The Art of Questioning in Online Learning: Effective Questioning Strategies in EFL Reading Class

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ABSTRACT

The advent of online learning has made it necessary for educators to develop new teaching strategies, particularly in the area of questioning techniques. This study aimed to explore the types of questioning strategies employed by teachers during online reading classes and identify the factors that contribute to the frequent use of a specific approach. The study used observation checklists and interview guidelines based on Bloom’s taxonomy and Wragg and Brown’s questioning strategies to gather data from second-year English language students enrolled in an online reading class. The research findings revealed that to engage students, evaluate their comprehension, and ensure alignment with the textbook material the teacher primarily utilized “Understand” and “Analyze” questions, along with directed, distributed, responded, and sequenced strategies. The teacher also utilized Zoom’s chat box feature to ask questions and enable students to provide direct answers. The results of this study demonstrate the importance of effective questioning techniques in online learning environments. The teacher’s use of a variety of questioning strategies had a positive impact on the students’ ability to acquire knowledge, demonstrating that a diverse range of strategies can help students achieve deeper levels of understanding. The research findings have important implications for the education sector as it provides insights into effective teaching strategies that can help promote student engagement and enhance their learning outcomes.

Introduction

Reading is an active skill that involves guessing, predicting, checking, and questioning oneself (Brassell & Rasinski, 2008; Pressley & Gaskins, 2006; Qanwal & Karim, 2014). By guessing and predicting what might happen next, readers can create mental images that enhance their comprehension of the text. Teachers can develop students’ knowledge by asking the right types of questions, such as those that encourage predicting the content of a text based on its title or the end of a story based on paragraphs without a straightforward answer (Almasi & Fullerton, 2012; Chi, 2013; Cho & Ma, 2020). Effective questioning can
lead to deeper thinking and better retention of information. In this way, teachers can help students develop critical thinking skills, which are essential for success in all aspects of life. Therefore, it is crucial for teachers to ask the right questions while reading to help them clarify their understanding of the text. However, selecting an effective questioning strategy requires significant practice and skill, especially for new teachers.

The types of questions teachers ask in the classroom are crucial in shaping students’ learning, thinking, participation, and engagement. Therefore, questions are a key component in the teaching and learning process (Wilen, 1991). It is the teacher’s responsibility to guide students and foster their interest in learning, which makes teacher questioning crucial to the teaching process. According to Harvey and Goudvis (2007), effective teacher questioning enables teachers to meet high standards and cater to diverse learners in their classrooms.

Teachers’ questions can offer significant advantages to students as they take an active role in the learning process, leading to better understanding and more enjoyable learning experiences. Additionally, it provides opportunities for students to develop valuable research skills, achieve higher-order learning outcomes, and perform better academically. Teachers can also reap benefits from their inquiries through strengthened teaching-research connections and the clear improvements in student engagement and learning (Spronken-Smith et al., 2008). It could be stated that the optimal style of questioning motivates students to actively participate in their learning, making it necessary for every teacher to develop a questioning approach that accommodates the varying needs of their students to enhance the effectiveness of their teaching. Turney et al. in Wragg and Brown (2003) listed reasons why teachers ask questions: 1. To pique someone’s interest and curiosity about a subject. 2. To draw attention to a certain topic or subject. 3. To cultivate an active approach to learning. 4. To encourage students to question themselves and others. 5. To design a task in such a way that learning is maximized. 6. To identify particular obstacles to learning. 7. To express to the group that participation in the lesson is anticipated and that overt engagement by all group members is valued. 8. To provide students the chance to absorb and reflect on material. 9. Involve students in an assumed cognitive operation with the expectation that this will aid in the development of thinking abilities. 10. Encourage students to think on and remark on the comments of other members of the group, both students and instructors. 11. Provide students with the chance to learn vicariously via dialogue. 12. Show real interest in the students’ thoughts and feelings.

In conclusion, questioning is an essential tool for teachers to promote active learning, encourage curiosity, and foster student engagement. By understanding the various reasons behind teachers’ questions, they can design tasks and activities that optimize learning outcomes, identify obstacles to learning, and develop students’ thinking abilities. Additionally, teachers can create a positive classroom environment that values participation and encourages students to reflect, think critically, and learn from each other.

