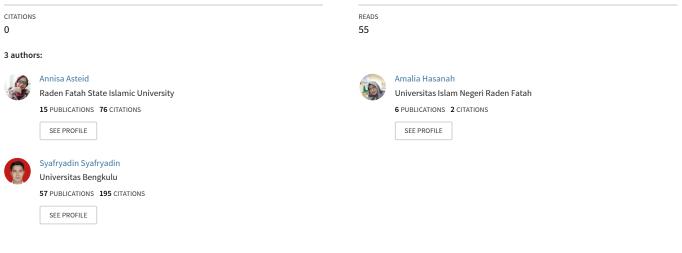
See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/363982289

# Integrating Higher Order Thinking Skills (HOTS) Into English Language Teaching for Elementary School Students: Teachers' Perspectives and Challenges

Article *in* 3L The Southeast Asian Journal of English Language Studies · September 2022 DOI: 10.17576/3L-2022-2803-14



Some of the authors of this publication are also working on these related projects:



Penelitian Pendidikan View project

Teaching Narrative Writing Using Freaky Fables Game: An Experimentation View project

# Integrating Higher Order Thinking Skills (HOTS) Into English Language Teaching for Elementary School Students: Teachers' Perspectives and Challenges

ANNISA ASTRID

Universitas Islam Negeri Raden Fatah Palembang, Indonesia annisaastrid\_uin@radenfatah.ac.id

AMALIA HASANAH Universitas Islam Negeri Raden Fatah Palembang, Indonesia

> SYAFRYADIN University of Bengkulu, Indonesia

#### ABSTRACT

The purpose of this research was to 1) identify teachers' perspectives on incorporating HOTS into EFL classes for primary school students and 2) discover the challenges faced by the teachers during the implementation of HOTS based learning. This study used an embedded mixed technique. The quantitative data were acquired by giving one set of closed-response questionnaire items to 39 English teachers teaching English in elementary schools in Palembang, Indonesia. Meanwhile, qualitative data were gathered through one-on-one in-depth interviews with ten English teachers who agreed to be interviewed. The descriptive statistics analysis was used to assess the students' replies to each questionnaire item. Meanwhile, thematic analysis was used to assess the qualitative data gleaned from the interviews. The statistical study revealed that first, Teachers expressed their positive experiences implementing HOTS-based learning in EFL classes for elementary school students. Second, there are five impediments that instructors encountered while applying HOTS-based learning for primary school children; 1) time limitations; 2) supplementing HOTS-based learning resources; 3) selecting an effective teaching strategy to elicit students' HOTS; 4) selecting an effective teaching strategy to elicit students and 6) Big class size

Keywords: Elementary School Students; English Language Teaching (ELT); High Order Thinking Skills (HOTS)

# INTRODUCTION

Higher Order Thinking Skills (HOTS) are critical to developing today in order to improve educational quality (Roets & Maritz, 2017; Vijayaratnam, 2012). Thinking abilities are essential in the educational process because they affect a student's capacity and effectiveness in learning. According to Fisk (2017), HOTS is at the top of the hierarchy of thinking abilities in cognitive stages because it requires the capacity to think deeply and completely. It enables pupils to overcome the difficulties associated with digesting an excessive amount of information in a short amount of time. Thus, throughout the teaching process, a teacher should include both thinking and learning skills in order to provide pupils with both information and abilities.

Along with having positive attitudes and knowledge, the 2013 curriculum requires students to have reasoning skills, as well as the ability to present and communicatively in both the concrete and abstract realms through a series of learning activities that include observing, asking, trying, reasoning, presenting, and creating (Ministry of Education and Culture, 2013). Instead of literacy, character education, and 4C (collaborative, creative, communicative, and critical) education, HOTS as one of the objectives specified in the 2013 Curriculum plays a key role in supporting the

industrial revolution as described in the 4.0 learning environment. This may be accomplished by incorporating HOTS into all classes including English (Osman & Kassim, 2015). Thus, preparing students to advocate for their own learning ability, preference, and approach, and so preparing them to be self-directed learners.

Because English is the world's international language, it is extremely important to learn. To keep up with the globalization period, people must learn English. although English is a compulsory subject for students at the junior high and high school levels, for elementary schools learning English is local content where English is not a subject that must be taught. When teachers of English at an elementary school feels ready to teach English, then it can be taught to the elementary school students. However, learning English for elementary school students cannot be ignored. According to Long (1990), experts concur on the importance of age in language learning. A person may learn a language at any age, but the age at which the language is learned has a significant impact on the amount of mastery. When it comes to learning a second/foreign language, perfection (near to native speakers) can be attained if the study begins before puberty (before the age of 13 years). As a result, the phrase "the younger, the better" is frequently used in the context of learning a second/foreign language to indicate that if we want to reach perfection in language acquisition, we must begin before puberty (Long, 1990).

Because proficiency in English and critical thinking are crucial for success in the globalization era, particularly in the industrial revolution 4.0, the process of learning English based on High Order Thinking Skills must also be accomplished. In fact, Rahimali (2018) discovered that learners strengthening their English language abilities at universities had a considerably better degree of reflective thinking. As Nourdad et al., (2018) stated that a learner's thought can impact his or her aptitude, speed, and efficacy of learning. As a result, thinking abilities are intrinsically related to the process of learning. In other words, thinking abilities are intrinsically related to the process of learning. Students who have gained the ability to think exhibit the positive impact this has had on their learning's progress.

