

TEACHER'S QUESTIONING STRATEGIES IN SCAFFOLDING STUDENTS' LEARNING AT UNIVERSITY LEVEL

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ABSTRACT

It is acknowledged that teacher questions can scaffold students in various educational purposes (Blosser, 2006; Bond, 2007; Cotton, 2007). Simple to the complex level of the question was delivered in order the discussion can run smoothly (Bloom's taxonomy level, 1956). Despite this, a variety of good questions will not guarantee that the interactive classroom will be created, the teacher needs to employ rephrasing, redirecting, probing, and reinforcement in her questioning (Goodwin et al., 1992; Milawati & Suryati, 2019). However, practically, teachers ask a large number of questions, which somehow they fail in doing questioning strategies (Wragg and Brown, 2001 p.28). This conceptual article describes the teacher's questioning strategies in facilitating students' learning and promoting their thinking skills. It highlights the fact that a teacher who has initially lack the ability to teach higher thinking skills can make considerable progress in terms of applying her knowledge in the classroom (Zohar & Dori, 2011). This article ends by arguing for some changes that need to occur in effective classroom questioning, including the need to give a more substantial description of the extent of the implementation of teacher questioning strategies.

Keywords: *Rephrasing, Redirecting, Probing, Reinforcement, and Level of Questions.*

INTRODUCTION

One of the most significant attempt to support students' with their learning activities is by implementing the teacher's questioning strategy. The strategy is described as instructional cues to communicate the learning materials and as well as compassing for what and how the students would perform on it. Experts believe that teacher questions can assist students in various purposes in the teaching-learning process (Blosser, 2006; Bond, 2007; Cotton, 2007). Encouraging students in giving out a positive response for the questions inappropriately is one of the many ways used in teachers' questioning strategy. However, achieving such a response is a challenge on its own. The ability of a teacher in creating ethical and fair questions, as well as the strategy of its delivery is necessary. Wragg and Brown, therefore, have mentioned that there is no guarantee that engaging classrooms can be easily created even if various good questions have been given to the classes (2001, p. 28). The paradox of this situation is like two sides of a coin. On one side, questions have become an integral part of teaching-learning process. Still, at the same time, on the

other side, the inability of its efficient delivery only creates failure and engaging classroom is difficult to achieve.

Although, extensive research has been done to explore and identify effective teacher's questioning in classroom teaching and learning activities which have been conducted at the university level (e.g. Bonne and Pritchard, 2009; Cakmak, 2009) and the relationship between questioning behaviour and students outcomes (e.g. Cotton, 2000; Shen and Yodkhumlue 2010. Even though challenges like teachers' ineffective communication to continuously apply questioning techniques, researchers argue that question classification taxonomies will assist teachers in matching the questions they ask with the thinking that they are trying to develop (Hannel, 2009; Vogler, 2005; Wimer, Ridenour, Thomas, & Place, 2001). Other researchers also claim that the taxonomies can support teachers in formulating questions and clarifying instructional objectives (Allen & Tanner, 2002; Kastberg, 2003).

Despite the extensive research such as the statements mentioned above, they're limited study on teacher's questioning strategies and the level of the questions. Teachers can expand their questioning strategies by familiarizing themselves with various levels of questions to assist students in thinking more creatively and critically. Teachers also need to understand the elements of verbal questioning and are willing to practice them. Significantly, this paper describes in greater depth focusing on parts of questioning strategies primarily the discussion on the classroom questioning, namely; rephrasing, redirecting, probing, and reinforcement as proposed by Goodwin et al. (1992). Concerning the four strategies, this study also discusses the six-level of questions presented by Bloom's taxonomy level (1956), which are knowledge, comprehension, application, analysis, synthesis, and evaluation. The purpose of the study is to identify and analyze more comprehensively the cause of the ineffective teacher's questioning strategies and to give a compelling description of the level of questions and the strategies that teachers employed.