As a teaching tool, questioning must be used correctly and requires knowledge of question types, strategies, and reasoning skills. The quality of questions is determined by the answers they elicit, highlighting the importance of considering both the strategy and the types of questions asked by students (Wragg & Brown, 2003; Wilen, 1987). Anderson and Krathwohl (2001) classify
questions into Bloom’s Taxonomy, which ranges from basic recall to complex thinking. Low-level questions (Remember) focus on facts and details, while high-level questions (Understand, Apply, Analyze, Evaluate, and Create) ask students to generate new ideas or make inferences.

Anderson and Krathwohl (2001) proposed a hierarchy of question types that span from simple recall questions to those that necessitate more intricate reasoning. The first group of questions, referred to as Remember, is classified as low-level, whereas the other categories (Understand, Apply, Analyze, Evaluate, and Create) are deemed high-level questions, and are especially advantageous for developing classroom tasks that stimulate students’ critical thinking skills. The types of questions proposed by Anderson and Krathwohl (2001) range from basic recall questions to those that require more complex thinking. The first category of questions is labeled "Remember," and includes strategies such as recognizing and recalling. The second category is "Understand," which includes interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining. The third category is "Apply," with strategies such as executing and implementing. The fourth category is "Analyze," with strategies such as differentiating, organizing, and attributing. The fifth category is "Evaluate," with strategies such as checking and critiquing. The final category is "Create," with strategies such as generating, planning, and producing.

Later on, Churches (2008) presents various tools and activities that are linked to Bloom’s Taxonomy. While the elements and actions in the revised taxonomy are relevant to various classroom practices, they do not encompass the more recent objectives, processes, and actions that have arisen with the integration of Information and Communication Technologies (ICT) in the classroom and its effect on students’ lives. This different version of the taxonomy is mainly rooted in Anderson and Krathwohl’s (2001) taxonomy but expands to include additional digital technologies and digital cognitive goals.

Regarding how to benefit from posing questions to students, there are several strategies than teacher can apply, ranging from structuring, pitching and putting (signposting), directing and distributing, listening to replies, responding, and sequencing questioning (Wragg & Brown, 2003). When structuring questions, teachers can organize the sequence of questions and the topic being covered by providing an introduction, reviewing a set of questions, or stating lesson objectives. Pitching and putting refer to selecting the appropriate level of recall/thought and narrow/broad dimensions when formulating questions. Directing questions can take various forms such as calling out a student’s name or using gestures, while distributing questions across the class can engage more students. Teachers can also respond to questions and comments in various ways, such as paraphrasing or probing. Finally, question sequencing that involves organizing sequences based on important questions and presenting compelling information pertinent to the questions being asked.

In the current context of the coronavirus outbreak and students’ preference for smartphones and tablets, teachers must develop their students’ abilities through questioning strategies in online classes (Harunasari et.al, 2021; Alnujaidi, 2021; Maphosa, 2021; Berrada, et.al., 2021; Mishra, Gupta & Shree, 2020). In this situation, Bloom’s Digital Taxonomy by Andrew Churches (2008) introduces the use of Information and Communication Technology to enhance online teaching and learning. Churches suggests various tools and activities, such as Google, Podcasts, blogging, subscribing, bookmarking, posting, and collaborating, that can be used to support teachers’ questioning strategies in the teaching process. By utilizing these tools and activities, teachers can improve the
effectiveness of their questioning strategies in online classes, thus enhancing their students’ learning experience.

A range of tools and activities can be used to engage students in the teaching and learning process. Harunasari & Halim (2019) suggest that the use of technology has a direct, positive impact on students’ engagement and self-directed learning. Therefore, selecting the right tools and activities is a critical component of a teacher’s instructional strategy, particularly in an online class as teachers play a crucial role in the teaching and learning process, acting as controllers, facilitators, and directors, according to Brown (2000) and Harmer (2007). As controllers, teachers decide what students should do, when they should speak, and what language forms they should use. As facilitators, they help make the learning process easier and more comfortable for students. And as directors, they should employ questioning strategies to enhance students’ abilities in the classroom.

