Boosting Classroom Interaction Based on Higher Order Thinking Skills (HOTS) in English Learning for Beginners

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Abstract
Asking activity is a form of class interaction that needs attention. With the asking activity, it can increase the questioner's knowledge. This study aimed to identify the questions form that filed by teachers and students in the classroom following the framework of thinking mandated in the revised Bloom Taxonomy and to explore the problems faced by lecturers in implementing the HOTS-based learning process. This study used qualitative methods by applying observation sheets and interview to collect data. The data analysis of this research used analysis of domain, taxonomy, component, and theme. The results of this study indicate that lecturers and students have applied the principles of Higher Order Thinking Skills (HOTS) from core learning activities to final learning activities. The form of the question is in level C4 (Analyzing), C5 (Evaluating), and C6 (Creating), but in the form of Creating questions, students still need to increase the frequency in asking. The problem faced is the difficulty in stimulating students who can answer and ask questions at level C6 in HOTS. Therefore, lecturers also try to overcome these problems by implementing strategies in the learning process.

Keywords: Classroom interaction, higher order thinking skills (HOTS), English learning, beginners, questions

Introduction

Classroom interaction is one of the factors that supports the success of the learning process. With class interactions, teachers and students do the process of transfer or share knowledge (Harmer, 2003; Supriyadi, 2011). Classroom interactions may consist of teacher-student and student-student interactions. Ellis (1990) states that classroom interaction is a form of unification of meanings or means of exchanging information. In learning English, Brown (2007) also states that interaction is a way to activate the students and indirectly improve their ability to communicate and also collaborate well.

To achieve good interaction in class, it requires the role of the teacher. A teacher must think of various efforts to enable students to interact (Lomi, et al. 2020) and convey the meaning of the material in good way (Febriani, et al. 2020). One way to activate interaction in class is to stimulate the students. Stimulation can be given by asking questions and stimulating students to ask questions. By asking questions to students, a teacher has trained students to be able to think in looking for the answer to these questions. Likewise, when teachers encourage students to ask questions, it automatically activates students to think.

According to *Kurikulum 2013*, students are required to be able to think critically. They are emphasized in mastering 4 aspects that are integrated into the lesson plan which consists of character building, literacy, 4C (Creative, Critical Thinking, Communicative and Collaborative), and Higher Order Thinking Skills (Ministry of Education and Culture, 2016). It makes HOTS is very important to be integrated into the learning process in the classroom.

In line with the importance of HOTS to be applied in the learning process, teachers are also required to implement HOTS-based classroom interactions. To increase the students' roles in the learning process, a teacher must be creative in asking questions that require them to think critically or high-level thinking. However, teachers and students have not fully applied to Higher Order Thinking Skills (HOTS) based questions. Besides, it was found that many students could not answer the teacher's questions due to ignorance of the answers, or indeed students have doubts about answering these questions and were not trained to face questions based on higher-order thinking skills. Some teachers cannot answer the questions from students because these questions are beyond the teachers' ability (Tan, 2007).

Likewise in learning English, several research results indicated that teachers are reluctant to apply HOTS-based learning. This is because teachers still think that the purpose of English learning is to make students master the four language skills, not to master critical thinking skills. Also, their reluctance to apply HOTS in the classroom is because most teachers do not understand how to integrate HOTS learning in English classes (Setyarini, 2018; Suhendi, 2015).

Research on classroom interaction has been done a lot and the research in the last 10 years regarding class interaction analysis is divided into several categories, namely interaction analysis that focuses on teacher and student conversations, English usage, teacher and student questions, movement patterns, feedback, and perception. First, some researchers conducted research aimed at analyzing teacher-students conversations in-class interactions. These studies use foreign language interaction analysis as a tool to assess and classify these types of conversations or interactions. The results of these studies are more or less the same (Elismawati, 2016; Dewi, et. al., 2016; Nisa, 2014; Kasim, 2004; Huriyah and Agustiani, 2018; Ulan, 2017; Wasi'ah, 2016; Nurpahmi, 2017; Nasir, 2019; Putri, 2015; Wibowo, et. al, 2017; Husna, et. al, 2015; Ramadhani, 2018). Second, Chayati (2018) conducted a somewhat different study from the first category, where the researcher only analyzed the use of English in-class interactions and not the type of teacher-student interaction. The results of her research showed that English is fully used by