Teacher's Questioning in ESL Classroom

It is a widely known fact that in the ESL classroom, questions plays a significant role of teaching-learning activities. Questions are used as a tool to evaluate learning purposes. In a more detailed description, Cotton stated that

teachers' questions are described as stimuli to convey learning content elements and as well as its direction of what they are about to and how they will do it (2000). Besides, Pica cited in Lynch (1991:202) stated that, since, in real life, language uses primarily to communicate information, then the classroom language should reflect teachers' needs to change his/ her behaviour in asking questions rather than being a place why teacher ask a question which serves mainly to test students' ability functions in the classroom environment, fulfil the objectives of the classroom curriculum and provide practice in language production. It implies that the teacher's question is mainly needed in the teaching-learning classroom. Therefore, in asking questions, the teacher has to be aware of the classroom environment so that he/ she can stimulate their students to become more actively involved in the teaching and learning activities.

Moreover, it is also supported by Morgan and Saxton in Brualdi (1998) in "Classroom Questions: Practical Assessment, Research & Evaluation", that there are several reasons why teacher inquires questions towards the students. Firstly, it helps teachers to encourage students to be more active in classes. Secondly, students have the opportunity to express thoughts and ideas while responding to the questions freely. Thirdly, questioning students serve as the peer evaluation process so students can listen to each other's responses. Fourth, questioning help the teachers to manage their lessons and as well as students' classroom behaviour. Lastly, the strategy can be used to identify and evaluate learning and also to modify the course as necessary.

From the above descriptions, it can be concluded that the use of teacher's questioning becomes very crucial to create a better classroom atmosphere. However, it can be achieved, since the teacher can cue and stimuli the students to think and formulate their ideas to evoke the right answers.

Teachers Questioning in Scaffolding Students' learning

Questioning is a significant one of the most known modes of teaching for the act of asking questions with the potential to facilitate learning greatly. According to Littlewood (1995:67), asking the question is the most popular technique for providing a purpose for listening, which prompts learners to listen to facts or to make an inference of what they hear. In line with this, Freiberg and Driscoll (1992: 224-225) mentions several advantages of teacher questions in

classroom learning. First, the teacher could check for students' understanding. Second, questioning could give an indication of the effectiveness of instruction for the whole class. Third, the level of dialogue and thinking is raised when higher-level questions (opinions, synthesis, and evaluation) are used in the classroom. Fourth, it could increase student involvement in learning. Fifth, the combination of questions and discussion will improve students' oral and social communication skills. Sixth, it also allows students to hear peer responses to the same question and compare answers with their own. Seventh, it provides students with opportunities to review recently taught information. Last, it cues students about what the teacher feels is necessary.

Further, Cotton (2000) in Classroom Questioning mentions a variety of purposes of teachers' classroom questions. Among many that were mentioned including the development of students' interest and motivation encouraging them to be more actively involved in classroom, evaluating students' preparation and checking on their homework completion, developing critical thinking skills and inquiring attitudes, reviewing and summarizing previous lessons, nurturing students' insights, assessing achievement of instructional goals and objectives and stimulating students for independent study.

Another view comes from Lynch (1991:202-204), which mentions the benefits of teacher's questions into three categories; linguistics, interactional, and psycholinguistics. In terms of linguistics, teacher's questions mainly used in assessing students' ability to perform in the classroom environment, fulfilling the curriculum objectives, and providing practice in language production. Meanwhile, interactionally, it concerns how questions (and the questioner) exert social control. Whether the teacher asks display or real question is not necessarily the primary criteria, what essential is how control over discourse is maintained or made available to the learners. Then, in the view of psycholinguistics, teacher's questions deal with what has to do with the mental processes involved in foreign language comprehension. It is inevitable that at less than native proficiency levels, will be found some difficulties in understanding written or spoken the second language.

Questioning Strategies

Sometimes teachers get too deep and involved in asking questions that they give limited time to analyze why and how they do it. It seems such a natural

technique. However, on the spot analysis, while the learning process happens, the result must be more candid or even more surprising. They would possibly discover the only surface of the activity that questions are designed to determine only if a student understands a particular item of information or not. Therefore, to avoid such kind of condition, the teacher has to use effective questioning strategies.

Regard to the effective questioning strategies. James (2006) in his article about A Good Questioning Technique mentions the characteristics of a good questioning technique as follow: (1) allows the teacher to collect information on students' knowledge level, (2) actively involve all students in learning, (3) develop students' communication skills and confidence (4) encourage students to become self-directed or independent learners, and (5) recognize or reward students' achievements.