Effective communication between teachers and students is essential for successful learning, and this requires the use of a questioning strategy as interaction lies at the heart of communication in the age of communicative language teaching (Chowdhury, 2005; Wragg & Brown, 2003; Wu, 2010). Without an effective questioning strategy, classroom interaction can devolve into a one-sided conversation dominated by the teacher, or become overly communicative but lack direction and focus. In the same vein, Akkaya and Demirel (2012) also proposed that achieving an effective reading ability is closely associated with questioning strategies posed in pre-reading, during-reading and post-reading activities.

Effective questioning can significantly improve students’ thinking and learning, but too much questioning can lead to anxiety, while too little can stifle thought (Nicholl & Tracey, 2007; Brown, 2000). Therefore, it is important to use a variety of questioning techniques to stimulate active learning, while also encouraging students to ask their own questions and become active participants in the learning process. The significance of questioning strategy in the teaching and learning process can be explained by several reasons. Asking questions can enhance recall, promote understanding, stimulate imagination, and foster problem-solving skills (Nappi, 2017; Brown, 2000). The teacher’s questions serve a purpose in guiding the students’ learning process, and their effectiveness can be evaluated based on the responses received.

Numerous studies have explored the impact of questioning strategies on teaching and learning. Deed (2009) stated that strategic questions are useful in providing metacognitive knowledge and enabling teachers to examine a learning experience. It was concluded that the use of strategic questions was a helpful reflective approach to learning. In the same vein, Godfrey (2001) confirms the finding of previous studies regarding ESOL teachers’ emphasis on the use of questioning in language classroom to provide more opportunities for learners to apply critical thinking ability. Chin (2007) conducted research on an EFL setting, but with a distinct approach. Chin aimed to investigate the utilization of questioning by educators during classroom discussions to promote active and analytical thinking among students, resulting in an improved understanding of scientific concepts. Feng’s (2013) research delves into the specifics of how questioning techniques employed by teachers can bolster higher order thinking skills among college and university EFL students. The study highlights the significance of utilizing higher order questions that target cognitive processes at the top of Bloom’s Taxonomy, such as analysis, synthesis, and evaluation, in order to improve EFL
students’ ability to think critically. Along the same line, Feng (2013) stresses that the use of higher-order questions is crucial for the advancement of EFL students’ critical thinking abilities.

While previous research has focused on questioning strategies in traditional, face-to-face classes, this study aims to explore the unique challenges and opportunities presented by online learning environments. Specifically, the researchers seek to identify the types of questions used by EFL teachers, as well as the reasons behind their use, in order to assess the effectiveness of these questioning strategies. To achieve this goal, the study focuses on three primary research questions:

1. What types of questions do EFL teachers use in online reading classes?
2. How do these questioning strategies differ from those used in traditional, face-to-face classes?
3. What factors contribute to the frequent use of a particular questioning strategy in online reading classes, and how effective are they at promoting student learning and engagement?

By addressing these research questions, the study aims to provide valuable insights into the challenges and opportunities of online learning, as well as the most effective ways to engage and support students in online learning environments.

**Research Methods**

This research adopts a qualitative approach to explore and comprehend the meanings that individuals or groups attribute to a social or human issue (Creswell, 2014). The Triangulation method was used to validate and corroborate research findings. The participants for this study are two teachers and thirty three students. The student participants were second-year students majoring in English enrolled in the Reading Academic-Text class; they are in level A2-CEFR. The teachers are females and in a teaching team. Both have a Master's degree in English Language Teaching. The class was supposed to be taught on-site. However, the social distancing policies had pushed the class to be delivered on-line utilizing free online learning platform, Google Classroom. The class sessions were delivered in synchronous and asynchronous modes. The synchronous sessions were delivered in videoconferencing using Zoom.

The research utilized three distinct methods of data collection, namely interview, observation and documentation. Research data were collected by recording three synchronous sessions and conducting an interview with the teacher to gain insights from their perspectives on the implementation of questioning strategies. The recordings were later transcribed to provide information of teacher’s frequencies of posing questions. An observation checklist was employed to categorize the questions posed. The checklist was types of questions posed. After that, a qualitative interview was conducted to gather in-depth information from the teacher about the questioning strategies employed and the underlying reasons for doing so. The interview was open-ended, recorded and transcribed for analysis. Additionally, documentation was achieved by keeping a journal throughout the research study (Creswell, 2014).