teachers and students. Third, Matra (2014) also has research on class interaction analysis. Matra's research aims to analyze the types of teacher and student questions, especially the teacher's question technique which seeks to increase students' participation in the classroom. The results of the research indicated that the type of question technique that teachers often use was recall questions. Fourth, research conducted by Shalehoddin and Ashari (2016) aimed to find students' movement patterns in-class interactions. The results of this study indicated that there were 261 clauses analyzes and two types of "moves" in-class interactions, namely congruent and metaphorical moves. Fifth, there was a class interaction study conducted by Rahmat and Munir (2018) which aimed to analyze teacher's orally feedback on class interactions. The result of their research was the types of oral teacher feedback were asking, praising, clarifying, commenting, repeating, and correcting. Sixth, research on classroom interactions that focuses on teacher and student perceptions of classroom interactions has also been conducted. The results of this study indicated that perceptions of classroom interactions that occur were in the form of teacher-students and students-students interactions. Both teachers and students have a positive response to the interactions that occur (Ramli and Yohana, 2018; Sari, 2018). The research to be carried out by researchers has differences in terms of the focus of the research undertaken. The research that will be carried out focuses on the class analysis of teacher and student questions based on Higher Order Thinking Skills (HOTS). This study will be aimed to analyze teacher and student questions that occur in class and also perceptions.

Based on the phenomena that occurred and previous research, the current researchers are proposing research that focuses on enhancing HOTS-based English class interactions. This research will be conducted in the English class at the Elementary School Teacher Education study program, Bengkulu University. It because as a university that has the vision to prepare its graduates to face various global challenges, HOTS-based learning has been encouraged to be applied in the learning process. Lecturers are always required to implement appropriate teaching methods to make students think critically. The objectives of this research are as follows:

1. To identify the form of questions filed by teachers and students in the classroom following the framework of thinking mandated in the revised Bloom Taxonomy?
2. To explore the problems faced by lecturers in implementing HOTS-based learning processes?

Literature review
Class interaction

Class interaction is an activity that occurs in the classroom between the teacher and students as well as students and students. With this interaction, the teacher and students can achieve learning goals in the classroom (Sukmadinata, 2009: 3; Djamarah & Aswan, 2010). In the process of interaction, good communication is needed between the parties involved in the class. According to Setiadi and Kolip (2013), an interaction process occurs because of social contact and communication. Social contact can be in the form of physical and non-physical contact, while communication can be verbal and non-verbal communication. Both of these conditions can certainly have a positive influence on the learning development of the students.

There are three types of interaction patterns, namely one-way, two-way, and multi-way interactions (Fathurrohman, 2014). In a one-way pattern, educators become the center or source of learning, where educators give lectures to students without the interaction of students. A two-way interaction pattern is a pattern involving students and educators or vice versa and reciprocal communication occurs. While the multi-way interaction pattern is a more complex pattern of interaction, where there is the interaction between educators and students or vice versa and between the students themselves.

According to the Flanders Interaction Analysis Category System (FLCAS), the interaction that takes place in the classroom is divided into three parts, namely educator's talk, students' talk, and silence or confusion. Educator's talk is divided into several parts, namely receiving feelings, accepting ideas, praising, and asking questions, teaching, giving instructions, and criticizing. For students' talk, it is divided into two parts, namely the beginning of speaking and silence or confusion.

Concerning the type of class interaction, this study will only discuss the part of the teacher's talk that is focused on asking questions. The questioning activity is divided into two, namely questions from educators and students. Questions are divided into two types, namely questions that only require a yes or no answer and those that need more complex explanations. In this case, the questions to be researched lead to questions based on higher-order thinking skills, namely questions that lead to analyzing, evaluating, and creating.

According to Brown (1975), several components in the questioning technique must be mastered by teachers, namely clarity and coherence, pausing and pacing, directing and distributing, and also prompting and probing. Bloom, Brown (1975), and Cotton (2013) have similarities in determining the types of questions, namely high and low cognitive questions. According to Brown, there are 8 types of questions, namely compliance, rhetorical, recall, comprehension, application (lower), analysis, synthesis, and evaluation (higher). In compliance, students are expected to obey questionable orders. In the type of rhetoric, students are not expected to reply, so the educator answers his questions. Recall refers to whether students can restate what they have seen or read. The type of comprehension refers to whether the student understands what has been recalled. The application refers to whether students implement rules and techniques to solve problems. In the analysis, students are expected to be able to identify motives and causes and make conclusions and also provide examples to support the statement. In the synthesis type, students are expected to be able to make predictions, solve problems, or make interesting thoughts and ideas. In the evaluation, students are expected to be able to assess the quality of ideas or problem-solving. However in this research, according to Bloom's revision, there are six levels divided into two categories, namely high-level thinking skills (analyze, evaluate and create) and low (remember, understand and apply).

