

Effective Questioning in the Classroom: An Overview of the Techniques Used by Instructors

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Citation: Ghafar, Z. N. & Hazaymeh, O. (2024). Effective Questioning in the Classroom: An Overview of the Techniques Used by Instructors. *International Journal of Childhood Education*, 5(2), 1-14. <https://doi.org/10.33422/ijce.v5i2.676>

ABSTRACT

The objective of this research is to examine the effectiveness of the questioning strategies used by instructors in the classroom. Effective questioning strategies are crucial in the process of teaching and learning. Effective questioning tactics help instructors in obtaining feedback from students on their comprehension of the subject matter. This article outlines the questioning strategies that teachers must be familiar with in order to facilitate classroom teaching and learning sessions effectively. These tactics include capturing students' attention and using an appropriate voice. Request to temporarily halt, examine the substance of the questions, and analyze the method of disseminating the questions. Enhancing student motivation and developing positive, critical, and creative thinking among students is crucial for improving the teaching and learning process in the classroom. The study findings showed that enhancing the process of education and learning in academic places is essential to building positive, critical, and creative thinking among students as well as increasing the level of motivation among students.

keywords: Inquiry, Methodology, Educational Setting, Pedagogy, Acquisition of Knowledge, Function

1. Introduction

In order to effectively teach a topic in the classroom, instructors must continually involve their students in teaching and learning activities. A teacher's question-and-answer period is one of the most crucial parts of the teaching and learning process. One important teaching strategy is questioning. You may use questioning to assess your knowledge of the past by asking who, what, where, and when in order to elicit factual replies. Another goal of designing is to get students thinking. These are the types of topics that need considerable thought since they deal with more critical issues like repercussions and make use of how and why questions. Teachers may practice and reinforce a range of asking strategies throughout the question-and-answer period to inspire students and promote critical thinking in the classroom. One of the best methods to include students in the lesson's delivery is to ask questions. Teachers may elicit thoughts from their students and show the impact of their instruction by asking questions that prompt them to consider the lesson's material. (Leong, 2017). The classroom serves as a venue for professors and students to engage in interactive communication. The environment fosters several scholarly discussions among the participants. It is a location where the process of acquiring knowledge takes place. The teacher's capacity to ask questions is a crucial component of the learning process. These inquiries engage the intellect of a learner in achieving significant educational results. When

professors pose questions, pupils actively participate in the subject matter while also providing teachers with feedback (Leong, 2017). Prior research has successfully shown the advantages that pupils get from instructors using questioning strategies. According to Donkor et al. (2021), the use of questioning strategies by instructors facilitates the explanation of material in a way that enhances students' comprehension. The research above also indicated that questions might serve as a means to foster critical thinking among pupils. In separate research conducted by Walsh and Sattes (2015), the use of questioning tactics in classroom discussions, precisely the quality of questions, was shown to enhance the level of engagement in the discussions. Studies conducted on an international scale have also shown that active participation and involvement in the classroom are beneficial strategies for improving student performance and results. (Hu et al., 2012, 2015; De Guzman & Macapagal, 2020; Hsieh, 2016). The effects of globalization have led to astonishing developments in English language education in recent years. People must communicate in English to exchange ideas and engage with one another in this global age. Pianta (2017) asserts that improving student learning and growth mainly depends on interactions between the educator and the learner. One of the critical components in the teaching-learning process is classroom contact. In order to foster a teacher-student dynamic that results in a reciprocal impact, Brown (2000) claims that interaction is necessary. This involves a collaborative exchange of ideas, sensitivities, or thinking between the instructor and students. Linguistic communication classes vary from other types of classroom settings in that contact is an integral part of the language acquisition process. This study aims to examine more about the role of open questions and how instructors utilize them to mediate comprehension to students in general and language arts courses in particular. This research builds on the overview that was previously provided. This review paper tries to answer those questions by reviewing the literature on a number of topics, including the development of higher-level thinking through questioning strategies, the role of wait time in relation to classroom climate and peer interactions, and higher-order questioning strategies that are in line with student achievement in reading and language arts, this article aims to address these crucial questions. The author's analysis of these issues takes place in the context of a school where students' capacity to express their understanding and unique perspectives is actively encouraged and highly esteemed; however, the lessons learned will be applicable to a wide range of educational settings.