Structuring, pitching and putting, directing and distributing, Pausing and pacing, Prompting and probing, Listening to replies and responding, and Sequencing are the seven tactics in asking questions mentioned by Wragg and Brown (2001:28-36). Further, Sadker and Sadker in Cooper (2010: 110) promote seven habits of highly effective questioners. Fewer questions, better questions, use prompting and probing, wait time, selecting students, and feedback. In line with this, Mayberry and Hartle (2003:94) define questioning strategies as a way to encourage students' engagement by providing them with the right words and flexible time for composing their response. Besides, appropriate questions are crafted with care and attention to voice articulation, word emphasis and choice, timing, the students' prior knowledge and challenges, the lesson's objective, and the context in which the questions are raised.

Another questioning strategy is also promoted by Fisher (2009:34-35). The seven effective questioning strategies by Fisher such as sequencing a set of questions, pitching appropriately, distributing questions fairly, prompting and probing, listening and responding proactively, challenging right as well as wrong questions and using written question effectively.

From those statements, it is clear that the teacher should have known how to use questions effectively by considering what type of question and strategies they have to use in asking questions. Thus, the students can easily respond perhaps what the teachers expect could be gained. Related to those questioning strategies, the

protocols of questioning strategies proposed by Goodwin *et al* (1992) in which mainly focus on rephrasing, redirecting, probing, and reinforcement.

Rephrasing

Sometimes students are quiet because they simply do not know what the teacher is asking. Consequently, the teacher rephrases his or her question, when they have already waited for students' for so long. According to Goodwin *et al.* (1992), rephrasing is used to aid students to comprehend a question or to request a better and more appropriate response by rephrasing or rewording the question to make it more transparent. Besides, it is also done by providing additional information that students able to respond and give the answer. Last, it is done by breaking the questions down into more manageable parts.

Similarly, Cashin (1995) in his article about "Answering and Asking Questions" also mentions two purposes of rephrasing. It is used to ensure that the entire class hears the questions and also to check students' understanding of the teacher's question. The following is the example of a teacher rephrasing his or her questions in discussing "an advertisement". In this case, the teacher rephrases her questions by providing additional information.

T: Will I get the promotion I want?

Ss: eerr...

T: Okay, what do you need to do to get the promotion you want?

In brief, by rephrasing questions, it will be easier to be understood by the students. However, as a teacher, he/she needs to concern about the way they substitute their questions by considering the vocabulary that suitable to the level of the students.

Redirecting

If the first student asked cannot answer the question, after a pause, the teacher redirects it to a different student or set of students to keep students alert and more ready to learn. Goodwin *et al.* (1992) suggest that turning from one student to another student to comment on the statement or inquire more information on the topic. This also can serve as peer evaluation where one student is allowed to correct other student's incorrect statement or response.

Further, Cashin (1995) in his article about "Answering and Questions" cites that in redirecting question, the teacher might inquire different student from time to

time (one who might know the answer) to respond or might as well redirect the questions to the entire class for an answer or response, or elaboration of an issue. The following is an example of a seminar on urban problems. The teacher initiates firstly by asking questions.

Teacher: if people know about all the harmful effects that pollute the environment, why does not the government stop the polluters?

Bill: Sorry...?

Teacher: Okay, why don't our political leaders do something about those things that we know hurt the environment." (the teacher rephrase his question)

what are some reasons the rest of you can think of that might explain this illogical behaviour? (the teacher redirect his question to the entire class)

Marry: well, many of the things people do that cause pollution also have a lot of benefits: factories produce goods we want, provide jobs, etc.

In other words, by redirecting the questions to the whole class, the classroom environment will be more interactive, and more students are actively involved in the learning activities.

Probing

Goodwin et al. (1992) cite that probing used when there is a possibility of superficial responses from an initial reaction from students. In this situation, the teacher will need to investigate by asking more explanatory questions to explore the initial comments.

For example:

Teacher: What did you like best about the program?

Student: "Everything was great."

Teacher: **What was one thing that stood out**

Student: I got to try different things.

Teacher: **What things did you try?**

Student: I got to try playing the piano.

Teacher: **What did you like about playing the piano?**

Student: It made me feel like I could do this...I've always wanted to try the piano but haven't had the chance and I thought I wouldn't be able to do it. I thought it would be too hard for me but I could do it...I want to try again.