Higher-Order Thinking Skill (HOTS)

Higher-Order Thinking Skills (HOTS) is an idea put forward by Benjamin Bloom in 1956 which is known as Bloom's Taxonomy. In Bloom's Taxonomy, it does not only discuss HOTS but also Lower Order Thinking Skill (LOTS). However, this study only focuses on HOTS.

Higher-Order Thinking Skills (HOTS) is the ability to think that puts forward the way a person expresses ideas, whether in the form of questions, statements, or other matters critically, rationally, creatively, metacognitively, and reflectively. According to Bloom, a person's cognitive domain is divided into six parts ranging from simple to complex levels, namely knowledge, understanding, application, analysis, synthesis, and evaluation (Krathwohl, 2002). Based on the development of science and technology, it turns out that Bloom's idea of Taxonomy has not been revised by Lori W. Anderson and David R. Krathwohl (Brookhart, 2010). In this revision, Anderson only changed the cognitive aspect, where there were several changes in that aspect, namely remembering, understanding, applying, analyzing, evaluating, and creating. In this case, the six levels are divided into two categories, namely LOTS and HOTS. In the LOTS domain, it includes remembering, understanding, applying, while HOTS includes analyzing, evaluating, and

creating (Puspasari, 2018; Febriyani, et al. 2020; Directorate of Basic Education, Kemdikbud, 2017)

Especially for HOTS, there is an explanation of the three levels starting from analyzing to creating, namely (1) Analyzing means investigating information or studying information into ideas that are easier to understand and determining the relevance of the intended ideas, (2) Evaluating refers to to the assessment of the ideas or ideas put forward, (3) Creating is the ability of the mind to make something new that can be different from before.

Method
Research design

This research applied qualitative methods. Qualitative method is a research design that describes a phenomenon that occurs or data collected in the form of words or pictures. In other words, this research method describes the existing phenomena either natural or non-natural. This descriptive research aims to create a systematic, accurate, factual description of the facts and characteristics of the research subject (Creswell, 2012; Danim, 2002). Meanwhile, the research approach used was a case study. The characteristic of case study research is a qualitative research approach that can focus on individuals or groups of people who are involved together in an activity, and in this case study research the focus of this research is to describe in detail and comprehensively about what and how is going on the groups or individuals who are the research subject (Cohen, Manion & Morrison, 2000; Creswell, 2012). This research used a qualitative method with a case study approach because in this study we were focusing on an English class and explored in detail what questions arise and how the real problems occur during the learning process.

Research subject

The research subjects were selected based on purposeful sampling by the research objectives. In this case, the researchers chose an English class consisting of Non-English students. This group of students was selected based on their relatively weak English language skills so that they were categorized into students or beginner learners in learning English. In this English class, there are 30 students and one lecturer taught.

Research instruments

To answer the formulation of the problem in this study, namely to find out the form of questions posed by the teacher and students in the class according to the classification of the framework mandated in the revised Bloom Taxonomy, we used the observation sheet as the main instrument which contains classification points for the types of questions which arise during the learning process into a level of thinking based on revised Bloom's taxonomy (Anderson and Krathwohl, 2001) and interviews as a supporting instrument. Meanwhile, to answer the second research problem, namely the problems faced in the application of the HOTS-based learning interaction process, we used interviews as the main instrument and observation of student behavior as a supporting instrument.

Data sources

The data sources of this research were primary data and secondary data. The primary data sources of this study were 1 lecturer and 30 students who will interact by asking questions to the lecturer or vice versa. Besides, the data source of this research was video documentation of

lecturers and students when interacting in the classroom. Meanwhile, secondary data sources were from the results of interviews and observation sheets that had been distributed.

