ENGLISH TEACHERS QUESTIONS IN PROMOTING STUDENTS THINKING SKILL IN SMK NEGERI 10 MEDAN

AN ARTICLE

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By

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This study deals with teachers’ questions in promoting students’ thinking skill. The objectives of this study were to reveal the types of questions based on taxonomy that teachers used in classroom communicative practices and how the teachers employed strategies to stimulate students’ responses towards the teachers’ questions. A descriptive qualitative design was used in this study. The data was collected by observing two teachers in two classes of grade twelve. The findings of this study showed that the teachers used all of questions types. The type of teachers’ questions which were commonly used by the two teachers is Productive Questions. The cognitive domain which can be achieved from productive categories is creating level. Teacher A mostly used evaluative question. The cognitive domain which can be achieved from evaluative category is evaluating level. While, Teacher B mostly used productive questions. The cognitive domain which can be achieved from productive category is creating level. Furthermore, the less questions appearing is Empirical Question. So, the researcher can conclude that teachers’ questions can promote higher order questions instead of lower order questions. In addition, the two teachers used some strategies to stimulate students’ responses towards the teachers’ questions. Teacher A used rephrasing strategy, simplification strategy, decomposition strategy, and probing strategy, while Teacher B used rephrasing strategy, repetition strategy, and decomposition strategy.

**Keywords : Teachers Questions, Cognitive Domain, Question Strategy**
INTRODUCTION

Background of the study

Question is defined as any interrogative sentence which is uttered by the speaker in order to get information from the hearer (Erlinda & Dewi, 2014). In classroom setting, question can be defined as instructional cue or stimuli that helps teacher to convey the content of lesson that need to be learnt and direction on what should the students do and how the students do it (Cotton, 1988).

Asking question is an essential element in the learning process. Questions could help students to learn by linking the first knowledge owned to the new information; accordingly, they could understand what they have learned. Besides, the questions from students play an essential role in meaningful learning and could open their mind to improve the quality of thinking, to understand the concept and to put forward anything they want to know (Almeida, 2012).

Moore (2001) suggests a classification of questions based on taxonomy of learning. They are factual questions, empirical questions, productive questions, and evaluative questions. Factual questions are questions used to simply recall information (e.g. What is the name of the text?). Empirical questions refer to questions which students are asked to integrate or analyze given or recalled information (e.g. How do you know?). Productive questions lead students to think creatively and produce something unique (e.g. How do you use this expression to look for your friend getting lost?). Evaluative question is a type of questions in which students make judgments or express values (e.g. Which method is the most suitable?).

Wu (1993), the five questioning strategies that teachers should use to generate verbal responses from students include: rephrasing (a question is expressed in another way), simplification (this may be regarded as a kind of rephrasing by means of which a
situation is simplified so that students can cope with it), repetition (a question is repeated in the hope that a verbal response will be elicited), decomposition (an initial question is decomposed into two or more parts so that an answer may be obtained), and probing (a question is followed up by one or more students so that the teachers can solicit more responses from a student).

Kratwohl (2002), the co-author of Bloom’s manuscript, attempts to improve taxonomy and updates the framework in terms of advances in cognitive psychology and some confusing parts in the concept. He, then, recommends 6 cognitive domains, which are actually associated with the original Bloom’s work. They are remembering, understanding, applying, analyzing, evaluating, and creating.

Thinking skill is ability to process mental operation includes knowledge, perception and creation (Mayer, 1983; De Bono, 1976). Suriyana (2004) states that thinking skill is an ability in using mind to find meaning and comprehension on something, exploration of ideas, making decision, problem solving with best consideration and revision on the previous thinking process. Thinking skills is a knowledge discipline that can be learned and practiced until form norm or experience (Sharifah, 2004). Thinking skill can be divided into two categories; LOTS and HOTS (Anderson and Kartwohl, 2002).

From the preliminary research that was conducted on March, 4th at SMKN 10 Medan, the researcher found two problems on students’ thinking ability. First, the limitation of questions that were given by the teacher only concerned on remembering and understanding steps. Second, the teacher did not use question strategy to stimulate the students to achieve the highest level. The questions only focused on recall the information.