2. Methodology

Library research was employed in this study. Library research, according to many researchers, involves the collection of tasks that include data collection techniques, reading, logging, and processing library items. These activities are inextricably linked to the print and digital media holdings of the library as well as records pertaining to the library. The data in the collections may be located using the study literature. Researchers will gather as much data as they can from relevant literature in their quest for a theory. The data was gathered via documentation. A study that uses manuscripts, books, newspapers, and magazines as its main source of data is called library research. The concept of a library has changed to include both printed and digital materials as a result of technological advancements. The researchers employed printed materials, including books and journal articles, in this study. In addition, the study analyzed digitized papers about AI news anchors from social media sites like YouTube and Instagram. The researchers used content analysis for the data analysis. A research approach known as content analysis or content assessment uses a series of steps to draw reliable conclusions from a book or document. This is a thorough examination of every written or printed document's content. From the

description that came before, it is clear that content analysis is a research methodology that involves a set of procedures to extract the concepts and facts that are most important to conclude from.

3. Techniques for Asking Questions

Teachers' use of questioning strategies is one of the most critical aspects of developing successful teaching and learning processes. One of the various interactions that take place in the classroom throughout the teaching and learning process is instructor questioning. One strategy for accomplishing objectives and increasing pupils' mental activity is the use of questioning tactics. Using effective questioning strategies may help kids learn, grow as thinkers, generate coherent ideas, spark their imaginations, and become motivated to take action. Additionally, it is one method educators use to support students' knowledge development more successfully.

When conducting teaching and learning sessions in the classroom, teachers must be aware that one of the most critical factors in determining the efficacy and caliber of their lessons is the caliber of the questions they ask and the way they ask them. Instructors have a crucial role in encouraging students to think critically by using appropriate questioning strategies. According to Dillon (1990), a number of academics have made a strong case for the importance of questioning in thinking, information storage and communication, and even a number of significant forms of social interaction.

Although a lot has been written on questioning, much of it has been about how instructors pose questions and how students respond to them. This has left out the possibility that one of the most important educational goals may be to support students in becoming better questioners (Bowker, 2010). Thus, the fault with the majority of problem-based, critical, and Socratic techniques is that the instructor still influences the investigation. While the instructor assumes the character of Socrates, students are urged to come up with responses that fit their roles as innocent interlocutors. Students become reliant on the instructor when the teacher creates questions, issues, or crucial obstacles. Conversely, a question-centered pedagogy suggests that students be given rigorous instruction in problem-solving and question-posing techniques so that they may interact with the course content as autonomous learners (Bowker, 2010).

Any changes that take place in the classroom should be communicated to teachers, and they should be in line with the goals they have for the teaching and learning process. Consequently, educators must carefully consider the following while making schemes:

3.1. Pay Attention

Students are one of the most effectively engaged in a classroom discussion through the use of attention-getting questions. Prior to requesting an answer from a single pupil, the entire classroom should be presented with the query at hand. Additionally, instructors ought to offer a question prior to identifying a student who has responded to the question posed. This is to guarantee that every student is concentrating on the posted queries. When a specific student's name is announced initially, only that individual will remain attentive throughout the class. Teachers should never limit their questioning to the pupils who raise their hands; instead, they should constantly offer questions to all of the students in the classroom. When it comes to this particular scenario, the conduct of the pupils who raise their hands in response to a question should not have any impact on the Teacher. In many cases, professors only give questions to the students who raise their hands, and they ignore the

pupils who do not raise their hands. Put up their hands. This is detrimental to the process of teaching and learning. Every kid in the classroom deserves consideration and attention. Some pupils who are not paying attention will ask the instructor to ask the question again in the meantime. In this instance, when a student asks for the question to be repeated, the instructor should not. The student will naturally get distracted if the instructor asks the same question over and over again; thus, in order to get their attention, the teacher should only ask the question once. Questioning is essential to teaching. When creating questions, teachers need to be knowledgeable, skillful, and personable. As a result, teachers can help students with the questioning process. Teachers may use questions as a crucial tool to promote critical thinking in their students (Harvey & Goudvis, 2007; Marzano, 2007).