Data collection technique
        This study used observation sheets and interview as techniques for collecting data. The data collection techniques can be explained as follows:
1. Observation sheet
        This observation sheet has been divided into two parts, namely the lecturer's observation sheet, and the students' observation sheet. The observation sheet has been made systematically by considering the HOTS-based question indicators that have been arranged.
2. Interview
        The interview used in this research was a structured interview, where the researchers have arranged the questions properly and systematically under the research question. These interview questions had been addressed to lecturers and several student representatives who ask questions or the interaction process takes place in the classroom.

Data analysis technique
        The data analysis that the researcher did in this study used Spradley's (1997) theory, where the researchers analysed the data by summarizing the data from the observation and the interview. After that, the researchers did thematic analysis based on the research questions. The theme can be C1 until C6. In thematic analysis, coding was used to identify the essential data. Therefore, the date could be analysed easily by researchers.

Results and discussion
Results
        Referring to the questions of this research, the results of this study are divided into two parts, namely the form of questions posed by the lecturer and students in the class according to the classification framework mandated in the revised Bloom Taxonomy and the problems faced by lecturers in implementing HOTS-based learning processes. For more details, the results of this study can be described as follows:

The form of questions posed by the teacher and students in the class following the classification framework mandated in the revised Bloom Taxonomy.
Based on the results of observations and interviews conducted by researchers with the lecturer and students, the form of questions for the teacher and students, or in this case the lecturer and students have similarities in class according to the classification in the revised Bloom Taxonomy. The form of questions asked by the teacher to students and students to the teacher in the classroom can be seen in tables 1 and 2.

Table 1. Types of questions asked by the lecturer to students

No	Learning Steps	Questions Types					
		C1	Frq	C2	Frq	C3	Frq
1	Pre-activity	√	√	√	√		
	Brainstorming	√	√	√	√		
	Presenting the material					√	√

No	Learning Steps	C1	Frq	C2	Frq	C3	Frq
2	Whilst Activity					√	√
3	Post Activity						

No	Learning Steps	C4	Frq	C5	Frq	C6	Frq
1	Whilst Activity	√	√				
2	Post Activity			√	√	√	√

Table 1 shows that the lecturer asks questions that include remembering (C1), understanding (C2), applying (C3), analyzing (C4), evaluating (C5), and creating (C6). However, it can be seen in table 1 that the form of questions C1, C2, and C3 are in the pre-activity. For example, the lecturer asked *"Did you still remember your lesson about simple present tense in senior high school? Please, mention the types of verbs in English? Please, explain the function of the simple present tense!"* Also, the types of questions containing levels C3 and C4 were on whilst activity or during the main learning activity. For example *"Please, analyze the sentence that I have written on the whiteboard! Have you applied the material that I have taught you before?"* Why is the verb in simple present tense added by *s or es?* Furthermore, the type of questions C5 and C6 level was asked by the teacher during the post-activity. For example, *"What is your conclusion about our lesson today? What do you think about our lesson today? Please, write the story that contains simple present tense and present continuous tense!*

Table 2. Types of questions asked by students to lecturers

No	Learning Steps	C1	Frq	C2	Frq	C3	Frq
1	Pre-activity	√	√	√	√		
	Brainstorming	√	√	√	√		
	Presenting the material					√	√
2	Whilst Activity					√	√
3	Post Activity						

No	Learning Steps	C4	Frq	C5	Frq	C6	Frq
2	Whilst Activity	√	√				
3	Post Activity			√	√	√	√

Table 2 shows the types of questions asked by students to the lecturer. The question has referred to C1, C2, C3, C4, C5, and C6. At levels C1 and C2 there are still early learning activities, namely pre-activity and brainstorming. Students ask questions like, *"May I ask, sir? What is the difference between nominal and verbal sentences? What is the function of **to be**?"* For level C3, which is an application, students ask questions that are still at the beginning of learning which will lead to core learning. An example of a student question is *"How do we apply the do or does in a verbal sentence?"* Level C3 does not only appear in early learning activities but also in core learning activities. This is similar to the C4 level or analysis. An example of a student's question is *"Sir, why shouldn't am, is, are, be used in a verbal sentence of simple present tense? Sir, please teach me how to analyze the simple present tense and continuous tense in the task of analyzing text in the Jakarta Post!"* For levels C5 and C6, students ask questions at the post-activity stage. At the stage of evaluating and creating, the intensity of students asking is not as much as in playing activities. An example of the question is *"Sir, can you please give us a brief conclusion or tips and*

tricks so that we can quickly master today's material? Can you give me an example of writing a simple present tense essay? So, we have an illustration of how to write good and appropriate."