Notably, Brown (1975:107) proposes probing questions to direct the students to think thoroughly on their initial answer to express themselves clearly and develop their critical awareness as well. It is described as follows:

Teacher: Jessica. You went to Paris this year. What did you think of it?

Jessica: Mmmm. It was nice.

Teacher: What was nice about it? (Pause)

Jessica: Well, I liked walking down the avenues which had trees. I liked watching the boats on the river. I liked listening to Frenchmen. The metro was exciting, and, oh I liked the French bread and butter.

Cooper (2010:112) cites that probing question is used to prompt student thinking on any level of taxonomy such as analysis, synthesis, and evaluation level.

The following is an example:

Teacher: “how can we convince auto manufactures to build smaller cars, cars that burn less gasoline?”

Student: “ pass a law”

Teacher: “**can you be more specific?**” (probe)

Student: “sure. Put a limit on the size of cars.”

Teacher: “**why do you think that would work?**” (probe)

Student: “well, smaller cars burn less gas. If you just ask them to make a smaller car, they wouldn’t do it. So pass a law requiring it.”

Teacher: “**wouldn’t car manufacturers rebel at being forced to make smaller cars?**” (probe)

Student: “I guess. But they would do it.”

Teacher: “**what effect might such a law have on business people in other industries? How would they perceive such a law?**”(probe)

From the above description, it is clear that to get for more detailed information. It requires the teacher to lead their students to think about the higher level of questions, so that in-depth information and clear answer are gained.

Reinforcement

Teacher reactions toward students are needed. Goodwin et al. (1992) offered reinforcement to students who have never responded to the questions, or to one who provides an exceptional answer than to someone who responds frequently. The approach can vary from teacher making positive statements or using positive nonverbal communication. Smiling, nodding, and eye contact are some of the examples of the proper nonverbal system. While communication like looking at notes while students speak, looking at the board, or ruffling papers are considered inappropriate nonverbal responses.

Besides Walker (1975:32) define reinforcement as an occasion for thing becoming better than they were and it is divided according to whether some new good things which happen or something terrible which goes away. Further, he also differentiates reinforcement into two categories; positive and negative reinforcement. Positive reinforcement refers to achieving the goal of receiving a reward. However, negative reinforcement escapes from an unpleasant or dangerous situation.

In summary, it is suggested to vary reinforcement between verbal and nonverbal reactions and avoid the overuse of support by overly praising every student comment should not do in class. It is to maintain a conducive situation in the classroom learning process.

Types of Questioning

Questions are one of the many integral parts of teaching and learning activities. It has become common practice from teachers to students. The types of questions and its delivery are critical to develop students' abilities in processing information at various levels of thought. Brualdi (1998) in "Classroom Questions: Practical Assessment, Research & Evaluation" cited that good questions are those that will allow student to expand their knowledge and encourage them to be creative during their thinking process. This implies that teachers must be confident that they have a clear purpose for their questions rather than just determining what knowledge is known.

Besides, questions also have distinguishable characteristics, serve various functions, and create different levels of thought process. According to Sadker and Sadker in Cooper (2010:118), Bloom's Taxonomy is probably the best-known system for clarifying objectives and classroom questions. The following list is the six levels of Bloom's Taxonomy, and each level questions require responses by using a distinct thinking process.

1. The first level is knowledge; at this level; the students are required to recognize or recall information. The student is not requested to modify the information, but to remember what was learned first. For instance, "What is the capital of Mine?" or "Who wrote Hamlet?"
2. The second level is comprehension. It requires the students to demonstrate sufficient personal grasp of the material by being able to rephrase it, give

a description in his or her own words, and use it in making comparisons. To answer a comprehension – level question, the students must go beyond recall or information. For instance, “What is the main idea that this chapter presents?”

3. The third level is the application. It requires the students to apply previously learned information to reach an answer to a problem. For instance, “According to our definition of socialism, which of the following nations would be considered socialist today?”
4. The fourth level is analysis. It requires the students to think critically and in-depth. It asks the students to identify reasons, uncovers evidence, and conclude. For instance, “What factors influenced the writing of Anne Frank?”
5. The fifth level is synthesis. It asks the students to produce original communications, to make predictions or to solve problems. Still, it does not require a single answer but instead allows a variety of creative response. For instance, “How would you like to be different if a school were not mandatory?”
6. The higher level is evaluation. It requires the students to consider the merits of an idea, a solution to a problem, or ask the students to offer an opinion on an issue, it doesn’t need a single correct answer as well. For instance, “Decide why young children should or should not be allowed to read any book they want?”