Prior to data analysis, several steps need to be taken. According to Miles and Huberman (2014), data analysis involves three concurrent flows of activity: data condensation, data display, and conclusion drawing/verification. To triangulate the data, there were three data sources involved. Data obtained from transcribed recording of teachers posed questions were used to answer the first and second research question. Data taken from the transcribed interview were used to answer the
third research question. To enhance the quality of the analysis and check for possible researcher biases peer debriefing and external auditors were conducted (Creswell and Miller, 2000).

**Findings**

**Types of Teacher’s Questions**

Table 1 presents the data collected from three sessions of classroom observation, indicating that the total number of teacher’s questions was 84. The first meeting had 39 questions, the second had 27, and the third had 17.

Table 1: Types of Teacher’s Questions

<table>
<thead>
<tr>
<th>No.</th>
<th>Types of Questions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Remember</td>
<td>9</td>
</tr>
<tr>
<td>2.</td>
<td>Understand</td>
<td>38</td>
</tr>
<tr>
<td>3.</td>
<td>Apply</td>
<td>13</td>
</tr>
<tr>
<td>4.</td>
<td>Analyze</td>
<td>23</td>
</tr>
<tr>
<td>5.</td>
<td>Evaluate</td>
<td>1</td>
</tr>
<tr>
<td>6.</td>
<td>Create</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total Number of Questions 84**

Type of question “Remember” was used by the teacher 9 times to help students in recognizing or recalling facts or something about the previous lesson or the things that students already knew.

Excerpt 1:

“What are the differences between gestural and facial?”

This question posed in Excerpt 1 indicated that the students had already learned about gesture communication in the last session, and in the current session, they will be learning about facial communication. The purpose of the teacher asking the remember question was to reinforce the students’ basic knowledge by retrieving information from their memory about the topic covered in the previous session.

The type of question known as “Understanding” was used by teachers 38 times. This type of question required students to identify relevant features or patterns that apply to specific instances or concepts. For example, the teacher asked questions such as the following:

Excerpt 2:

“Who do you think they are? Are they friends or sisters? Or teacher and student? Or are they neighbors or what? What are they holding?”

The teacher then presented a picture and asked students to identify the concept or idea associated with it. However, there was different format in which these questions was presented.

Excerpt 3:

“What does he feel?”
In Excerpt 3 the student was required to analyze the situation and explain their thoughts to the teacher and class. This type of questioning assisted students in improving their ability to comprehend situations and articulate their thoughts regarding the material. Upon observation, it was noted that there were 13 questions that shared the same format, but these questions were only present in the initial observation.

Among the 23 questions observed, the type of question "Analyze" was the second most frequently used by the teacher. An example of this type of question is as follow:

Excerpt 4:

"Now here, Which sentence is in passive voice? Can anyone tell us? Is there any?"

The type of question presented in Excerpt 4 helps students improve their comprehension skills by identifying and understanding different sentence structures in the reading passage. It is interesting to note that across three sessions, there was only one "Evaluate" type of question; there was not any type create question that was posed.

**Questioning strategies employed by teachers in online reading classes**

The teacher utilized questioning strategies a total of 70 times, with the specific strategy employed varying depending on the material being taught. Below are the results of the questioning strategies used in the reading class.

![Figure 1: Teacher's Questioning Strategies](image)

Figure 1 reveals that in online reading classes the teachers mainly employed directing and distributing questioning strategies (31%). This strategy was used by directing question to every student. However, the teachers selectively posed question to students in the class, and used it only when it was necessary.

The responding strategy was used twenty-one times (30%). Responding to students' replies was somehow rather challenging but it helped students in conveying enthusiasm and gaining interest into the material. To overcome the challenges, one of the strategies used was praise contribution.