In addition to the form of questions, based on the results of observations made by researchers, the way the lecturer asks questions is also the center of researchers' attention, because the researchers also wanted to know how the lecturer asked questions. Teachers also often ask questions randomly to students as a form of inducement questions so that students are excited about attending lectures. The questions asked are also balanced in all lesson sessions such as pre, core, and final activities. Furthermore, the lecturer also sometimes points to certain students to answer questions posed to students. This is done when other students are unable to answer the questions asked by the lecturer.

The way the lecturer stimulates students to ask questions is one additional point in the observations made by the researchers. The results of the observations show that the teacher in the early lesson session provides an overview of the phenomenon of the material to be taught. It makes students motivated to ask about what material to be taught. Besides, the teacher also gave a somewhat incomplete explanation, so that students were motivated to ask some questions. This is done in the core learning activity session. Furthermore, the lecturer also tries to ask students by ordering students to read the material to be studied first and they make questions at home so that they can be asked during learning activities. Also, to stimulate students to ask questions, the lecturer also often provides text analysis and instructs them to ask questions.

Besides the observation sheet, the researchers also interviewed several lecturers and students regarding the type of questions asked. Based on the interview data obtained by the lecturer, the transcript of the interview can be seen in examples 1 and 2

Example of interview 1 results
Researcher   : Do you often ask LOTS questions instead of HOTS or vice versa?
Lecturer   : More to HOTS questions

Referring to example 1, lecturers tend to ask students questions that lead to HOTS, namely C4, C5, and C6 or analyze, evaluate, and create.

Example of interview 2 results
Researcher   : Do you differentiate when to ask LOTS and HOTS questions? Explain.
Lecturer   : Yes, it depends on the topic explained and the case studies. Usually, it starts with LOTS to "provoke" student responses then followed by HOTS questions to further improve their critical thinking power.

Example 2 shows that the lecturer has understood questions containing HOTS and LOTS. This proved that the lecturer was able to put the LOTS and HOTS questions into place. Lecturers use HOTS questions to improve students' critical thinking.

Interview data obtained from students related to the first research question can be seen in the interview transcript results in example 3.

Example 3
Researcher   : What kinds of questions do you often ask your lecturer?
Student 1   : I often ask questions about things I don't understand, such as asking analytical questions such as why the verb should be added with s or es and other questions.

Student 2   :   Ehhhh... when it comes to questions, I often ask questions that are difficult for me to understand when the teacher explains the material. But sometimes at the beginning of the lesson, I also ask questions, but not often. I often ask questions when the lecturer has entered the core material.

Example 3 shows that students are also able to provide questions that contain HOTS level, namely about analysis. In addition, students often ask questions about things that they do not understand when entering core lessons or when the lecturer explains the essence of the teaching material

Problems faced by lecturers in implementing HOTS-based learning process.
Based on the observations that have been made, the problems faced by lecturers in implementing the HOTS learning process are that teachers still have difficulty in stimulating students to ask questions that contain elements of C6. This is also since there are still students who remain silent when instructed to ask questions. Furthermore, lecturers still have difficulty to control the students who are noisy in class. Besides, there are still students who have difficulty answering the questions from lecturers that contain elements of analysis, evaluation, and creation.
Aside from observations, to support the answers to the second research question, the researchers used an interview guideline to interview the lecturer. The transcripts of interviews that have been conducted can be seen in examples 4, 5, 6.

Example 4
Researcher   : Are your students ready to be conditioned to think critically?
Lecturer   : Generally ready. But there are still some who are still passive.

Example 4 shows that there is a problem with students who are still being passive in class. In that sense, there are still students who cannot ask questions, either LOTS or HOTS. This indicates that lecturers should be more active in stimulating students to ask questions.

Example 5
Researcher   : What was the student's response when you asked a HOTS question?
Lecturer   : Most of them are responsive, although at the beginning of the meeting they are still reluctant in answering.

It can be concluded that the problems faced are similar to those in example 4, namely, there are still students who are not responsive in answering HOTS or LOTS questions asked by lecturers. However, this happened at the beginning of the meeting.

