

DEVELOPING CRITICAL THINKING SKILLS: AN INVESTIGATION INTO QUESTIONING STRATEGIES USED IN CLASSROOM

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Abstract

The ability to think critically is a skill that is currently required of all students because it can lead to the acquisition of a great deal of beneficial learning outcomes. Teachers play a crucial role in preparing and contributing to the development of a classroom environment that fosters critical thinking. Among the various methods to cultivate critical thinking, questioning strategies remain the most commonly used approach by teachers in their classrooms. For example, during pre-activity sessions, teachers may ask students about previous lessons or activities they participated in over the weekend. Within the context of teaching and learning English as a foreign language, particularly in speaking classrooms, this study aims to investigate how instructors implement questioning tactics from multiple perspectives and methodologies, as informed by various experiences and literature. This literature review draws on 15 academic journal articles and several relevant books published in the last 10 years, focusing specifically on questioning strategies in EFL (English as a Foreign Language) speaking classes. The results provide practical insights into how questioning strategies can enhance students' critical thinking abilities, which is fundamental for successful teaching and learning as outlined in the curriculum.

Keywords: Questioning Strategies, Critical Thinking Skill

Introduction

The ability to critically think is essential for analyzing data, evaluating arguments, and making well-informed decisions, particularly in the educational context. In today's rapidly evolving world, critical thinking is not only a desired skill but also a fundamental requirement for success, both academically and professionally (Clark, 2011). There has been ongoing debate about whether critical thinking skills should be developed through general curricula or specific subjects. However, researchers globally agree on the vital role critical thinking plays in an individual's cognitive and intellectual growth (Paul & Elder, 2019). In education, critical thinking enables students to navigate complex information, assess arguments, and arrive at rational conclusions, equipping them with skills that are essential in the modern world.

Critical thinking is not confined to specific subjects or content areas. According to Paul (2007), it serves as a tool

for enhancing thinking by avoiding irrationality and illogical reasoning. Critical thinking encompasses the ability to think logically, reason effectively, and consider multiple perspectives before making a judgment. This skill is particularly important in a world overwhelmed by vast amounts of information where distinguishing between facts and opinions is crucial for problem-solving and informed decision-making (Halpern, 2014). Moreover, the development of critical thinking fosters adaptability and resilience, enabling individuals to approach challenges with a rational mindset rather than relying on emotions or biases. This is increasingly important in both academic and professional environments where sound judgment is required (Bandura, 1995).

In addition to its academic benefits, critical thinking enhances creativity and innovation. It encourages individuals to think beyond conventional boundaries, explore new possibilities, and challenge the

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status quo. As such, fostering critical thinking is essential for developing a society that values intellectual curiosity and continuous learning (Eric & David, 2020). Questioning strategies, a key pedagogical tool, play a significant role in nurturing critical thinking in students. Research has shown that well-designed questions help students explore topics in depth, challenge assumptions, and engage with content on a deeper level (Lisa & Mark, 2008). However, despite their proven effectiveness, questioning strategies are not always fully utilized in the classroom, particularly in the context of teaching English as a foreign language (Grant, 2013).

This study focuses on investigating the use of questioning strategies in English as a Foreign Language (EFL) speaking classrooms. While there is a wealth of research on questioning techniques, the gap lies in how these strategies can be implemented specifically to enhance critical thinking skills in EFL settings. Previous studies have primarily focused on general classroom dynamics, but few have addressed the unique challenges and opportunities within EFL speaking classrooms (Faith, 2011). Therefore, this research aims to explore the role of teachers' questioning strategies in promoting critical thinking in EFL students, contributing to the ongoing discourse on pedagogical best practices in language education.

Methodology

This research adopted descriptive qualitative approach to explore the role of questioning strategies in teaching, aimed specifically at developing critical thinking skills. The data explore the role from some sources about the role of questioning. Some articles were read, sourced through a manual search of these through the relevance and currency of the publications. These criteria included works published in

The search strategy employed a combination of keywords such as "critical

thinking," "questioning strategies," "teaching methods," and "literature education," tailored to identify the most relevant sources (Wilén, 1982). The manual search process involved systematically screening abstracts, titles, and keywords, followed by a full-text review to ensure that the sources met the inclusion criteria. This method was chosen to explore the role in some references.

Data analysis was conducted by reading and summarizing each relevant source and describe it,. The analysis also focused on evaluating the effectiveness of various questioning strategies, as suggested by Lau & Kuziemy (2016). Key themes were synthesized to develop a comprehensive framework of effective questioning strategies designed to enhance critical thinking skills in students.