Several studies have been conducted on HOTS in English language learning. To begin, research studies have been conducted on the examination of HOTS offered in EFL textbooks (Masoudi, 2018; Raqqad & Ismail, 2018; Zamani & Resvani, 2015). Then there were research articles that examined HOTS questions in EFL classroom engagement (Shafeei et al., 2017; Yulia & Budiharti, 2019). The study examined HOTS-based items in English tests or assessments (Ahmad et al., 2015; Ramadhana et al., 2018). Following that, Studies were conducted to ascertain instructors' perceptions and views on the use of HOTS-based teaching in EFL courses (Ahmad et al., 2017). Then came the studies on teachers' perceptions, knowledge, and behavior about HOTS (Ardini, 2018). Finally, there are researches on the effectiveness of higher order thinking skill-based instruction in EFL classes (Nourdad et al., 2018; Simanungkalit et al., 2019).

According to the findings of a study on HOTS-based English learning, there is a paucity of research on the process of learning English in elementary schools particularly to discover the perspectives of English instructors who teach in primary schools on the adoption of HOTS learning. As a result, the study sought to ascertain 1) teachers' perspectives on HOTS-based instruction in EFL classrooms and 2) the challenges the teachers encountered when implementing HOTS based teaching in teaching English to elementary school students.

# LITERATURE REVIEW

# HIGH ORDER THINKING SKILLS (HOTS)

According to Yeung (2015), HOTS is an intriguing phrase that refers to the process of applying critical and imaginative thinking to the resolution of complex circumstances. The HOTS acronym is taken from Bloom's taxonomy, which has been used to construct teaching and learning outcomes (Anderson & Krathwohl, 2000). It has six objectives: knowledge, understanding, application, analysis, synthesis, and assessment (Bloom, 1984). The six categories provide a hierarchy of thinking abilities, from the most fundamental (knowledge), commonly referred to as Low Order Thinking Skill (LOTS), to the most complicated (evaluation), colloquially referred to as High Order Thinking Skill (HOTS). Numerous experts, on the other hand, argue that these educational objectives are less realistic and empowering. Nouns are considered to be more rigid and less dynamic than verbs, which makes classification harder in assessment tasks. Anderson and Krathwohl (2000) clarified these instructional objectives. They classified them into six separate purposes that are considered basically comparable but easier to identify; remembering, comprehending, applying, analyzing, evaluating, and creating. The taxonomy's top three levels (analyzing, evaluating, and producing) are frequently viewed as higher-order cognitive abilities (HOTS).

Heong et al. (2011) mentioned high order thinking skills entails broadening one's thinking in order to solve new problems. Higher order thinking requires someone to apply newly acquired information or knowledge and manipulate it in order to arrive at a possible solution in a new circumstance. According to Brookhart (2010), the learning objective of any of the cognitive taxonomies is to provide students with the ability to transfer. "Thinking ability" refers to students' ability to adapt the information and abilities acquired during their education to novel situations. "Novel" in this context refers to applications that the student has not considered previously, not necessarily anything universally novel. Higher order thinking is defined as students' ability to connect their learning to aspects other than those with which they were taught to correlate it.

# TEACHING HOTS IN EFL CLASS

Teachers should stimulate critical thinking in order to teach English utilizing HOTS. Argumentation, decision-making, and problem-solving are all related with critical thinking (Willingham, 2008). Teachers might use open-ended questions to elicit critical thinking from students or problem-solving activities that require students to examine problems as they complete the tasks. According to Lee & Lai (2017), asking students open-ended questions may prompt them to create comparisons, offer rationale, or conduct research based on prior knowledge. It assists students in developing their capacity for critical thinking. Along with effective inquiry approaches, Leung (2013) recommends the use of active learning strategies to help students develop their capacity for higher-order thinking.

To effectively teach HOTS, teachers must establish specific learning objectives that increase students' critical thinking abilities. Goldenberg (2013) emphasized the importance of having clear objectives, relevant and challenging content, and well-designed education and instructional routines while implementing HOTS. Additionally, teachers must present adequate information that is neither too simple nor too tough for students to comprehend. The material should contain exercises that require students to think critically. Because students' critical thinking

abilities do not develop fast, teachers should often provide students with diverse HOTS tasks throughout each meeting to familiarize them with HOTS.

## HOTS IN EFL CLASS FOR PRIMARY LEVEL STUDENTS

The development of critical thinking abilities at the elementary school level is critical in light of contemporary developments. Efforts to encourage and enhance thinking abilities should begin in elementary school, since this is regarded the optimal age to lay the groundwork for later education (Ikhsan & Norlia, 2005; Yusoff & Embong, 2017). Given children's thinking is generally basic in comparison to adults. Incorporating critical thinking into language learning, particularly among young English learners, may become increasingly difficult. Roets and Maritz (2017) assert that mastering HOTS is not straightforward. As a result, establishing HOTS may take some time and may require the direction of teachers.