Example 6
Researcher   : What problems arise when you apply HOTS in asking questions to students?
Lecturer   : The problem, of course, is that there are students who can answer and the students who have not been able to answer properly and correctly. This is because students' abilities differ from one another.

Example 6 shows that the application of HOTS in the classroom still needs to be enhanced because there are still students who find it difficult to answer or ask questions referring to HOTS.

Aside from the interviews with the lecturers, the researchers also confirmed the students through interviews. This is to further ascertain the problem in the HOTS learning that has been done. The results of the interview can be seen in Example 7.

Example 7
Researcher   : Can you answer all the questions asked by the lecturer?
Student 1   : Not all, depending on the difficulty of the question
Student 2   : Not all, but mostly I can answer
Student 3   : Yes, Alhamdulillah, I can answer it. I do not know whether it is true or false, I will
*   try answering it first.*
Student 4   : No, because not all of the questions asked can be understood well
Student 5   : Some questions I can and some cannot. I am sometimes reluctant to answer
*   because I don't know the English*

Based on example 7, that is an indication of the problems faced by the lecturer in asking HOTS questions to students. It can be said that there are still problems in answering questions from lecturers because there are students who can answer and there are also students who cannot answer the questions.

Discussion
Based on the results of the research that has been done, two things must be discussed in this study, namely the form of questions asked by the teacher and students in the class according to the classification framework mandated in the Bloom Taxonomy revision and also the problems faced by lecturers in implementing the HOTS-based learning process.

The results of observations and interviews conducted by researchers with lecturers and students show that the form of questions asked by lecturers to students occurs at the beginning of learning until the end of learning. The questions posed have been oriented to Higher Order Thinking Skills (HOTS), namely at C4, C5, and C6 or analysing, evaluating, and creating. However, this HOTS question was asked by the lecturer to the students during the core activity until the closing activity because at the beginning of the lesson the lecturer still used LOTS questions. This finding is certainly in accordance with the theory put forward by Krathwohl (2002) and Brookhart (2010) regarding the level of questions from Bloom's Taxonomy starting from the level of remembering (C1) to creating (C6).

A similar thing also happened to the questions asked by students to the lecturers, where the students had applied LOTS and HOTS in asking questions starting from the initial learning activities to the final learning activities. However, for HOTS questions at level C6, namely creating, students have to be stimulated more by the lecturer to ask HOTS-based questions more often so that students can improve higher-order thinking. The findings on the form of questions asked by the lecturer to students or vice versa have differences with some previous studies. In previous research, Matra (2014) found that students were still minimal in asking questions which led to levels C4, C5, and C6. Likewise with the teacher's questions that asked LOTS more than HOTS. However, there are similarities in terms of the interactions that have been carried out by teachers or lecturers with students. Shalehoddin and Ashari (2016) found that the patterns of interaction carried out by lecturers and students or vice versa contain questioning activities which means that teachers or lecturers also apply LOTS and HOTS. The interaction between the two parties, especially in asking questions, can provide a positive perception of this interaction. This

is in line with the findings of Ramli and Yohana (2018) and Sari (2018), namely that with the interactions that occur in the classroom, the participation of teachers and students or lecturers and students increases, especially in discussion interactions in which there is a question and answer session. Setiadi and Kolip (2013) also argue that with interaction, direct communication occurs and it will increase understanding of the material taught by the lecturer or teacher.

With the interaction by asking HOTS-based questions, it does not mean that there are no problems faced by the lecturers in implementing HOTS learning. The results showed that there were still problems in the application of HOTS-based learning. The problem faced is the difficulty in stimulating students to ask questions that refer to level C6. In addition, there are still students who have difficulty answering HOTS-based questions from the lecturer. Furthermore, it was rather difficult for the lecturer to control a large number of students in the class at the beginning of the meeting. The problems found in HOTS learning are related to previous research conducted by Matra (2014) which also has similar problems in answering HOTS-based questions. In this case, the research was conducted at senior high school, some students cannot ask or answer HOTS-based questions. Another problem that arises is the use of English. Some students cannot answer questions because of their limited English language skills. This was also found in previous research conducted by Chayati (2018) where the participants were grade 1 of senior high school, namely the use of English in the classroom is one of the obstacles for students who wanted to answer questions from the teacher.

