Higher Order Thinking Skills in EYL Classes of a Community Learning Center

Indah Kharisma[✉] and Yuni Budi Lestari

Department of English Education, University of Mataram, Mataram, Indonesia
indah.kharisma20@gmail.com

Abstract. High order thinking skills (HOTS), in Bloom's taxonomy, involving a cognitive process of analyzing, evaluating, and creating can be reflected in students' skills in creative thinking and problem-solving, collaborating, and communicating. Many have researched how HOTS-based teaching and learning activities in formal education settings, but not many studies on HOTS were conducted in informal education settings. This study aims to investigate the implementation of HOTS in English for Young Learners (EYL) Classes at a community learning center in West Nusa Tenggara. This is qualitative research and data were collected by interviewing five teachers as participants of the study who were selected purposively. Content analysis was used to analyze the data. The findings highlight that despite unfamiliarity with the term HOTS in Bloom's frame, the teachers have implemented HOTS-based English teaching and learning activities. The recommendation is that HOTS should be interpreted more flexibly depending on the context and convenience of the teachers so that it would not become counterproductive.

Keywords: High Order Thinking Skills (HOTS) · Blooms' taxonomy · EYL

1 Introduction

Many experts consider high-order thinking skills (HOTS) to be a basic survival ability in this dynamic and diverse society in which we live [1, 2]. For success in various aspects of life, HOTS skills are incredibly needed [3]. HOTS are a major indicator that determines the competence, effectiveness, and success of students. Accordingly, HOTS become an important element in any curriculum, including the EYL curriculum as HOTS assists the development of some important life skills in young learners [4]. However, the elements of higher-order thinking skills (HOTS) are often neglected and their existence is ignored at various levels of education [5]. Previous studies found that this happens because high-order thinking is often believed to be suitable only for high-performing students [6]. The latter findings revealed that while teachers perceived the relevance of HOTS for both lower and high- achievers, they had inadequate skills to integrate HOTS into their teaching practice [7]. In Indonesia, the integration of HOTS in classroom teaching has not been well supported by standardized tests which only assess content mastery

[8], requiring students to only understand and memorize concepts, discouraging higher levels of thinking.

High order thinking skills (HOTS), in Bloom's taxonomy [9], involve a cognitive process of analyzing, evaluating, and creating which can be reflected in students' skills in creative thinking and problem-solving, collaborating, and communicating. The taxonomy was then revised by [10] proposing another taxonomy more adaptive to the current needs of teachers in designing lessons that promote students' critical thinking skills. Therefore, in formal education settings, including in Indonesia teachers are now required to include elements of High Order Thinking Skills (HOTS) in their teaching. This means a teacher should design learning activities that develop a set of useful thinking skills (i.e., being critical, creative, problem-solving, collaborative, and communicative), popularly known as 21st-century skills.

While integrating HOTS is important to prepare students for the 21st century, it is not an easy task to raise people who can think critically. It requires a continual, consistent formation process, as well as environmental assistance. As a result, higher-order thinking skills do not just exist, but these abilities are developed and habituated since childhood. Childhood is a magical period when people's characters begin to emerge. [4] suggests the necessity of promoting children's critical thinking skills by helping children achieve key life skills that every child needs. She explains what children should be taught based on new findings. She further explains that as the natural curiosity of a child aids in the development of critical thinking skills, they must take in information, analyze it, and make decisions based on it. This type of active participation involves imagination and inquisitiveness. She also emphasizes that children's brains build up a library of sorts as they absorb new information and they must consider how the new information fits in with what they currently know, as well as whether it contradicts any previously held beliefs.

Teaching at a Community Learning Centre is not based on the idea that education should lead to standardization, but rather on the idea of accommodating a more fundamental learning principle, which accommodates students' learning zones. The students should study learning material that is appropriate for their learning abilities and topics that are relevant to their life challenges. The teacher's role as a facilitator in the classroom is to accommodate students' learning potential in the appropriate zone, which means that the instructor must teach students an achievement that is closest to the zone that can be reached independently [11, 12].