The bulk of classroom activities are still based on a technique of knowledge transmission that places a premium on low-order cognitive processes (Zohar & Cohen, 2016). Adults and children alike are accustomed to being trained to engage in low-order cognitive processes as a matter of course, but this is especially true for Asians. For instance, students are typically asked who, what, and when inquiries rather than why, what if, and how if. They are used to acquiring knowledge but not to applying or synthesizing it.

Additionally, teachers should be aware of their students' learning styles in order to aid them in establishing their HOTS. Along with the theme of inclusive classrooms, they should be cognizant of each student's preferred method of instruction. According to Yee et al., (2015), it is vital to understand students' learning styles in order to facilitate and accommodate HOTS in the classroom. Teachers must go beyond the cognitive aspect of learning in order to anticipate these varied learning styles.

# **RESEARCH METHOD**

This study needed both qualitative and quantitative data collection. To determine elementary school teachers' perspective of HOTS based teaching in teaching English to elemeantary school students, quantitative data were acquired. Qualitative data were necessary to augment to elicit information on teachers' difficulties handling HOTS based teaching EFL class for young learners. As a result, this research employed a mixed-methods. When qualitative and quantitative data are combined in a mixed methods study, both types of data provide a richer understanding of the research topic than either kind alone (Creswell, 2012; Harwell, 2011; and Heigham & Croker, 2009).

Embedded Design was selected (Creswell, 2012; Heigham & Croker 2009), because it was understood that quantitative data alone would be insufficient. Both quantitative and qualitative data were gathered to supplement one another. As a result, secondary data were collected in order to supplement or complete the main data. Because the two datasets addressed different study areas, they were analyzed independently.

There are two research problems in this research. In order to explore English teachers' perspectives about teaching HOTS in EFL classes for young learners, quantitative data from a quantitative survey were analyzed. Qualitative data were also gathers to examine teachers' challenges in teaching HOTS based English to young learners.

# SETTING AND PARTICIPANTS

The research participants were English teachers who taught in elementary schools in South Sumatera. The convenience sampling technique was used to draw the sample. Teachers were chosen on the basis of their consent to take part in the survey. The survey elicited responses from 39 teachers of English teachers who teach elementary schools in Palembang, one of the capital cities in Indonesia. Then, ten teachers were chosen based on their willingness to be interviewed about their challenges teaching HOTS in EFL lessons for primary school pupils. As to fulfill the ethics of the research, the names of interviewees are anonymous

# TECHNIQUES OF COLLECTING DATA

The teachers' perspectives about the implementation of HOTS based teaching in teaching English to elementary school students were gathered via a quantitative survey involving the distribution of close-response survey questionnaire. The questionnaire consists of 15 questions. Strongly Disagree=1, Disagree = 2, Undecided = 3, Agree = 4, and Strongly Agree = 5 were used as the scale of each item of the questionnaire. The items were created using the following criteria: 1) Teachers' application of HOTS in English classes; and 2) Teachers' attitudes about teaching HOTS in English classes. The items of the questionnaire are listed in Table 1 as follows:

TABLE 1. Items on Closed Response Questionnaire

Item	Statement
1	I used HOTS-based learning in English class for elementary school students
2	I implemented HOTS-based learning at all learning stages in a single meeting
3	I applied HOTS-Based English learning process only for specific topics
4	I apply the HOTS-based English learning process for all meetings
5	I have gained necessary knowledge to manage HOTS-based English learning for young learners
6	I am familiar with various HOTS-based strategies for teaching English for primary level learners
7	I am capable to develop HOTS-based English questions for elementary school students
8	I construct all the test items for my elementary students with HOTS Level (C4, C5 and C6)
9	I construct English test items while still maintaining the proportional LOTS and HOTS levels
10	I consider it critical to introduce higher order thinking skills at the elementary school level
11	I feel that the students in the classes that I teach are more engaged in the HOTS-based learning strategy that I have applied
12	I feel that students are confused by the HOTS-based learning strategy that I have implemented
13	I believe that using HOTS will impair my students' capacity to assimilate English materials, which becomes my
	fundamental objective in teaching.
14	I feel that the material in the textbook that is instructed by the school to be used in teaching English in my class is
	sufficient to carry out a HOTS-based learning process
15	I provide supplementary materials in facilitating the HOTS-based learning process in my classroom.

The descriptive statistics were used to examine the quantitative data collected from teachers' questionnaire responses in order to determine the frequency and mean score for each questionnaire item. The mean score on the Likert Scale was then categorised using the categorization technique developed by Joshi et al. (2015). Table 2 summarizes the categorization.

cale
to 1,8
8 to 2,6
5 to 3,4
4 to 4,2
2 to 5

TABLE 2. Scales for Classifying the Results of Closed-Ended Questionnaires

Meanwhile, the qualitative data were analyzed through the use of Thematic Analysis or Coding Analysis (Creswell, 2012; Miles, Huberman & Saldana, 2014). When doing thematic analysis, certain procedures have to be followed. Prior to beginning the coding process, the data needed to be prepared and categorised. This involves both file naming and grouping of files and data. The subsequent stage involved data reduction. The analytical data were chosen in accordance with the research objectives. Following that, all of the data that had been selected were evaluated and analyzed. Then, the open coding is engaged, that is the technique of linking a code with an idea present inside the data. Subsequent phases necessitated additional rounds of data exchange. After coding data for a significant concept, an emerged theme was developed and gained a deeper understanding of the concept's implication. The following stage was to investigate the patterns that emerged from the codes. The final stage of qualitative analysis was to convey the full process of coding and conceptualization in connection to the study themes. The data processing, coding, and conceptualization processes were discussed in relation to the research objectives.

