conducted to discover the challenges teachers face in applying higher-order thinking skills in a private English course in Lombok, West Nusa Tenggara, in order to provide more illustrations of issues of the implementation of HOTS.

2 Methods

This study was conducted employing a qualitative approach. The purpose of this research is to provide a detailed description of the challenges that the teachers face in implementing HOTS in teaching English in Lombok, West Nusa Tenggara. Merriam (1998, p. 19) mentions that a qualitative approach is useful to provide a richer description of "one unit" and "bound system", such as learning English in the classroom. To gather rich data, this study employed semi-structured interviews. Open-ended questions were formulated to collect relevant data pertaining to challenges faced by teachers in applying HOTS. This research was conducted from September to November 2021. The research participants were taken purposively, 4 senior high school teachers who taught English in a private English course. Two of the teachers (T1 and T2) had Bachelor's degrees in

English Education, while the other two (T3 and T3) earned master's degrees in Education from a local university. They were interviewed to obtain the data and the interviews were audio-recorded. The data were analyzed using content analysis which started with coding words, themes, and concepts within the textual data, and finished with analyzing them.

3 Results and Discussion

The data was reflected from individual teachers' perceptions of HOTS and using HOTS-based English language teaching and learning. Based on the analysis of the findings, it is revealed that the major challenges faced by teachers in implementing HOTS involve teachers' misconceptions of HOTS, limited teachers' pedagogical skills of HOTS, and students' dependent learning style.

3.1 Teachers' Misconceptions of HOTS

Teachers' understanding of the concepts of HOTS would greatly contribute to successful HOTS-based teaching and learning. The analysis of the findings, however, found that a challenge they faced in employing HOTS is their own misconceptions about certain components of HOTS. When asked about the components most of the teachers mentioned only a few HOTS subskills. T1 and T2 understand HOTS as critical thinking, while T3 and T4 maintained HOTS as critical thinking and logical reasoning. None of them mentioned other subskills such as creative thinking, collaboration, and communication. The misconceptions were clear when all of them were only familiar with analyzing domain. All of the teachers mentioned that analyzing is a cognitive level that shows HOTS. T4 confirmed this by explaining that critical thinking is shown by students' ability in analyzing problems or data. She emphasized this by giving examples of what she sometimes did during teaching in the classroom. She said "I sometimes give students a text containing many grammatically incorrect sentences and asked the students to find out what's wrong".

While it is true that analyzing is a component of HOTS in both [5] and [4] taxonomies, all of the teachers are not familiar with the other components of HOTS such as evaluating and creating in Anderson & Krathwol's taxonomy and synthesizing and evaluating in Bloom's taxonomy. When asked about these HOTS components, they showed uncertainty about this by frowning and shaking their heads. In addition, T2 and T3 mentioned that the application belonged to HOTS. From the findings, it can be seen that the teachers did not have an adequate understanding of the concepts of HOTS. It would be hard for teachers to teach something that they do not understand. Thus, the possible consequence of not having sufficient knowledge of HOTS is the incapability to design HOTS-based learning material and activities, which is another challenge found in this study.

3.2 Limited Teachers' Capacity

Another challenge hindering the teachers in integrating HOTS in their classrooms involved limited teachers' competencies in developing learning material and activities

oriented to HOTS. Based on the interview, most of the teachers' faced challenges on how to develop learning materials for HOTS. Most of the teachers admitted that they mostly used the readily available teaching modules provided by the private English course manager. These materials mostly comprised of grammar, vocabulary, and reading exercises. T4 confirmed this by saying "I think I am the one here who has used more additional materials than other teachers. I think students need more grammar and vocabulary exercises to support them in understanding different texts". T3 added "additional reading materials are also needed. I need to help the students to be successful in the school exams. Reading texts are dominant in the school exams." This suggests that the materials they developed were mostly for accommodating lower levels of thinking skills involving understanding, remembering, and applying. The additional materials they used also indicated that teaching and learning in the private course were still very much exam-oriented. Since most of the school exams only contain components of lower-order thinking skills [7], the teachers were demotivated to develop English material containing HOTS elements.

When material development is oriented to the school exam, teachers would generally use teacher-centered teaching and learning activities. This also occurred in the private course. Most of the teachers argued that while they were given enough room to develop innovative learning activities, they would tend to use the ones provided in the modules. The reason for doing this is their lack of confidence in developing activities as what T1 said "the modules have a long time been used here in the course and I think there are no problems with the activities. They are quite useful in helping students to understand language points such as grammar, vocabulary, and reading. The teachers were lack of confidence to develop activities because they were little informed about designing interactive and communicative activities which could facilitate HOTS learning. This is evident when they were asked if they happened to develop activities using the problem-based and project-based models. All teachers similarly indicated that they had heard and read about both models of teaching, but they were not really confident in developing activities based on the two models. T3 said, "I once provided students with problem-based activities. I gave grammar exercises related to past tense. I asked them to work in a small group", a group of three, to find the answers. So, the problems are the exercises themselves, while the solution is the answers that they found from the discussion in the group. They looked happy to do the problem-solving activities. That's all I could do with problem-solving activities." From this teacher's explanation, it can be inferred that the teachers had inadequate knowledge of problem-based activities since exercises are not really problems. They were even confused about the difference between problem-based and project-based. The teachers all said that both models require students to do assignments or tasks or presentations which could be done individually or in groups. Because of their lack of understanding and experience using problem-based and project-based activities, developing activities containing HOTS became a great challenge for them. Their limited skills in developing HOTS-based learning materials and activities were also caused by their students' learning styles, which is another challenge the teachers face in implementing HOTS.

3.3 Student's Learning Style

The next challenge that the teachers face in applying HOTS deals with students' learning styles. Based on the interview, the students were quite dependent on teachers. All of the teachers said that most of the students were fond of being spoon-fed. T4 claimed that the students were unable to initiate and make decisions in learning. The teachers needed to consider their students' needs. T2 said "the students who come to private courses need us to help them with their learning problems at school. Most of them want us to reteach or review the materials that they do not really understand at school". In agreement with T2, T1 said "the students are happy with teachers' explanations. They rarely asked questions to teachers and to other students. So, it is difficult to ask them to participate in interactive speaking activities". This is because, as all the teachers maintain, the students had limited vocabulary and grammar knowledge. This finding, therefore, is in construe with [8] that students' low cognitive ability was also contributive to their lack of involvement in HOTS-driven learning activities. This does not mean, however, that HOTS cannot be applied to low-achieving students. Some studies e.g. [2, 3], indeed, proved that teaching and learning incorporating HOTS elements could improve both high-achieving and low-achieving students. Since students have different learning styles and cognitive levels of ability, learning materials and activities should be varied to accommodate those differences.

4 Conclusion and Suggestion

This study was carried out to explore the challenges teachers face in teaching English to senior high school students in a private English course. The data analysis showed that the challenges involved teachers' misconceptions of the concepts of HOTS, limited teachers' competencies in developing HOTS-based materials and activities, and students' dependence on teachers. To be able to face the challenges, some suggestions are proposed. Teachers need to participate more in pedagogical training programs which provide teachers with adequate practice to develop various teaching and learning models that can stimulate HOTS. Teachers also need to understand and identify the different learning styles and abilities of their students and use teaching approaches suitable for those differences. In doing so, teachers could help their students to have the 21st-century skills.

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