Further, Freiberg and Driscoll (1992:211-212) show questions at each level of Bloom’s taxonomy in six main headings which include Bloom’s subheadings and sample questions for each of the subheadings.

Table 1. Questioning Strategies in Context with the Cognitive Domain of Learning

Category	Sample question
Knowledge	
1-1 knowledge of specifics	Who discovered the Missisipi River?
1-2 knowledge of ways and means of ways and means of dealing with specific	What word does an adjective modify?
1-3 knowledge of universals and abstractions in a field	What is the best method for calculating the circumference of a circle?
Comprehension	
2-1 translation	What do the words hasta la vista mean?
2-2 interpretation	How do the democrats and republicans differ in their views of spending?
2-3 extrapolation	Given the present population birth rate, what will be the world population by the year 2000?
Application	
	How has the Miranda decision affected civil liberties? Given a pie-shaped lot 120ft. X 110ft. X 100ft., and village setback conditions of 15ft. in all directions, what is the largest size one-story home you can build on this lot?
Analysis	
4-1 analysis of element	What are the facts and opinions in the article we read?
4-2 analysis of the relationship	How does Picasso organize colors, shapes, and sizes to produce images?
4-3 analysis of organizational principles	How does John Steinbeck use his characters to discuss the notion of friendship in of Mice and Men?
Synthesis	
5-1 production of a unique communication	How would you write a simple melodic?
5-2 production of a plan	How would you go about determining the chemical weight of an unknown substance?
5-3 derivation of a set of abstract relations	What are the common causes of cell breakdown in the case of mutations, cancer, and aging?
Evaluation	
6-1 judgment in terms of internal evidence	What are the fallacies of Hilter's Mein Kampf?
6-2 judgment in terms of external evidence	“Who can judge what is wrong with the architect's design o the plumbing and electricity?” requires the ability to cope with not being all right and not always getting approval from the teacher. In general, the pace is slower and there is more opportunity for students to more exchange ideas.

Adapted from Ornstein in Freiberg and Driscoll (1992: 211-212)

Recommendation

We learn from the study that the simplicity and complexity of questions during teachers' classroom questioning will support the smoother performance of this strategy. It is believed that rephrasing, redirecting, probing, and reinforcement as effective questioning strategies (Bloom's taxonomy level, 1956; Goodwin et al., 1992). However, there are times when the teacher fails in delivering her question while implementing the strategy. Probing, for example, will proceed without any difficulty and look like questions and students were managed and maintained. But reserved classroom will pose a different challenge to that process. Higher-level questions can be one of the many causes. Students found it difficult to respond to questions. The frequency of the questions asked also can trigger passive responses. The teacher should provide students with the proper amount of times for them to respond to the questions. The interactive classroom can only be achieved this way.

On that matter, wait time is needed. Wait time should be provided for the students to think, especially those questions on a higher level. Wait times not only allows students to tackle more difficult questions but also will enable them to think more thoroughly. Another crucial point for this strategy to work is for the teacher to carefully arrange the questions in order from the most simple to the most complex. This process needs to be done before the questions asked toward the students. Teachers' questioning strategy benefit teaching and learning activities that it helps teacher to evaluate whether students' understand the previous lesson or not. This process can also aid future classroom planning. This whole process will not only help teacher as the person who is in charge of the classroom management, but it will assist students in giving more free judgment and the process of acquiring its answer (Blosser, 2006; Bond 2007; Cotton, 2007).

CONCLUSION

Shortly, the implementation of questioning strategies has been investigated in this study. This study shows there should be a variety of questions asked and excessive use of lower-level questions will not be able to expand students' critical thinking but instead slows down their potential. There is also an ineffective strategy performed by the teacher found during the investigation. The second crucial point to consider is the wait time. Waiting time is essential and needed especially for

higher-level questions. Teacher also needs to be aware of the questions' arrangement, which comes first and which question come last based on its difficulty order. This will help the classroom to succeed and be more interactive.

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