3.2. The Effects of Voice

For a teacher, voice is one of the most significant instruments for communication that they may use. When professors ask questions, they should make sure that their voices are audible and that the students effectively receive their tone. In order for the students to have a positive experience, the questions should be presented in a way that is both clear and effective. It is essential to do this in order to get pupils to respond to a question. Long (1983). Various terms are employed to refer to open questions: open-ended questions (Barnes, 1976; Lee & Kinzie, 2012; Nystrand et al., 1997), display questions (Long & Sato, 1983; Nunan, 1996), and divergent questions (Mehan, 1979). Although the studies above use different terms, they consistently distinguish between questions that may be answered in several ways and questions that have a predefined proper response. This article expands upon the concept of open questions, which are defined as questions that may be answered in several ways without a definitive correct answer (Myhill, 2005; Nystrand et al., 2006). This study incorporates yes/no questions where the response is not predefined (Nystrand et al., 2006).

3.3. Temporarily Stop as Known (Pause)

The instructor needs to look at the whole class and halt speech once a question has been submitted. Please take note of the students' verbal signals when they are prepared to answer. Students need to be given some time to consider their responses when questions are asked. The duration should not be very lengthy since this will cause interest in it to wane. According to Smith and Higgins (2006), open-ended questions promote student inquiry and active participation, which boosts dialogical teaching and student engagement (Alexander, 2008; Gillies, 2014; Nystrand et al., 2006; Twiner et al., 2014). According to Smith and Higgins (2006), open-ended questions are a valuable tool for motivating students because they encourage dialogue, which in turn improves comprehension and thinking. Even though open-ended questions have been found to be effective in helping students deepen their knowledge, a number of research studies have shown that instructors seldom ever use them (Almeida & Neri de Souza, 2010; Lee & Kinzie, 2012; Osborne & Chin, 2010; Wu, 1993).

3.4. Content of Questions

A teacher should prepare the kinds of inquiries that will be asked in the classroom before posing an investigation. In this instance, it may not be required to prepare these questions beforehand, but the "axis question" still has to be created. It is essential to organize the axis questions logically in order to maintain lesson continuity. To ascertain the intended course of a session, the instructor should pose several questions similar to these. These should not be exceedingly lengthy queries. (Long 1980: 144) In addition, educators want to provide

questions that are appropriate for the kids' ages and skill levels. Instructors already know how capable a student is in the classroom. Teachers may thus provide challenging questions to their brightest and most talented pupils and assign simple questions to their least proficient ones. Less proficient pupils will be able to respond to straightforward questions, which will inspire and challenge their thinking. Instructors need to support inquiries that seem to have an answer. Additionally, educators have to make sure that a question's wording is understandable. If students do not comprehend the terms used in a question, they will get confused. The instructor should clarify a question if the pupils do not understand it, but they should still have the opportunity to respond.

4. Delegation of Questions

Teachers should enquire of every student in the classroom when they ask inquiries. All students will get questions in order to motivate them to engage in the process of teaching and learning. Instructors need to refrain from posing questions based on how their pupils are seated in the classroom. This is a result of the kids who were sitting at the rear and on the sides of the room not participating in the lesson or paying attention. Therefore, in order for every student to pay attention and engage, questions must be asked of them all. Whatever inquiries a teacher has to ask should be prepared in the meantime. When pupils are working on a project or study, teachers should refrain from interjecting. When instructors ask their pupils questions and get their responses, they should always assist the student in coming up with the correct answers by drawing them out of him. Students will strive to answer the question and think more carefully in this manner. Through the use of questions, the instructor makes an effort to guide the students into a variety of activities and tasks and then to maintain their participation in those activities (Wallerstedt et al., 2014).