Excerpt 5:

"Okay, yes, you are almost there. There is actually one of the type of distance. Ya what is proxemic in general, proxemic distance in general? Anyone can add? Ya thank you Yakhsan you are almost there. Ya the others please."
Excerpt 5 shows the way the teacher responded to the students who were willing to answer a question. By saying “Ya, thank you Yakhsan, you’re almost there,” the teacher provided effective praise that boosted the student’s enthusiasm and encouraged them to become more engaged in class discussions. In addition, the teacher employed PowerPoint to pose questions to the students that could be responded to through the Zoom’s chat box feature. This allowed the answers to be sent directly to the teacher, preventing other students from copying each other’s responses.

**Factors contribute to the frequent use of a particular questioning strategy in online reading classes, and how effective, and how effective they are at promoting student learning and engagement.**

During interviews with the teachers, several reasons for using these strategies were uncovered. In addition to this, the teachers discussed the use of tools that could aid in formulating questions, particularly since the class was conducted online. At the beginning of the lesson, the teachers utilized the directing and distributing strategy to capture the students’ attention. By posing direct questions to two students, the teacher aimed to engage the class and generate interest in the upcoming material.

The teacher also frequently employed the responding strategy as the second most utilized questioning technique. Unlike the directing and distributing strategy, where the teacher posed questions to every student in the class, the responding strategy only required responses from the students. Therefore, the teacher could obtain responses without interrupting students’ attention or attendance.

Furthermore, the sequencing strategy was also utilized by the teachers since the class was based on a textbook. As most of the questions in the textbook followed a similar format, the teachers structured the lessons accordingly. Although the teachers primarily utilized the textbook as the main material, they were still able to adjust the questions to suit the situation. The sequencing strategy started with broad questions before narrowing them down to more specific ones. This approach enabled the teachers to delve deeper into the subject matter beyond what was provided in the textbook. Consequently, students had more opportunities to enhance their understanding of the material.

Apart from the aforementioned questioning strategies, the teachers also emphasized the importance of utilizing technology tools to pose questions in an online class. For instance, the chat box feature in Zoom meetings could facilitate communication between teachers and students. The chat box feature allowed the teacher to directly ask questions to every student and receive original responses. This feature was also beneficial in identifying which students were actively participating in class. Since the students sent their answers directly to the teacher, they could not simply copy from their peers. Therefore, the teacher received a diverse range of answers from students.

**Discussion**

Based on the findings, from three sessions of classroom observation, the total number of teacher’s questions was 84 comprising C1 to C6: 9 remember’s, 38 understand’s, 13 apply’s, 23 analyze’s, 1 evaluate 1, and 0 create. The type of question “Remember” was used by the teachers to help students in recognizing or recalling facts or something about the previous lesson or the things
that students already know. This type of question that was employed at the beginning of a lesson or when transitioning from one topic to another served various purposes, such as assessing students' comprehension, evaluating their fundamental knowledge, or achieving other objectives.

The type of question "Understanding" was used by teachers to require students to identify relevant features or patterns that apply to specific instances or concepts. This type of question, aiming at promoting understanding, used visuals to provide clues and help students grasp the material.

"Applying" questions was used by the teacher to help students to get more understanding by applying some procedures. By incorporating this type of question, the teacher expected the students to comprehend and retain what they had learned. This type of question helped students improve their comprehension skills by enabling them to identify and understand different sentence structures in the reading passage. By deconstructing the author's intention in their own words, students could develop critical thinking skills and improved their ability to comprehend written material.

There was only one "Evaluate" type of question used. This type of question was useful in helping students to make judgments based on criteria and standards. The students had already learned about the various criteria and standards for each stage, therefore they could evaluate their own experiences and make a judgement accordingly. Overall, these findings are in line with Anderson and Krathwohl's (2001) hierarchy of question types that span from simple recall questions to those that necessitate more intricate reasoning.