By realizing the problem of lack of HOTS in classroom, Mishra & Kotecha (2016) observe that the most of the question were structured only to assess Lower Order Thinking Skills (LOTS). The fact shows that EFL teachers still find difficulties in making HOTS. Besides, the lack of critical reasoning was also gained from a study conducted by Djiwandono (2013) that describes Indonesian students as “lacking critical attitude and
ignorant of the principles of analysis and critique”. They are able to comprehend things, to memorize abundant formula but they do not have enough competence to analyze the given phenomena. Students might be good at comprehend texts but then find it hard to deal with ‘how’, ‘why, and ‘what if’. Those three questions actually enable students to analyze, not just merely to select the answer

However, types of question based on taxonomy that teachers used to promote students thinking skill not yet known since there are no explanations by the previous researcher about teachers questions based on taxonomy becomes successful in helping teachers to promote students thinking skill. Furthermore, there are no expalanation by the previous study about question strategies which can help teachers to stimulate students more respond to teachers questions

In this paper, the researcher was interested to do a research on teachers’ questions in promoting students thinking skills. The researcher also interested to do reaserach on question strategies to stimulate students more respond to their teachers questions It was assumed that the teachers’ questions can stimulate the levels of students thinking skills and question strategies can stimulate students more respond to teachers question

**REVIEW OF RELATED LITERATURE**

*Theoretical Framework.*

Cotton (2012) states that question is any sentence which has interrogative form or function. Aizikovitsh et.al. (2011)describe question as an inquiry expression which encourages or asks for response or rejoinder. Richard Nordquist (2013) defines: “Question is a type of sentence expressed in a form that requires (or appears to require) an answer. Also known as an interrogative sentence, a question is generally distinguished from a sentence that makes statement, delivers a command, or expressed an exclamation.”
Moore (2001) suggests a classification of questions based on taxonomy of learning. The taxonomy is firstly proposed by Bloom (1956: 18) and later revised by Anderson and Kratwohl, 2002. They are factual questions, empirical questions, productive questions, and evaluative questions. Factual questions are questions used to simply recall information (e.g. What is the name of the text?). Empirical questions refer to questions which students are asked to integrate or analyze given or recalled information (e.g. How do you know?). Productive questions lead students to think creatively and produce something unique (e.g. How do you use this expression to look for your friend getting lost?). Evaluative question is a type of questions in which students make judgments or express values (e.g. Which method is the most suitable?).

Kratwohl (2002), the co-author of Bloom’s manuscript, attempts to improve taxonomy and updates the framework in terms of advances in cognitive psychology and some confusing parts in the concept. He, then, recommends 6 cognitive domains, which are actually associated with the original Bloom’s work. They are remembering, understanding, applying, analyzing, evaluating, and creating. It is not that only the revised taxonomy changed from nouns into verbs. Kratwohl (2002) says that it suggests a new hierarchical order and provides concise representation of relative emphasis in educational practice. Some years later, Marzano and Kendall (2007) suggest a new taxonomy which consists of retrieval, comprehension, analysis, knowledge, utilization, and includes metacognition—a newly-introduced term, and self system thinking. The taxonomy divides each category into sub-taxonomies based on process of thinking. Though it is recently updated, but the research using this framework has not been widely used. Considering all taxonomies of learning above, the researcher used the revised Bloom’s taxonomy which is proposed by Anderson and Kratwohl. It is still associated with Bloom’s original work but has already been updated. Kratwohl (2002) suggests that there are six hierarchical orders of taxonomies. They are remembering, understanding, applying, analyzing, evaluating, and creating.
Strategies in questioning are used to give guidance for teachers in giving questions to students. Kerry (as cited in Tekene, 2006) states that types of questions which are used and formulated by teachers are very important processes for students’ achievement and their level of engagement in teaching and learning. Unclear questions will not make them participate well; furthermore, students’ verbal responses are not elicited well. Teachers may use other techniques to encourage students to respond to their questions by rephrasing the questions or changing the complex questions into simple and understandable constructions (Cole & Chan, Ekasingh, Wu as cited in Dumteeb, 2009).