Many have researched how HOTS-based teaching and learning activities in formal education settings, but not many studies on HOTS were conducted in informal education settings (e.g., [13, 14]). Besides, the findings of previous studies suggest that HOTS is not easily applied at the primary school level as children cannot think abstractly and critically [15]. [15] also encourages the researchers to find out HOTS for English Young Learner (EYL) classes. For these reasons, it is considered essential to conduct research that aims to investigate the implementation of HOTS in EYL classes conducted in informal education settings to provide a new perspective on teaching HOTS to children.

2   Methods

This is a qualitative case study to investigate and comprehend teachers' perspectives on teaching HOTS and how they incorporate HOTS into their classrooms. This study was conducted in a community learning center located in Central Lombok, West Nusa Tenggara Indonesia. Five teachers were purposively selected as the participant in the study. The reason for the selection is because they are the ones with more than five years of teaching experience in the community learning center. This community learning center has four levels of EYL classes ranging from Crawlers, Walkers, Runners, and Flyers Each session meets twice a week, from 4 pm to 6 pm on Thursday and Saturday every week, with more than 80 students attending English sessions (before pandemic). There are no classes like those in conventional schools. They learn their materials beneath the shade of a tree or even in lush rice fields. A class can be held anywhere.

Data were collected through interviews with teachers as the participants and classroom observations conducted in 12 meeting sessions. The semi-structured interview was adopted as [16] pointed out that this model of the interview is particularly suitable to uncover and inquire into what is inside the mind of the participants. The teachers were asked a series of questions in these sections on their understanding of thinking skills, their attitudes toward teaching thinking skills in language classes, their practice of teaching thinking skills, and possible variables that influenced their decision-making. The interviews were tape-recorded and afterward transcribed. Each segment lasted for 60 to 90 min. The purpose was to elicit the participants' in-depth perspectives on their comprehension of thinking skills, their application of these skills, and the influential elements that influence how thinking skills are taught in foreign language instruction. Meanwhile, observations of the teaching and learning process were conducted to collect data on the way HOTS-based activities are implemented by the teachers. The data were then analyzed using content analysis and some part of the analyzed data was selected for illustration. Accordingly, some excerpts of interview transcripts are presented as examples.

3   Results and Discussions

Based on the research question, the findings and the discussion of this study deal with the implementation of HOT-based activities. Using Anderson and Krathwohl's taxonomy [10] as the framework of the study, this research found the implementation of HOTS-based learning activities which is then classified into the implementation of four aspects (i.e., being critical, creative, collaborative, and communicative) which will be explained below.

3.1   The Implementation of 'Being Critical'

The teachers in this study revealed a wide range of but fragmented understandings of thinking processes. The findings imply that teachers may have difficulty in defining and articulating thinking skills, as no teacher offered their definition when requested to do so.

However, all of them shared the same belief that memorization is a crucial part of learning. One of them confidently said "memorization is "basic and vital" in language learning, and higher-order thinking skills (such as reasoning, logic, intellect, and critical thinking) are dependent on memorization. Another teacher added that memorization is also linked to the linguistic ability of the student. Memorization, according to the teacher, is one approach to improving students' linguistic proficiency. "In general, the younger the students are, the lower their English levels are and the more they will be taught to memorize vocabulary", said another teacher. While the teachers placed a strong emphasis on memorization in their classrooms, it was observed that they integrate HOT elements into the language learning activities. For example, at the beginning of the lessons, the teachers asked a question like:

"Do you know…..?"

"Do you remember what we have learned?"

In while-activity, students were oftentimes asked to compare two things or more as indicated in the teacher's question "*Which one is more …… (beautiful)? Why?*".

Curiosity is fostered by asking the 'why?' question. This kind of question encourages students to investigate, ask questions, put their hypotheses to the test, evaluate the outcomes critically, and consider what things they could do differently. It was seen during the observation that most of the teachers often constructed open-ended inquiries that can spark the students' responses so that they can develop HOTS. They listened to the students' responses, then asked more questions, including questions that personalizing the students' contexts. In the interviews, the teachers admitted that those questions were used as a means of directly engaging students and ensuring that they keep on track. They were also used to know if the students had learned what they were expected to learn. Since the questions did not expect correct or wrong answers, but only students' thinking, which may be both challenging and enjoyable, these questions encouraged critical thinking.

3.2   The Implementation of 'Being Creative'

According to [10], creativity can be shown by an ability to generate a hypothesis to explain the observed phenomenon. From the observation, it was clear that the teachers oftentimes stimulate the students to create a hypothesis. To do this, the teachers asked the children to imagine something by asking them questions such as *What if ……? How do you know that?*".