#### FINDINGS

This section discussed the findings from the data analysis undertaken to address each of the research questions raised in this study. The following is a description of the findings for each research question:

#### TEACHERS' PERSPECTIVE ON IMPLEMENTING HOTS BASED TEACHING IN EFL CLASS FOR YOUNG LEARNERS

Using descriptive statistics, the frequency and the mean score on the Likert scales were obtained, and they were converted to the scale using the categories suggested by Joshi et al. (2015) for each questionnaire item responded by the teachers. The results of the analysis are described in Tables 3 and 4.

Item	Ν	Mean	Scale Categorization	
1	39	4.05	Agree	
2	39	3.53	Agree	
3	39	3.66	Agree	
4	39	3.38	Undecided	
5	39	3.84	Undecided	
6	39	3.64	Agree	
7	39	3.89	Agree	
8	39	3.38	Undecided	
9	39	3.92	Agree	
10	39	4.23	Agree	

#### TABLE 3. SCALE CATEGORIZATION

3L: Language, Linguistics, Literature<sup>®</sup> The Southeast Asian Journal of English Language Studies Vol 28(3), September 2022 <u>http://doi.org/10.17576/3L-2022-2803-14</u>

11	39	4.00	Agree
12	39	2.76	Undecided
13	39	2.38	Disagree
14	39	3.82	Agree
15	39	3.92	Agree

Item	Frequency					
	SA	А	UD	D	SD	
1	17.9	71.8	7.7	2.6	-	
2	10.3	53.8	15.4	20.5	-	
3	23.1	48.7	28.2	-	-	
4	10.3	66.7	20.5	2.6	-	
5	10.3	44.6	9.8	35.9	-	
6	2.6	71.8	12.8	12.8	-	
7	15.4	66.7	10.3	7.7	-	
8	10.3	46.2	15.4	28.2	-	
9	12.8	71.8	10.3	5.1	-	
10	2.6	23.1	25.6	46.2	-	
11	20.5	64.1	10.3	5.1	-	
12	2.6	23.1	25.6	46.2	2.6	
13	-	12.8	17.9	64.1	5.1	
14	23.1	51.3	10.3	15.4	-	
15	17.9	61.5	15.4	5.1	-	

TABLE 4. THE SCALE'S FREQUENCY FOR EACH QUESTIONNAIRE ITEM

According to the descriptive data in Tables 3 and 4, it can be concluded that English teachers who teach elementary school students have used HOTS-based learning in their English classes. During that time period, the majority of teachers claimed they had implemented HOTS-based learning at all learning stages in a single meeting. Additionally, several teachers felt that they used the HOTS-Based English learning technique solely for specific topics. Additionally, some teachers have used the HOTS-based English learning process in all meetings and have acquired the necessary knowledge to manage HOTS-based English learning for young learners, while others have not. Additionally, the majority of teachers reported that they are familiar with a variety of HOTS-based English questions for elementary school students. Additionally, some teachers stated that they created all test items for their elementary school students at the HOTS Levels (C4, C5, and C6), whereas others did not. The majority of teachers then agreed that they developed English test items while maintaining proportional LOTS and HOTS levels variation.

Additionally, based on teachers' responses to questionnaire items, it is clear that teachers believe it is critical to promote higher order thinking skills at the elementary school level. Some teachers reported that their students were more engaged in the HOTS-based learning approach they used, while others did not. However, the majority of teachers stated that their students were not confused by the HOTS-based learning approach they utilized and that it would not impair their students' capacity to internalize English materials, which is the fundamental objective of teaching. Finally, teachers acknowledged that while the content in the textbook required by the school to be utilized in teaching English is sufficient to conduct a HOTS-based learning process, teachers continue to supply supplementary materials to facilitate the HOTS-based learning process.

#### THE CHALLENGES THE TEACHERS FACED IN INTEGRATING HOTS IN EFL CLASS FOR YOUNG LEARNERS

Based on coding analysis of the qualitative data, five themes were emerged; 1) time limitation; 2) Supplementing HOTS based learning materials; 3) Choosing an effective teaching technique to stimulate students' HOTS; 4) Choosing an effective teaching technique to stimulate students' HOTS; 5) Mixed ability of the students and 6) Big class size. Each theme reflects each obstacle faced by the teachers in implementing HOTS based learning in EFL class for primary level students. The description of each constraint is as follows:

#### TIME LIMITATION

Based on data gathered from interviews with 10 elementary school teachers, it was determined that they mostly used HOTS-based learning in elementary school English lessons. However, teachers acknowledged their struggle with time management in order to manage the HOTS-based learning process. For instance, one of the instructors confessed that when they attempted to adopt problem-based or project-based learning in order to stimulate students' critical thinking, they were unable to complete the task owing to time constraints. T, one of the teachers clarified:

"I normally divide my students into groups and provide them a photo and questions on the subject. This is beneficial for my students' critical thinking as they evaluate the images and respond to the questions. The questions I posed concerned what is occurring in the image, how it might have occurred, and how to resolve the issues depicted in the image. It truly does take time. I need to consider how my students might accomplish the purpose of today's lesson while also developing their critical thinking abilities."