To overcome the problems faced by lecturers in the HOTS-based learning process, the lecturer also made several efforts, namely introducing an interesting phenomenon that had never been recognized by students before, forming study groups in the activity of observation and asking questions, providing a rather incomplete explanation so that students felt less understand and ask questions, ask students to read the material to be studied at home and when the activity takes place, they will ask questions, and provide case studies or text analysis so that they are provoked to ask questions and discuss. The efforts that have been made by lecturers in building class interactions, especially in building students' motivation in asking questions or other interactive activities in the classroom, are in line with previous theories and research from Nasir (2019) and Djamarah & Aswan (2010). Besides, Harmer (2007) has also emphasized the class interaction and management in the classroom that can help students learn a language that can also be applied in HOTS-based learning.

Conclusion

Based on the results that have been obtained, it can be concluded that the form of questions posed by lecturers and students has applied the Higher Order Thinking Skills (HOTS) principle from the core learning activities to the final learning activities. The form of the question is in the form of levels C4 (Analyzing), C5 (Evaluating), and C6 (Creating), but in the form of creating questions, students still need to increase the frequency in asking. In addition, in HOTS-based learning, the problem that arises is the difficulty in stimulating many students to ask questions at level C6 or creating. Of course, this will also have an impact on activities to answer the lecturer's questions based on HOTS. In this case, there are still students who have not been able to answer questions from lecturers that require higher-order thinking.

Declaration of conflicting interest
The authors state that there is no conflict of interest concerning the publication of this paper.

References
Brookhart, S. (2010). *How to assess higher-order thinking skills in your classroom*. Alexandria, VA: ASCᴅ
Chayati, S.R. (2018). An analysis of using english in classroom ineraction. *Project*. 1 (1). 19-26.
Creswell, J. W. (*2012). Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson.
Cotton, K. (2013). Questioning strategies: The schooling practices that matter most. In the Northwest Regional Educational Laboratory (NWREL). http://www.nwrel.org/scpd/sirs/3/cu5.html.
Danim, S. (2002). *Menjadi peneliti kualitatif rancangan metodologi, presentasi, dan publikasi hasil penelitian untuk mahasiswa dan peneliti pemula bidang ilmu sosial, pendidikan dan humaniora*. Remaja Rosdakarya.
Dewi, G.K.U.U., et al. (2016). Analisis interaksi guru dan siswa dalam pembelajaran bahasa Indonesia di kelas 1 SDN 1 Nawa Kerti. *e-Journal PGSD Universitas Pendidikan Ganesha*. 4(1), 1-10.
Direktorat Pendidikan Dasar Kemendikbud. (2017). Alasan munculnya soal hots. Diakses dari https://www.domarai.com/2019/03/alasan-munculnya-soal-hots.html?m=0
*Djamarah, S.*B dan Aswan, Z. (*2010). Strategi belajar mengajar*. Rineka Cipta
Elder, L and Paul, L. (2003). Critical thinking: Teaching students how to study and learn. *Journal of development of Education*. 27 (2), 36-38.
Elismawati. (2016). Classroom interaction analysis in the EFL speaking class. *Journal Prolingua*. 5 (1). 25-32.
Fathurrohman, P. (2014). Strategi Belajar Mengajar: Strategi mewujudkan. pembelajaran bermakna melalui pemahaman konsep umum dan islami. Redaksi Refika Aditama.
Febriani, R. B. Satinem., Nurnaningsih., Haryani., Syafryadin, Noermanzah.(2020). Conveying an author's intention to efl readers: The meaning of "The Road Not Taken" by Robert Frost. *International Journal of Innovation, Creativity and Change (IJICC)*, *13*(4), 172.
Febriyani, R.A., Yunita, W., Damayanti, I. (2020). An Analysis on Higher Order Thinking Skill (HOTS) in Compulsory English Textbook for the Twelfth Grade of Indonesian Senior High Schools. *Journal of English Education and Teaching*. 4(2), 170-183.
Harmer, J. (2007). *The practice of english language teaching 4th Edition*. Longman.
Huriyah, S & Agustiani, M. (2018). An analysis of English teacher and learner talk in the classroom interaction. *Linguistic, English Education and Art (LEEA) Journal*. 2(1). 60-72.
Husna, A.H., Hartono, R., & Sofwan, A. (2015). Teacher's and students' talks and their nonverbal communication in the classroom interaction. *English Education Journal*. 5(1). 1-8.
Kasim, U. (2004). Classroom interaction in the English Department speaking class at State University of Malang. *JURNAL ILMU PENDIDIKAN*. 3 (3). 1-11.
Krathwohl, D. R. (2002). *A Revision of Bloom's Taxonomy: An Overview. Theory into Practice*, 41(4).
Lomi, A. N. K., & Mbato, C. L. (2020). Struggles and Strategies in Constructing Professional Identity: The First-Year Teaching Experiences of Indonesian EFL Novice Teachers. *Journal of English Education and Teaching*, *4*(1), 1-19.