Based on the interview, it was found that they had got into the habit of allowing students to create a hypothesis. In early childhood, a hypothesis is a situation in which children are asked to make a prediction. When reading a story, the teachers asked the students to guess how the story would conclude. They also asked about what would have happened if the ending had not been as the child had imagined.

3.3   The Implementation of 'Being Collaborative'

Being collaborative is another important skill that 21st-century students should have. Having this skill, students will gradually develop social communication and enhance

learners experiences. As collaboration involves active interactions between students, it will develop students' communicative competence because as [11] points out that it is through interaction that meaning is constructed. Providing students with activities allowing a lot of interactions between students are therefore crucial to promoting students' collaborative skill. The teachers in this study were found to stimulate students to be collaborative by providing quite many interactive language games, such as role-playing games and scavenger hunts. When asked the reason for using games, the teachers similarly answered that playing games are a means for children to learn, to work together to complete language tasks and learning can be done while playing. In addition to games, the teachers also assigned the students to do some simple science experiments such as leaf coloring. Despite its being simple, this game was observed to engage students to actively interact with other students and collaborate to complete the experiment tasks.

3.4   Implementation of 'Being Communicative'

Communication in the 21st century is characterized as more open and globalized communication. Students in this century, therefore, need to be equipped with sound communication skills necessary to be able to take some opportunities that international communication offers. In the interview, one teacher said *"The 21st century requires people to be able to communicate in English with both native and non-native speakers"*. Though sounds rather simplistic as the 21st century also requires more complex intercultural communication skills, the teacher's response shows that they realized the immediate need to use English in communication. When they were asked how they had helped their students with their 21st communication skill, three out of five teachers said they spent a significant amount of time helping students improve their linguistic skills, such as vocabulary and grammar, and then giving them enough opportunities to practice English for real-life situations in class.

However, the teachers admitted that it was quite challenging for the students to communicate in English. To cope with this the teachers provided logically structured activities. They provided several activities starting from memorizing vocabulary, followed by asking questions and giving answers to the questions related to topics of their interests. After that, the students were invited to play games to reinforce the vocabulary they had learned. Then, they were asked to interview their peers, do role-play, or interact using English words they had learned. Finally, the students were assigned to make their dialogues, letters, and even simple drama scripts in English.

The analysis of the data in this study revealed several key issues. Analyzing all the activities provided by the teachers, it is quite obvious that the teachers have, to some extent, implemented HOTS-based activities since the activities were potentially stimulating the students to develop thinking skills involving being critical, creative, collaborative, and communicative. While teaching thinking skills to children is different from teaching them to adults, children are still regarded as critical beings, but for them to become independent. To help them to achieve independent learning teachers, as [11] and [12] have suggested, should provide scaffolding for rather challenging material so that the child's skills and capacity will develop. From the activities provided by the participant teachers, it is quite clear that they applied Scaffolding to help students develop

their thinking skills even though they admitted that were unfamiliar with Bloom's taxonomy. In their teaching, they use questioning as well as student-centered and problem-based approaches. The biggest constraint, however, is the varying levels of students' capacity to grasp the subject, as well as the class size. Constraints must be addressed to guarantee smooth progress. This can be accomplished pedagogically by improving teachers' knowledge, abilities, and attitudes, as well as providing additional activities to high-achieving students. Hence, in-service training programs should be planned.

4   Conclusion and Suggestions

Based on the results of the study, it can be concluded that the teachers have implemented HOTS-based language learning activities. Even though the teachers are not familiar with the term HOTS based on Bloom's Taxonomy, they were able to provide HOTS-based EYL classroom activities incorporating 21st-century skills which include critical thinking, creativity, collaboration, and communication.

From the findings of this study, it is suggested that HOTS should be interpreted more flexibly depending on the context and convenience of the teachers so that it would not become counterproductive. Also, this study had a small sample size of participants. As a result, future research should try to analyze a bigger sample size to improve the study's validity.

Authors' Contributions.   In this study, author 1 conducted the experiment, analyzed the data, and write the draft of the manuscript. Author 2 contributed to help supervise the project and contributed to manuscript revisions.

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