(NR, personal communication, 2021)

NR, the other teacher, affirmed:

"I routinely assigned modest projects to my pupils in order to help them enhance their life skills and critical thinking abilities. However, I regularly discovered that a single encounter is insufficient for me ."(NR, personal communication, 2021)

Additionally, the teachers argued that incorporating HOTS aspects into teaching and learning in elementary schools might obstruct teaching and learning processes. Additionally, they voiced tremendous anxiety about how to teach the essential skills under a time constraint. One of the teachers, S, specifically referred that:

"Lessons are postponed to allow sufficient time for all students in my class to acquire the HOTS. Since a result, teaching and learning are not always carried out according to plan, as I need to repeat certain lectures or descriptions. I'm required to explain it constantly... and in certain instances, I'm required to repeat my lecture." (S, personal communication, 2021)

AR, the other teacher, clarified:

"I'm stressed because there are so many topics that students must learn...this disturbs me...I was wondering about how to accomplish all of the learning objectives while also developing critical thinking abilities; it feels as like there are a lot of items and skills that need to be taught simultaneously."

(AR, personal communication, 2021)

## SUPPLEMENTING HOTS BASED LEARNING MATERIALS

According to the interview, another challenge teachers experience when implementing HOTSbased learning is that not all textbook resources are suited for use in implementing HOTS-based learning. It is challenging for teachers to rearrange classes in such a way that all students obtain topic awareness and HOTS. Due to instructors' perceptions of HOTS and subject matter as independent entities, the first impediment to introducing HOTS into their English classrooms is a lack of competence. One of the teachers name S clarified:

In my opinion, not all the material in the textbooks that I use can be taught with HOTS-based learning. Sometimes I have confusion how to teach certain material with HOTS-based learning.

# Another student named R clarified:

"I feel that the HOTS-based teaching materials in the textbooks I use are insufficient. That's why I sometimes have to look for other additional materials". (R, personal communication, 2021)

#### CHOOSING AN EFFECTIVE TEACHING TECHNIQUE TO STIMULATE STUDENTS' HOTS

Teachers struggled to come up with fresh ideas for teaching HOTS, and they perceived that developing unique teaching activities and thinking tools for use in teaching and learning sessions was extremely difficult particularly when teachers are required to change and enhance their teaching materials, instructional methods, and teaching and learning processes. Due of each pupil's uniqueness, it was challenging for teachers to focus on both subject matter and HOTS. Teachers, too, are preoccupied with imparting knowledge rather than honing students' metacognitive and critical thinking abilities. Teachers, too, felt the growing burden as a result of this. Thus, in the context of HOTS teaching skills, instructors faced the task of planning and delivering lessons that were effective at meeting both subject matter and HOTS objectives.

One of the teachers named M mentioned:

"In making HOTS-based learning plans, I sometimes have confusion in determining the right teaching technique because I have to make sure that all my students master the material that I convey while also ensuring how the development of my students' ability to think critically".

(M, personal communication, 2021)

# Another teacher named B emphasized:

"I had difficulties in developing the syllabus and identifying, choosing, and deciding the most effective teaching and learning technique for HOTS. I believed that teaching for HOTS might disrupt the classroom's teaching and learning process. This was probably exacerbated by my incapacity to focus on both curriculum and HOTS". (B, personal communication, 2021)

#### MIXED ABILITY OF THE STUDENTS

Additionally, this research revealed that teachers faced considerable challenges as a result of their students' cognitive capacity, mastery of fundamental or previous skills, and ability to concentrate. The majority of teachers felt that certain pupils, particularly those who struggled to acquire basic skills, require ongoing assistance. According to the responders, some pupils lack confidence while dealing with HOTS activities, and others even divert from them and do not react to the questions. One of the teachers named I clarified:

"The students in my class consist of students with various abilities. This makes sometimes the HOTS-based learning process that I plan sometimes doesn't work as it should. Where there are students who respond quickly, there are those who do not and there are students who are silent during the learning process. This makes me need to give extra treatment". (I, personal communication, 2021)

Students' mastery of fundamental abilities is inextricably linked to their learning ability. Students with varying degrees of cognitive capacity demonstrate varying degrees of competency. This has an effect on HOTS teaching and learning. One of the teachers named DR confirmed "Sometimes I have planned everything but the teaching and learning designed cannot be properly implemented because pupils who have not yet mastered basic skills need special attention and teachers need to explain it repeatedly"

Thus, the capacity of students to learn how to think, how to consider about reasoning, and how to assume for themselves was the biggest difficulty for teachers, particularly among disadvantaged students, not just cognitively, but also psychomotorically and affectively. Pupils placed a high reliance on teachers in many parts of their lives.