5. Questions at Various Levels

The teaching and learning exercise should include a variety of questions at different degrees of complexity. In his book "Taxonomy of Educational Objectives" published in 1956, Benjamin S. Bloom categorizes the six levels of inquiries into the cognitive domain. The process begins with the retrieval of factual information, progressing from the most straightforward and concrete levels to the most intricate and abstract ones, culminating in the highest degree of classification as an assessment. Here is a list of the six different levels of questions:

5.1. Acquired Knowledge

Students' memories may be readily digested by knowledge-based questions, which are questions that are based on knowledge. Instructors need to choose questions of this kind, mainly when they are introducing pupils to novel concepts or perspectives. In every communication process, including learning communication, asking is a necessary component. Teachers may use questions or statements to prompt students to discuss or develop their replies or reactions. This is known as questioning skills. Unaware that the phases of questioning are an integral component of the implementation of planned learning models, questions are asked throughout the preparatory, core, and closing phases of the learning process. One approach to find out whether pupils have understood the subject the instructor has provided is to ask questions. Asking questions helps both students and instructors, in addition to the former. Peterson and Taylor (2012), who claimed that thoughtfully crafted questions would assist instructors and students, corroborate this claim. Not only may students ask questions of teachers, but teachers can also ask questions of

students.

5.2. Understanding

Following the introduction of a concept and acquisition of information, instructors should provide easily understandable questions. This implies that educational and cognitive activities will occur inside the realm of comprehension or activities related to comprehension. Morgan and Saxton (2006) state that teachers use questions for a variety of purposes, including helping to maintain student engagement in the classroom, letting students freely express their ideas and opinions, assisting in lesson pacing, assisting in the evaluation of students' learning, and revising lessons by regulating behavior. Additionally, Nasution (2009) states that the goals of questioning techniques are threefold: 1) to produce an understanding of the new or old, 2) to encourage children to think critically to solve problems, and 3) to research and evaluate students' comprehension of the material. A skilled teacher understands how to employ questions for maximum effect on pupils, just like a skilled lawyer (Myhill & Dunkin, 2005).

5.3. Request

The questions include the use of offered knowledge to pupils. The application questions aim to assist students in applying their acquired knowledge based on the material presented during teaching and learning activities. One of the most often used teaching strategies is asking questions. According to Farrell and Mom (2015), the instructor-questioning approach is used in about 60% of class discussions. In the classroom, questions are a fundamental component of education that teachers employ to assess their students' knowledge, proficiency, and comprehension of the subject matter, according to Critelli and Tritapoe (2010). One of the most prevalent and apparent aspects of classroom interaction is questioning, which is a crucial tactic the instructor uses while interacting with students (Buchanan, 2016). It is simple to start a dialogue, spark curiosity, and get others thinking when you ask questions. It is a means of fostering communication between educators and learners while evaluating them in order to meet the lesson's goal (Kholisoh & Bharati, 2021). Questions were categorized as information, interpretation, analysis, synthesis, assessment, and application by Chaffee (2014). In addition, questions are thought channels, and asking students questions by their teachers raises their learning levels, according to Walsh and Sattes (2005).

5.4. Assessment

The distinguishing characteristic of the analysis question is its ability to disentangle and differentiate thoughts. At an advanced level, students will encounter analytical inquiries, and instructors must exercise caution to ensure that students comprehend the subject matter and are able to apply the skills learned effectively. As stated by Brown (2007), classroom interaction refers to the cooperative exchange of ideas, thoughts, and emotions between two or more individuals, resulting in a mutual influence on each other, which is known as interaction. The idea of communicative aptitude emphasizes the importance of using language in various contexts to negotiate meaning in human experience. However, this refers to the process of transferring thoughts or concepts from one person's mind to another's and vice versa.

5.5. Synthesis

Synthesis questions are inquiries that help pupils generate novel ideas based on the basic knowledge they have been presented with. These abilities also need a high level of proficiency, whereby professors must guide pupils until they are capable of synthesizing knowledge. Additionally, students can need specific instruction in questioning techniques, such as understanding the phrasing of successful inquiries and the structure of inquiry creation. King (1994) discovered that by providing students with thought-provoking question stems such as "What is the difference between... and..?" they were better able to come up with questions that stimulated comparison and contrast, cause and effect inference, observation of strengths and weaknesses, concept evaluation, explanation, and justification.