The most used questioning strategies in EFL Reading Online Class were structuring, and directing and distributing. These strategies encouraged students' engagement and learning participation. Structuring questions strategy helped students to review what they had learned from the previous lesson before going into the new materials. This finding are in line with Wragg and Brown (2003) that state structuring strategy can be used in various forms. They were a brief exposition of the topic, a review of a series of questions, and an explanation based on the previous lesson. The strategies has also been proven to pique students' interest, assess their understanding, and align the teaching process with the learning contents. It could be recognized from the backchanelling activity where teacher proposed questions and allowed students to respond directly to the teacher through the use of chat box in Zoom. This backchanelling was also beneficial in identifying which students were actively participating in class. Moreover, as students sent their answers directly to the teacher, they were unable to simply copy their peers, leading to a diverse range of responses. This way, the teacher could receive a diverse range of answers from students. This finding highlights the usefulness of commonly used tools in assisting the teacher to pose questions effectively. This finding is in line with Harunasari & Halim (2019) who suggest that appropriate tools help facilitate class discussion and encourage active interaction and that the use of technology has a direct, positive impact on students’ engagement and self-directed learning. The activity of messaging using chat box that is also called Backchannelling (Harunasari & Halim, 2019) has made students engaged during learning lectures and class discussions. Overall, the findings of this study aligne with Wragg and Brown’s (2002), Almasi & Fullerton (2012), Chi (2013), Cho & Ma (2020) who emphasize the importance of questioning strategies to stimulate students' curiosity and interest.
The most used questioning strategies were directing and distributing, and responding. Directing and distributing strategies took the form of the teacher giving questions either directly, or indirectly. By using distributing questioning strategy, the teacher gave every student a chance to answer the question. However, when the question was posed without directing it to one of the students, the answer to the question mostly came from the same student who actively participated in answering teachers’ questions. This finding supports what has been proposed by Wragg and Brown (2001) that indirect questions often resulted in chorus answers and a lack of control. On the contrary, when teacher posed direct questions to students, the teacher aimed to capture the attention of the class and generate interest in the upcoming material. This is in line with what has been suggested by Spronken-Smith et.al., (2008) that teachers’ questions can offer significant advantages to students as they take an active role in the learning process, leading to better understanding and more enjoyable learning experiences. Additionally, it encourages student engagement and learning.

In addition to the questions, as a part of the attendance procedure in the online class, when the teacher requested students to turn on their cameras, students could display their expressions, and others could try to guess their emotions. Using tools such as the camera was a way to incorporate the directing and distributing strategy into the teaching process, resulting in livelier lessons and more engaging discussions. This finding is in line with Harunasari & Halim (2019) who suggest that appropriate tools help facilitate class discussion and encourage active interaction and that the use of technology had a direct, positive impact on students’ engagement and self-directed learning.

The study also identified 21 instances, or 30%, in which the teachers used responding strategies in teaching reading online. One of the responding strategies used was praise contribution. Teacher should praise students in the right way to raise their enthusiasm. This strategy has been evident in helping students to be more active in the classroom discussion. Another responding strategy that teacher used was correcting. The teacher would correct part of the answer that was incorrect and made the students understand what was wrong with their answer. In some cases, when the teacher responded to correct the replies from the students, the teacher would ask other students to correct it, or to give back the question to the same person to correct it by himself. The practice of using responding strategy in this study is in line with what Wragg and Brown (2003) stated that there are lots of forms of responding strategies in giving a question. They are ignored, acknowledged, repeated verbatim, part of answer echoed, paraphrase, praise contribution, corrected, prompted, and probe form. However, this study only reveals some form of responding strategy; they are praise contribution, correction, repeated verbatim, and part of answer echoed.

Conclusion

Returning to the research questions posed at the beginning of this study, it is now possible to state that the effective questioning strategies in EFL Reading Online Class are directing and distributing, and responding. These strategies ensure students’ engagement and learning participation. Moreover, the strategies also pique students’ interest, assess their understanding, and align the teaching process with the learning contents. Additionally, the teacher also found the benefits of digital backchannel tools in proposing questions and allowing students to respond directly to the teacher. However, there should be prior considerations of 1) appropriate online
teaching strategy to sustain teacher-students interactions; 2) students level of mastery; and 3) HOTs questions to promote students’ critical thinking. Future research with a wider range of data is recommended to further explore the effectiveness of questioning strategies, especially in online classes. Other researchers should also explore students’ perceptions of teachers’ questioning strategies.

References