## BIG CLASS SIZE

The number of students in a class limits the teacher's ability to be as successful as she or he would want. The majority of teachers said that they teach in schools that have more than one class with more than 20 students, making it impossible to examine each student's potential for Higher-Order Thinking Skills (HOTS) and to encourage each student's development. One of the teachers named C mentioned:

"There are about 35 students in my class. This makes it difficult for me to monitor my students one by one in the learning process. This also makes not all children sometimes do all the instructions I give". (C, personal communication, 2021)

# DISCUSSION

According to the analysis of the questionnaire data, it can be inferred that the majority of primary school teachers in Palembang, Indonesia is aware of the relevance of HOTS-based teaching in EFL classes for young learners and have included it into their classroom's learning process. Additionally, the study revealed that several teachers acknowledged to lacking the necessary competence to handle HOTS-based English learning for young learners. This is most likely because teachers recognize the challenge associated with implementing HOTS. This is consistent with Ganapathy et al. (2017), who asserted that it is challenging since Indonesian teachers are accustomed to a teacher-centered approach. Teachers must cultivate the capacity to adapt to a student-centered classroom environment. In a teacher-centered learning environment, teachers may over-exercise their students. Thus, pupils may just absorb information from the instructional materials, rather than the deeper concepts. Additionally, teacher-centered learning frequently focuses on exercises in which teachers exert control over pupils rather than involve them. As a result, pupils grasp but lack the ability to apply the knowledge (Bernaisch & Koch, 2016).

Additionally, the majority of teachers reported being familiar with a number of HOTSbased techniques for teaching English to primary school students and being competent of producing HOTS-based English questions for elementary school students. Additionally, some teachers indicated that they developed all test items for their elementary school students at the

HOTS Levels (C4, C5, and C6), while others stated that they did not. The majority of teachers then agreed that they designed English test items with corresponding variance in LOTS and HOTS levels.

According to some teachers, the HOTS-based learning approach they utilized engaged their students more, while others reported that their students were less involved. The majority of instructors, however, claimed that their students were not puzzled by the HOTS-based learning strategy they used and that it would not affect their students' ability to assimilate English materials, which is the primary goal of teaching. Finally, teachers recognized that, while the content of the school-mandated textbook for English instruction is sufficient to conduct a HOTS-based learning process, teachers continue to provide supplemental resources to aid the HOTS-based learning process.

Additionally, based on the interview responses, it was determined that the teacher of primary school pupils has certain problems while applying HOTS-based learning activities in their EFL class. To begin, the teacher faces a time constraint when implementing HOTS-based learning in EFL classes; this is consistent with research demonstrating that the majority of teachers must develop their ability to answer HOTS questions through the use of students' creativity, real concern, and analytical thinking capabilities (Setiawan et al., 2018). Which takes time to design and prepare. The study's participants, who were English teachers, had difficulty balancing their time creating HOTS coursework with their time constraints.

Additionally, teachers encounter challenges in complementing HOTS-based learning materials and choosing appropriate teaching techniques for HOTS-based learning in EFL classes. Indeed, when teachers begin organizing a class, they must keep the students' requirements in mind. Thus, planning is critical in the process of teaching and learning. Teachers are required to be able to prepare lessons based on Higher-Order Thinking Skills (HOTS), which are primarily meant to promote students' critical thinking, when implementing the 2013 curriculum (K-13). This is in line to what Mursyid and Kurniwati (2019) clarified that teaching English in EFL context needs teachers to be skilled at organizing activities that foster students' critical thinking abilities. It is reasonable to conclude that instructors require rigorous HOTS teaching. Musa and Yamat (2021) argue that the most challenging problem for such teachers was teaching ideas they did not entirely grasp and communicating abilities to pupils they did not fully grasp.

Additionally, the teachers struggled to manage the varied ability class. This is consistent with Musa and Yamat (2021) observation that teachers encounter considerable challenges as a result of their students' cognitive capacities, mastery of fundamental or previous skills, and focus. The majority of teachers felt that certain students, particularly those who struggled to acquire basic skills, require ongoing assistance. According to the responses, some students lack confidence while dealing with HOTS activities, and others even divert from them and do not react to the question.

Finally, the majority of instructors stated that they are required to manage large classes with more than thirty students. Due to the large number of students, it was difficult for teachers to supervise each student's activity during the learning process. According to Aoumeur (2017), the instructor's success is limited by the number of pupils in the class. The proper class size must be decided in a well-balanced distribution.

## CONCLUSION

It can be concluded from the research that first, teachers shared positive perspectives about the implementation of HOTS based learning in EFL class for young learners. Second, there are five obstacles that become challenges the teachers faced in implementing HOTS based learning for their elementary school students; 1) Time limitation; 2) Supplementing HOTS based learning materials; 3) Choosing an effective teaching technique to stimulate students' HOTS; 4) Choosing an effective teaching technique to stimulate students' HOTS; 5) Mixed ability of the students and 6) Big class size.