According to Wu (1993), there are a range of questioning strategies that can elicit students’ speaking practices. Wu’s taxonomy of questioning strategies is vital and effective to extend students’ verbal responses. As proposed by Wu (1993, pp. 55-56), the five questioning strategies that teachers should use to generate verbal responses from students include: rephrasing (a question is expressed in another way), simplification (this may be regarded as a kind of rephrasing by means of which a situation is simplified so that students can cope with it), repetition (a question is repeated in the hope that a verbal response will be elicited), decomposition (an initial question is decomposed into two or more parts so that an answer may be obtained), and probing (a question is followed up by one or more students so that the teachers can solicit more responses from a student).

RESEARCH METHODOLOGY

The research design in this study was descriptive qualitative since this study aimed to describe the strategy that has been applied by the English teacher in teaching writing skills. This study intended to find out question types that teachers used in classroom communicative practices and described question strategies that teachers used in stimulating students to be more respond to teachers questions.
In this descriptive qualitative study, the data collections are in the form of statements or words (Tanzeh, 2004). In this study, the data was all of teachers questions in promoting students thinking skill. The source of data was taken from spoken language in teachers questions produced by two English teachers in 6 meetings of English teaching and learning at SMK Negeri 10 Medan.

In this study, to find the data related to the research problems, the researcher used observation, data sheet, and transcript

The Form of Data Sheet of the Types of Questions and Cognitive Domains Embedded in Teachers’ Questions Performed in Classroom Practices

<table>
<thead>
<tr>
<th>Code</th>
<th>Data</th>
<th>Types of Question</th>
<th>Cognitive Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FA</td>
<td>EM</td>
</tr>
</tbody>
</table>

Notes:
Data: Teachers spoken question
Types of Questions
FA: Factual
EM: Empirical
EV: Evaluative
PR: Productive
Cognitive Domain
RE: Remembering
UN: Understanding
AP: Applying
AN: Analyzing
EV: Evaluating
CR: Creating
Techniques of Analysis Data

In the data analysis, the researcher applied content analysis to find out types of teachers’ questions uttered in classroom practices. Given (2008) says that content analysis is a logical process of classifying qualitative data into a group of particular conceptual classification to analyze the pattern. The questions were classified into types of questions proposed by Moore (2001) and cognitive domains proposed by Bloom (1956) which are revised by Krathwohl (2002). Steps of techniques of analysis data are identifying, interpreting, discussing and concluding.

FINDINGS AND DISCUSSION

Based on observation which was conducted with two English teachers about teachers questions, there four teachers question types that teachers used in communicative practices, they are:

<table>
<thead>
<tr>
<th>No.</th>
<th>Types of Question</th>
<th>Occurrences</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Teacher A</td>
<td>Teacher B</td>
</tr>
<tr>
<td>1.</td>
<td>Factual Question</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>2.</td>
<td>Empirical Question</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>3.</td>
<td>Evaluative Question</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>4.</td>
<td>Productive Question</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>30</td>
<td>36</td>
</tr>
</tbody>
</table>

As it is shown in the table, there are 68 questions performed by the teachers. All 4 types of questions are appeared. Factual questions are the most frequent questions, which appear 15 times. Empirical questions appear 13 times, evaluative questions appear 18 times and productive questions appear 20 times. In teaching English, the teacher question in
classroom interaction is important to develop students’ interest and curiosity, to get students’ attention, to evaluate students’ preparation and, to develop students” critical thinking. This study is very helpful in teaching and learning process to improve student achievement in learning English.

The data analysis was indicated from the types of questions analysis of two teachers did during teaching and learning process in English classroom, these can be seen in the observation sheet and interview sheet. The four teacher question types (factual question, empirical question, evaluative question, and productive question) based on Moore theory occurred while teaching and learning.