Matra, S.D. (2014). Teacher questioning in classroom interaction. *Celt*. 14 (1). 82-99.

Nasir, C, et al. (2019). A qualitative study of a teacher talk in an EFL classroom interaction in Aceh Tengah, Indonesia. *Indonesian Journal of Applied Linguistics (IJAL)*. 8(3). 525-535.

Nisa, S.H. (2014). Classroom interaction analysis in Indonesia efl speaking class. *English Review: Journal of English Education*. 2(2). 124-132.

Nurpahmi, S. (2017). Teacher talk in classroom interaction. *Journal of English Education*. 3(1). 35-43.

Puspasari, D. (2018). Evaluasi Pembelajaran. Diakses dari https://slideplayer.info/slide/12875720/

Putri, D.S. (2015). The analysis of teacher talk and the characteristic of classroom interaction in English as foreing language classroom. *Journal of English and Education*. 3(2). 16-27.

Rahmat, A & Munir, U.M. (2018). Teacher's verbal feedback in the classroom interaction. *METATHESIS*. 2(1). 122-146.

Ramadhani, P. (2018). *Classroom interaction in a speaking at the eight grade of junior high school 2 Colomadu Karangayar*. Published Thesis. Surakarta: Universitas Muhammadiyah Surakarta.

Ramli, M & Yohana, M.P. (2018). Classroom interaction: teacher and students perception on dialogue in primary science class. *EDUSAINS*. 10(1). 127-134

Saputra, H. (2016). *Pengembangan mutu pendidikan menuju era global*, cv. Smile's Indonesia Institute.

Sari, M.N., et al.(2018). Classroom interaction patterns and teachers-students' perceptions on english classes at SMAN 2 Bukittinggi West Sumatera. *Komposisi: Jurnal Bahasa, Sastra , dan Seni*. XIX (2). 149-158.

Sardiman. (2011). Interaksi dan motivasi belajar mengajar. PT Rajagrafindo.

Setiadi, E & Kolip, U. (2013). *Pengantar sosiologi politik*. Kencana.

Setyarini, S., Muslim, A. B., Rukmini, D., Yuliasri, I., &Mujianto, Y. (2018). Thinking critically while storytelling: Improving children's HOTS and English oral competence. *Indonesian Journal of Applied Linguistics*, *8*(1), 189-197.

Shalehoddin & Ashari, E. (2016). "Move" analysis in classroom interaction. *Journal Anglo-Saxon*. 7 (1). 73-81.

Spradley, J. P. (1997). *Metode Etnografi*, Terj. Elizabeth, Misbah Zulfa. Tiara Wacana.

Suherdi, D. (2015, November). English for 21st century Indonesia. In English Education International Conference (EDUTICON)

Sukarni, S & Ulfah, S. (2015). An analysis of teacher and student talk in the classroom interaction of the eight grade of SMP Negeri 18 Purworejo. *Journal Vision*. 4(2). 261-277.

Sukmadinata.(2009). Landasan Psikologi dan Proses Pendidikan. PT. Remaj

Supriyadi. (2011). *Strategi belajar dan mengajar*. Cakrawala Ilmu.

Tan, Z. (2007). Questioning in Chinese University EL classroom. *Regional Language Centre (RELC) Journal*. 87-102.

Ulan, D.A. (2017). An analysis of classroom interaction in the teaching-learning process of speaking at tenth grade students of SMK AL-Husain Keling in the academic year of 2017/2018. *Jurnal Edulingua*. 4 (2). 94-100.

Wasi'ah, N. (2016). A study of teacher talk in classroom interaction at an islamic senior high school. *OKARA Journal of Language and Literature*.1(1). 29-43.

Wibowo, Y.S., et.al. (2017). Classroom interaction analysis in speaking class at University of Nusantara PGRI Kediri. *Simki-Pedagogia*. 1(3). 1-9.