#### REFERENCES

- Ahmad, A. A., Ismail, F., Ibrahim, N. M., & Samat, N. A. (2017). Investigating the implementation of Higher Order Thinking Skills in Malaysian classrooms: Insights from L2 teaching practices. Sains Humanika, 9(4-2). https://doi.org/10.11113/sh.v9n4-2.1361
- Ahmad, K. A., Zamri, M. L., & Abdul Kadir, N. L. (2015). An Investigation of the Frequency of HOT and LOT of Bloom Taxonomy in the Diploma English Entrance Exam. *AJELP: Asian Journal of English Language and Pedagogy*, *3*, 228-241. Retrieved from https://ejournal.upsi.edu.my/index.php/AJELP/article/view/1232
- Anderson, L., & Krathwohl, A. (2000). *Taxonomy of Teaching and Learning: A Revision of Bloom's Taxonomy of Educational Objectives*. Educational Psychology.
- Aoumeur, H. (2017). The Impact of Class Size on Teaching and Learning English as a Foreign Language: The Case of the Department of English at Abdelhamid Ibn Badis University . Arab World English Journal, 8 (2). DOI: https://dx.doi.org/10.24093/awej/vol8no2.25
- Ardini, S. N. (2018). Teachers' perception, knowledge and behaviour of Higher Order Thinking Skills (HOTS). *ETERNAL (English Teaching Journal)*, 8(2). 20-33. https://doi.org/10.26877/eternal.v8i2.3045
- Bernaisch, T., & Koch, C. (2016). Attitudes towards Englishes in India. World Englishes, 35(1), 118-132. https://doi.org/10.1111/weng.12174
- Bloom, B. S. (1984). The 2 Sigma Problem: The Search for Methods of Group Instruction as Effective as One-to-One Tutoring. *Educational Researcher*, 13, 4-16. http://dx.doi.org/10.3102/0013189X013006004
- Brookhart, S.M. (2010). *How to assess Higher-Order Thinking Skills in your classroom*. United States of America: ASCD Member Book.
- Creswell, J.W. (2012). Educational research: Planning, Conducting, and Evaluting Quantitative and Qualitive Research (4th ed.). Pearson.
- Fisk, P. (2017). Education 4.0 the future of learning will be dramatically different, in school and throughout life. Retrieved from http://www.thegeniusworks.com/2017/01/future-education-young-everyone-taught-together
- Ganapathy, M., Singh, M.K.M., Kaur, S., & Kit, L.W. (2017). Promoting higher order thinking skills via teaching practices. *The Southeast Asian Journal of English Language Studies*. 23(1), 75-85. https://doi.org/10.17576/31-2017-2301-06
- Goldenberg, C. (2013). Unlocking the research on English Learners. *American Educator*, 37, 4–38. https://files.eric.ed.gov/fulltext/EJ1014021.pdf
- Harwell, M. R. (2011). Research design: Qualitative, quantitative, and mixed methods: Pursuing ideas as the keystone of exemplary inquir. In C. Conrad, & R. C. Serlin (Eds.), *The Sage handbook for research in education: Pursuing ideas as the keystone of exemplary inquir* (2<sup>nd</sup> ed.). Sage.
- Heigham, J., & Croker, R. (2009). *Qualitative research in applied linguistics: a practical introduction*. Palgrave Macmillan.
- Heong, Y. M., Othman, W. B., Yunos, J. B. M., Kiong, T. t., Hassan, R. B., & Mohamad, M. B. (2011). The level of Marzano higher-order thinking skills among technical education students. *International Journal of Social Science and Humanity*, 1(2), 121-125. http://ijssh.org/papers/20-H009.pdf
- Ikhsan, O., & Norlia, M. S. (2005). Kurikulum dan pengajaran sekolah rendah, aspek-aspek yang berkaitan (curriculum and primary school teaching, relevant aspects). Quantum Books.
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert Scale: Explored and Explained. *Current Journal of Applied Science and Technology*, 7(4), 396-403. https://doi.org/10.9734/BJAST/2015/14975