There were two teachers as the object of this research. Both of teachers applied the four teachers question categories to promote students thinking skill. The most frequent question appearing is the productive questions. The cognitive domains embedded in the productive type are creating. These domains belong to the higher order thinking skill. It implied that teachers’ questions promote higher order questions instead of lower order questions.

It is different with previous study; based on the observation, the most frequently type of questions that were used by the teacher at lower grade was a low-level question, such as a question to understand. For teachers in higher grades, the tendency of the type of question is remembered the question. Both types of teacher questions provide a low-level impact on students' thinking skills (Meida.A.A,2020). Compared to another study, convergent questions were the commonly used by the teacher (60%) than procedural (13.3%) and divergent (26.7%) questions. The teacher was commonly used convergent questions for encouraging students to answer based on the material (Amanda, 2020).

While, for the first problem of study, the teachers used all of types question to promote students thinking skill. Those covered by applied the two teachers in six meetings. Productive question was the most questions used by the teachers. The cognitive domain which could achieve from productive categories was creating level. The teachers were more focused on higher order question than lower order question. Teacher A most used
evaluative question, while teacher B most used productive question. Furthermore, the less question appearing is Empirical Question.

Based on observation conducted with two English teachers about teachers question, there five question strategies that teachers used in communicative practices, they are:

<table>
<thead>
<tr>
<th>No.</th>
<th>Question Strategies</th>
<th>Teachers</th>
<th>Times</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>1.</td>
<td>Rephrasing Strategy</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2.</td>
<td>Simplification Strategy</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>3.</td>
<td>Repetition Strategy</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4.</td>
<td>Decomposition Strategy</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5.</td>
<td>Probing Strategy</td>
<td>✓</td>
<td>x</td>
</tr>
</tbody>
</table>

As it is shown in the table, there are five question strategies performed by the teachers. Teacher A used all of strategies. Decomposition strategy is the most frequent strategy, which appear 8 times. Probing strategy appear 4 times, rephrasing strategy appear 2 times, simplification strategy appear and repetition strategy appear 3 times. While, Teacher B used three question strategy, they are rephrasing strategy, repetition strategy, and decomposition strategy. Decomposition strategy is the most frequent strategy, which appears 10 times.

For the second problem, the teachers used questioning strategy to promote students thinking skill. Teacher A used rephrasing strategy, simplification strategy, repetition strategy, decomposition strategy, and probing strategy. Students in class A had limitation in vocabulary. Teacher A solved that problem by using all of the strategies so that the students could answer her questions. While, Teacher B used rephrasing strategy, repetition strategy, decomposition strategy, Teacher B did not use simplification and probing strategy because students ability in class B is better than students ability in class A. Students in class B did not need a clue to respond teacher’ questions. Teacher B did not need to call students’ name
to answer the question because most of the students have tried to answer Teacher B questions.

CONCLUSIONS AND SUGGESTIONS

Conclusions

Based on the data analysis dealing with the types of questions, the teacher performed four types of questions. They are factual questions, empirical questions, evaluative questions, and productive questions. The most frequent question appearing is the productive questions. The cognitive domains embedded in the productive type is creating. These domain belong to the higher order thinking skill. It implied that teachers’ questions promote more higher order questions instead of lower order questions.

The teachers used some strategies to promote students thinking skill. Teacher A used rephrasing strategy, simplification strategy, repetition strategy, decomposition strategy, and probing strategy. While, Teacher B used rephrasing strategy, repetition strategy, and decomposition strategy. Teacher B did not used all of questioning strategies. It was because students’ ability in class B was better than class A. That was why students B did not need to give clue and ask other students to answer the question.

Suggestions

To both of English teachers in SMK Negeri 10 Medan should be able to vary types of questions in the learning process. Teacher A mostly used evaluative questions; it means that the teacher focused in improving evaluating levels. Teacher A should also be able to use more productive questions so that students can always make their own sentences or texts. The teachers used the least amount of empirical questions. Both of teachers can use empirical questions more often so that students can more apply and analyze the things related to their lessons.
For the other researcher who wants to conduct this research, the results of this study can be used as a reference or relevant study related to the teacher’s questions to promote students thinking skill.

REFERENCES