5.6. Evaluation

At the most advanced level, pupils will be instructed to answer questions that are based on assessment. Pupils must be able to construct and defend their arguments while being evaluated. Orlich et al. (2012) that the four main types of questioning strategies are divergent, convergent, evaluative, and reflective questions. These questioning techniques are used to provide specific value to the various types of inquiry. According to Chin (2007), one of the distinguishing characteristics of classroom communication is the use of direct questioning by instructors. As was previously said, asking questions is not a typical student job. As a result, rather than asking questions in class, students are more frequently required to respond to them. Few pupils really pose thoughtful inquiries on their own (White & Gunstone, 1992). Students' age, experiences, past knowledge and abilities, the teacher's attitude, the teaching style, the topics being covered, the reward system, the classroom's evaluative atmosphere, and social interaction patterns can all have an impact on the quantity and kind of questions they ask (Biddulph & Osborne, 1982). Furthermore, the ability to formulate effective questions in order to generate intriguing and fruitful responses is a prerequisite (Shodell, 1995). There is a correlation between poorer accomplishment and pupils' low levels of inquiry and explanation (Tisher, 1977).

6. Other Types of Questions to Consider

Not only that, but there are more methods to classify queries. In accordance with its primary duties, it is possible to carry out the following.

6.1. Questions in the Highest Order

These are the kinds of inquiries that are asked the most often compared to others. Due to the fact that it follows the order of information disclosure that was supplied in the activities that were included in the teaching and learning process, this question is presented in sequence. Asking questions is a crucial part of the process of teaching and learning. Hannel (2009) asserts that asking questions is a crucial component of effective instruction. Chin (2007) states that the purpose of inquiry is to allow for student input and provide objective, as opposed to judgmental, answers to what students have to say. Teachers use questions for a variety of objectives, including managing class activities, encouraging creativity, encouraging critical thinking, helping students evaluate their knowledge, and emphasizing points. (Astrid et al., 2019)

6.2. Questions that Have Not Been Answered

There is a form of inquiry known as "uncovered questions," which has the potential to erode

pupils' knowledge steadily. In addition, in order to prevent pupils from becoming bored, this method demands instructors to ask questions that are not only obvious and straightforward but also innovative. Caram and Davis (2005) claim that teacher-initiated questions improve student learning by fostering critical thinking abilities, reiterating what students have learned, clearing up any misconceptions, giving students feedback, and igniting class debate. Instructors use questions as a teaching technique to assess student knowledge, identify problem areas, and monitor and drive learning. Asking insightful questions may improve student performance and foster learning.

6.3. Open-Ended Inquiries

An example of an autonomous inquiry is the use of open-ended questions, which are used to evaluate the skills and knowledge of the pupils. In addition, students have the option of asking the instructor questions in order to get further assurance and explanation. Instructors are required to respond to this sort of question in order to determine the level of comprehension that their pupils possess. Two kinds of questions are formed throughout the instructional and educational process: questions from the instructor and questions from the students. According to Bowker (2010), teacher-generated questions place the onus of control over the learning process on the instructor and make the students reliant on them. According to Bowker (2010), student-generated questions allow students to take charge of their education, interact with the subject as independent thinkers, and take part in the learning process.

6.4. Differentiated Questions

Questions with much potential to stimulate critical thought in pupils are known as divergent questions. Students must expand their thinking in order to enhance their critical thinking abilities, and this may be achieved via the use of subjective questions. Studies usually support the use of open questions over closed questions, as the review explains, and the literature in this field adopts a strongly normative stance (Alexander, 2008; Nystrand et al., 2006; Smith & Higgins, Wells). A question may be posed in class for a variety of reasons and purposes, as (Mercer, 2010) contends. Mercer's contention becomes particularly pertinent if one believes that open-ended questions contribute more to classroom discourse than closed-ended ones do. The normative standing of open inquiries might be troublesome when they serve a variety of purposes. Chin (2002) states that inquiries prompt students to offer explanations for perplexing things and provide solutions to difficulties. These questions stimulate the use of profound cognitive techniques that may not be utilized if the questions were not posed, hence playing a crucial role in actively engaging students' brains. These kinds of inquiries may assist learners in starting a process of hypothesizing, forecasting, engaging in thought experiments, and explaining. This can lead to a series of productive activities and help them gain new information or resolve problems in their understanding (Chin & Brown, 2000). When students actively participate in discussions and activities related to common issues or tasks, one person's inquiries might also inspire another group member to use similar tactics and cognitive processes. The inquiries included in the conversation of peer groups facilitate learners in the formation of knowledge via the dialogic and dialectic process (Chin, 2002). According to Watts and Alsop (1995), students' inquiries revealed the paths they were taking to gain comprehension. Consolidation, investigation, and elaboration questions, in particular, provide light on various stages of the conceptual shift process.