- Lee, K., & Lai, Y. (2017). Facilitating higherorder thinking with the flipped classroom model: a student teacher's experience in a Hong Kong secondary school. Research and Practice in Technology Enhanced Learning, 12(1). doi:10.1186/s41039-017-0048-6.
- Leung, L. L. (2013). An inquiry of teachers' perception on the relationship between higher-order thinking nurturing and liberal studies public assessment in Hong Kong. *Teachers'Centre Journal*, 12, 183–215. https://www.semanticscholar.org/paper/An-inquiry-of-teachers'-perception-on-the-between-Sim/49255dda97b233f40d5b653ca2d61bd5c7b577d5#citing-papers
- Long, M. H. (1990). Maturation constarints on language development. *Studies in Second Language Acquisitions*, 12(3), 251 285. http://www.jstor.org/stable/44488300
- Mursyid, M., & Kurniawati, N. (2019). Higher order thinking skills among English teachers across generation in EFL classroom. *English Review: Journal of English Education*, 7(2), 119. https://doi.org/10.25134/erjee.v7i2.1775
- Masoudi, S. (2018). A content-based analysis of the activities in Iranian senior high school textbook. Unpublished M.A. thesis. University of Tabriz. Tabriz: Iran.
- Miles, M. B., Huberman, A. M., & Saldaäna, J. (2014). *Qualitative data analysis: A methods sourcebook* (3<sup>rd</sup> ed.). SAGE Publications, Inc.
- Ministry of Education and Culture. (2013). Curriculum 2013. Jakarta: Kementrian Pendidikan dan Kebudayaan.
- Musa, H. M., & Yamat, H. (2021). Exploring primary school teachers' challenges in incorporating Higher Order Thinking Skills (HOTS) in English classroom. *International Journal of Academic Research in Progressive Education and Development*, 10(2), 665–674. https://doi.org/10.6007/ijarped/v10-i2/9970
- Nourdad, N., Masoudi, S., & Rahimali, P. (2018). The effect of higher order thinking skill instruction on EFL reading ability. *International Journal of Applied Linguistics & English Literature*. 7(3), 231-237. https://doi.org/10.7575/aiac.ijalel.v.7n.3p.231
- Osman, N., & Kassim, H. (2015). Exploring strategic thinking skills in process oriented task in ESL classroom. *Procedia-Social and Behavioral Sciences*, 171, 937–944. https://doi.org/10.1016/j.sbspro.2015.01.212
- Rahimali, P. (2018). Comparing reflective thinking ability of EFL learners in language institutes and schools. Unpublished M.A Thesis. University of Tabriz, Iran.
- Ramadhana, N. A., Rozimela, Y., & Fitrawati. (2018). High order thinking skills-based questions in the test items developed by senior high school English teachers of Padang. *Journal of English Language Teaching*, 7(4), 720-731. https://doi.org/10.24036/jelt.v7i4.101757
- Raqqad, Y. M. A., & Ismail, H. H. (2018). Analyzing the reading questions of AP12 textbook according to Bloom's taxonomy. *International Journal of Education, Psychology and Counseling*, *3*(22), 84-94. http://www.ijepc.com/PDF/IJEPC-2018-22-12-06.pdf
- Roets, L., & Maritz, J. (2017). Facilitating the development of higher-order thinking skills (HOTS) of novice nursing postgraduates in Africa. *Nurse Education Today*, 49, 51-56. https://doi.org/10.1016/j.nedt.2016.11.005
- Setiawan, A., & Bharati, D. A. L. (2019). Developing HOT project-based-speaking assessment to stimulate the students' critical thinking and creativity. *English Education Journal*, 8(3), 301–307. https://doi.org/10.2991/eltlt-18.2019.66
- Simanungkalit, I., Utanto, Y., & Rifai, A. R. C. (2019). The effectiveness of PBL-based HOTS in English learning. *Innovative Journal of Curriculum and Educational Technology*, 8(2), 67–73. https://journal.unnes.ac.id/sju/index.php/ujet/article/view/31342
- Shafeei, K.N., Hassan, H., Ismail, F., & Aziz, A. A. (2018). Incorporating higher order thinking skill (HOTS) questions in ESL classroom contexts. *LSP International Journal*, 4(1), 101–116. https://doi.org/10.11113/lspi.v4n1.49
- Vijayaratnam, P. (2012). Developing higher order thinking skills and team commitment via group problem solving: A bridge to the real world. *Procedia-Social and Behavioral Sciences*, 66, 53–63. https://doi.org/10.1016/j.sbspro.2012.11.247
- Willingham, D. T. (2008) Critical Thinking: Why Is It So Hard to Teach?, Arts Education Policy Review, 109(4), 21-32. https://doi.org/10.3200/AEPR.109.4.21-32
- Yee, M. H., Yunos, J. M., Othman, W., Hassan, R., Tee, T. K., & Mohamad, M. M. (2015). Disparity of Learning Styles and Higher Order Thinking Skills among Technical Students. Procedia- Social and Behavioral Sciences, 204, 143–152. https://doi.org/10.1016/j.sbspro.2015.08.127
- Yeung, S. Y. S. (2015). Conception of teaching higher order thinking: perspectives of Chinese teachers in Hong Kong. *The Curriculum Journal*, 26(4), 553-578. https://doi.org/10.1080/09585176.2015.1053818
- Yulia, Y., & Budiharti, F. R. (2019). HOTS in teacher classroom interaction: A case study. *EduLite Journal of English Education, Literature, and Culture, 4*(2), 132–141. https://doi.org/10.30659/e.4.2.132-141

- Yusoff, W.M.W & Embong, R. (2017). Teachers challenges in teaching and learning for Higher Order Thinking Skills (HOTS) in primary school. International Journal of Asian Social Science. 7(7), 534-545. https://doi.org/10.18488/journal.1.2017.77.534.545
- Zamani, G., & Rezvani, R. (2015). 'HOTS' in Iran's official textbooks: Implications for material design and student learning. *Journal of Applied Linguistics and Language Research*, 2(5), 138-151. http://www.jallr.com/index.php/JALLR/article/view/99
- Zohar, A., & Cohen, A. (2016). Large scale implementation of higher order thinking (HOT) in civic education: The interplay of policy, politics, pedagogical leadership and detailed pedagogical planning. *Thinking Skills and Creativity*, 21, 85-96. https://doi.org/10.1016/j.tsc.2016.05.003