A critical evaluation was performed to assess both the strengths and limitations of the existing body of research. This evaluation helped to identify gaps in the literature, such as areas where questioning strategies had not been fully explored in EFL contexts or where additional research was needed to validate existing findings (Booth et al., 2016). The findings of this study were organized into a structured format, including an introduction, literature review, methodology, results, discussion, and conclusion, providing a thorough analysis of how questioning strategies contribute to the development of critical thinking skills.

Finding and Discussion

Finding

The theoretical models of critical thinking suggest that higher-order cognitive abilities, such as analysis, evaluation, and synthesis, are more likely to emerge in those who actively challenge and question ideas. Inquiry not only strengthens cognitive capacities but also fosters intellectual curiosity and a deeper comprehension of complex concepts. Furthermore, numerous studies have demonstrated that students are

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better equipped to make defensible decisions and solve problems when they are encouraged to critically analyze and question the material. In the context of this research, the objective was to explore how questioning strategies can foster critical thinking development in educational settings, particularly within EFL classrooms. The research question (RQ) guiding this study was: How can questioning strategies effectively enhance students' critical thinking skills in the classroom?

Incorporating questioning strategies into teaching methods fosters the development of a new generation of creative thinkers who are prepared to meet future challenges. Teachers play a vital role in inspiring students to become active learners who strive to understand the world around them by encouraging a culture of inquiry in the classroom. By posing "why" and "how" questions, teachers aid in the development of critical cognitive abilities, leading to increased information retention and a more profound understanding of complex topics. Additionally, students who are encouraged to investigate and challenge multiple perspectives tend to develop empathy and tolerance for differing ideas. As a result, teachers can cultivate intellectual curiosity and lifelong learning in their students by creating a classroom environment that promotes questioning. Ultimately, equipping students to ask meaningful questions empowers them to take an active role in their education and their contributions to society.

According to Razia et al. (2018), this teaching method not only helps students become more adept at critical thinking but also equips them to be informed and engaged citizens. Students who learn to ask insightful questions are better able to analyze data, assess sources, and make well-informed decisions, particularly in today's fast-paced, information-rich environment. Moreover, promoting inquiry and the exploration of diverse viewpoints among

students fosters a more profound understanding of diversity and an increased capacity for empathy. In this study, questioning strategies were found to be an effective tool for encouraging students to think critically and approach challenges with confidence. Teachers who model a growth mindset and encourage students to embrace challenges contribute to the development of students' resilience and adaptability, traits that will serve them well beyond the classroom.

The role of questioning in the development of critical thinking skills cannot be overstated. By pushing students to critically evaluate the material they encounter, teachers help them gain a deeper understanding of complex situations. This method also stimulates creativity and innovation, encouraging students to think outside the box and discover new approaches to solving problems. As Paul & Elder (2002) assert, "thinking is question-driven," and fostering inquiry is one of the most effective teaching strategies (Higgs et al., 2010). According to Smith (2003), various types of questions—ranging from those with right or wrong answers to open-ended inquiries—are significant. Balancing these different question types helps stimulate students' curiosity and cognitive development, ultimately fostering a classroom environment that encourages critical thinking and creativity.

Effective questioning techniques can provoke students' mental processes, pique their curiosity, and encourage them to practice answering open-ended questions. This leads students to become more critical thinkers. However, the findings of this research revealed that many teachers still lack advanced questioning techniques. Their questions are often limited to everyday inquiries, such as those related to daily activities or simple, closed-ended questions that require one-word responses. This limitation restricts students' opportunities to engage in deeper thinking and critical inquiry. The findings emphasize

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the need for teachers to develop stronger pedagogical skills, particularly in the area of questioning strategies, to foster critical thinking in students.

By encouraging students to ask insightful questions, teachers can develop students' autonomy and independence, allowing them to take greater control of their learning. As students learn to trust their own judgment and seek answers independently, they develop confidence and a greater sense of agency in their educational journey. Moreover, fostering questioning in the classroom helps students develop essential problem-solving skills. The process of inquiry enables students to think critically, gather relevant data, and formulate well-reasoned solutions to challenges they face. This active approach to learning benefits students both academically and professionally, preparing them for success in future endeavors.

Discussion

The findings of this study align with earlier research emphasizing the beneficial effects of teacher professional development on student performance. For instance, Darling-Hammond et al. (2017) demonstrate that high-quality professional development leads to improved teaching practices and better student outcomes. This study also underscores the significance of continuous professional development in schools. Schools can establish a dynamic and encouraging learning environment by investing in the ongoing education and professional growth of their teachers, which in turn promotes success for all stakeholders involved (Guskey & Yoon, 2009). This approach fosters not only instructional improvement but also a collaborative and innovative culture within the school community. Achieving high educational outcomes continues to depend on schools placing a high priority on professional development, as they work to adapt to the evolving needs of students and society (Desimone, 2009).