7. Theoretical Framework

According to the study's findings, there are valid reasons to focus more on how classroom discussions, including questions from teachers, can more fully mediate the topic as instruments of deeper learning rather than how closed and open questions differ from one another.

Earlier studies have identified a number of problems with classroom engagement. According to Iv and Tenore (2010), educators should put forth more effort to address students' learning possibilities and their preference for dialogic engagement (Brown & Kennedy, 2011). Other research, however, stressed that classes tended to become more teacher-centered and that there were fewer possibilities for meaning negotiation and scaffolding when students switched from their first to their second language.

On the other hand, learners get more engaged when the material is converted to their native language (Diehl & McFarland, 2012; Lehti-Eklund, 2012). Palma (2014) and Pianta (2016) have discovered that interactional elements in teacher-student interactions, in addition to language switching, led to learner participation, measurement, engagement, and interaction. These results provide further crucial insights into pedagogy and the manner in which teachers educate, as well as vital consequences for classroom engagement.

In line with the previous findings, recent research has shown that teachers should employ particular interactional strategies, like meaning negotiation when facilitating interactive teacher-student interactions where opportunities and involvement are demonstrated through extended turns (Cancino, 2015; Jackson & Cho, 2018; Solem, 2016). Thus, Griffiths (2015) supports the findings, concluding that teacher-student interaction should be viewed as a useful tool for learning that unquestionably necessitates the effective use of a variety of techniques, strategies, measurement, and both instructional moves and pedagogical intentions (Michener et al., 2018).

However, some sorts of inquiries may enhance higher-order thinking and improve learners' accomplishment, particularly when they are exposed to the complexity of discourse and syntax in inquiry (Hill, 2016; Walsh & Hodge, 2018). This has been confirmed by recent research, showing that the intricacy of a teacher's verbal communication, namely in the form of cognitive inquiry, directly influences the degree of thinking shown by students (Stivers, 2018; Waring et al., 2018). Specifically, the study discovered that high-level thinking learners perform better on more complicated questions. However, this finding only applies to high-level learners with advanced language skills (Hu & Duan, 2018).

Students' reaction may provide valuable insights about the effectiveness of instructors' questioning techniques during the engagement. The extent to which students participate and respond in the classroom is greatly influenced by the range of question kinds, tactics, follow-up inquiries, and patterns of inquiry used by instructors during classroom interactions (Gilson et al., 2014; Heritage & Heritage, 2013; Hosoda, 2015). As stated by Hill (2016), high-order or complicated questions have a dual impact on students. Firstly, they contribute to the development of linguistic complexity in students' replies. Secondly, they promote greater engagement with academic subjects.

8. Conclusion

Questioning during teaching and learning sessions is a crucial element in acquiring information. Teachers should prioritize the use of effective questioning strategies throughout the teaching and learning process to cultivate students' curiosity and enthusiasm for learning. Utilizing effective questioning tactics can enhance motivation and foster

students' capacity to engage in critical and creative thinking. Moreover, these strategies will enable students to participate actively in the teaching and learning process and enhance their proficiency in higher-order thinking skills. By using effective questioning tactics, educators may elucidate crucial subject matter, facilitating students' comprehension and fostering the advancement of their cognitive abilities. Hence, educators must prioritize the development of questioning strategies to cultivate internationally competitive pupils. It seems that throughout the many language arts topic areas, instructors ask varying types of questions. There has been an increasing number of research focused on the many aspects of classroom interaction. The results have presented many viewpoints on the nature and characteristics of classroom interaction. Past research has identified that the main areas of concern are the learning opportunities and interactional approach, the role of instructors, classroom management, quality, and classroom language competency. In addition to analyzing changes in activity patterns and language, prior research has also investigated the interpersonal dynamics in teacher-student interactions, with a focus on the connections among the participants. Teacher-student interpersonal ties have a notable impact on academic results. Furthermore, according to the findings, the teacher-student connection is formed by direct and immediate contact between the instructor and the student. The real-time interactions in question are categorized based on their interpersonal content, structure, and complementarity. These categorizations may be beneficial in enhancing and molding the classroom atmosphere.

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