Moreover, research indicates that teacher development raises student motivation and engagement, leading to higher academic achievement and improved overall wellbeing (Boyle et al., 2005). Teachers who have access to the tools and resources necessary to advance their knowledge and abilities are better equipped to meet the diverse needs of their students, providing personalized support. In the end, funding teacher professional development is, in essence, an investment in the future success of both students and the school community as a whole (Avalos, 2011). To foster an environment of excellence and continual development, schools must recognize the importance of lifelong learning and professional growth for teachers.

However, this study acknowledges its limitations, such as the small sample size and restricted participant pool, which may affect the generalizability of the findings. Similar concerns were noted by Garet et al. (2001), who emphasized that small, localized studies might not always represent broader educational contexts. Furthermore, the survey focused solely on teachers' perspectives, ignoring the viewpoints of other important stakeholders such as parents, administrators, and students. Future research should adopt a more comprehensive methodology, taking into account diverse perspectives to provide a fuller understanding of the impact of professional development on student outcomes (Desimone & Garet, 2015).

Despite these limitations, the study's findings align with prior research indicating that funding teacher professional development significantly enhances both student achievement and overall school performance (Yoon et al., 2007). Future studies on this subject can benefit from incorporating the viewpoints of administrators, parents, and students to offer a more nuanced assessment of professional development's impact. This holistic approach would not only provide a more

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accurate evaluation of its influence on student outcomes but also help tailor professional development programs to better suit the needs of all stakeholders involved (Borko, 2004).

The study also calls for further investigation into specific aspects of professional development that have the most substantial impact on teacher effectiveness. Research by Timperley et al. (2007) suggests that long-term professional development initiatives have a more sustained effect on teacher practice and student achievement. Additionally, the role of school leadership in promoting and implementing effective professional development initiatives should be explored (Leithwood et al., 2004). Furthermore, future research could focus on the effects of technology-based professional development resources on teacher practice and student outcomes, as well as the potential benefits of collaborative professional development opportunities among teachers within a school or district (Vescio et al., 2008).

By addressing these areas of inquiry, future studies can deepen our understanding of the complex relationships between student performance, teacher effectiveness, and professional development. Ultimately, exploring these diverse facets of professional growth will help teachers create more supportive and productive learning environments for their students. Policymakers and school administrators can use these insights to make informed decisions about investing in and fostering teacher development. As research continues to reveal the ways in which professional development affects teacher practice and student outcomes, the educational system will be better equipped to enhance the academic achievements of all students (Darling-Hammond et al., 2009).

Conclusion

The findings of this research emphasize the crucial role that questioning strategies (SQ) play in developing students' critical thinking (CT) skills. By incorporating SQ into

teaching methods, educators can cultivate an environment that promotes deeper cognitive engagement, encouraging students to go beyond surface-level understanding. The ability to critically analyze, evaluate, and synthesize information is essential for student success both in the classroom and in real-world scenarios. Through the strategic use of questioning, teachers can guide students to explore complex ideas, challenge assumptions, and connect the material to their own experiences and the world around them.

The importance of fostering critical thinking through questioning is not limited to enhancing academic performance; it also equips students with lifelong skills that they can apply beyond their school years. When teachers use questioning techniques to encourage thoughtful dialogue and inquiry, they are nurturing not only a love for learning but also the ability to think independently and creatively. As Paul & Elder (2002) assert, critical thinking is question-driven, and this research underscores that educators must be intentional about the questions they ask to stimulate intellectual curiosity and develop students' critical faculties.

Additionally, the study highlights the need for continuous professional development (TPD) for teachers, particularly in honing advanced questioning strategies. As teachers refine their pedagogical approaches, especially in the use of SQ, they can better address the diverse learning needs of their students. The link between effective questioning and the development of CT skills reinforces the idea that professional growth for educators should focus on mastering these techniques to foster deeper student engagement and learning.

Ultimately, this research reaffirms that teaching students to think critically through questioning techniques benefits not only their academic success but also their ability to navigate the complexities of life

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with confidence and creativity. Teachers who consistently promote critical inquiry in their classrooms are preparing students to become independent thinkers who can confidently face future challenges. By making SQ a central part of the learning process, educators are investing in the intellectual growth of their students, which will serve them well in their personal and professional lives.

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