Journal of English for Specific Purposes Praxis
ISSN: 3092-7854
https://www.jespp.ir
Vol. 1, No. 1; 2024, January
Article Citation:
Azadbakht, Z., Ostad, O., Heidari, H., Rastegar, B. (2024). Merging critical thinking into classroom dynamics and teachers' higher-order questioning through Bloom's Taxonomy. *Journal of English for Specific Purposes Praxis, 1*(1), 97–118. https://doi.org/ 10.22034/jespp.2024.576346.1043
PARADISE
NEGASHT PUBLISHING
JESPP

Merging Critical Thinking into Classroom Dynamics and Teachers' Higher-Order Questioning Through Bloom's Taxonomy

Zeinab Azadbakht [1], Omid Ostad [2,*], Hadi Heidari [3], Behnaz Rastegar [4]

[1] Department of English Language and Literature, Faculty of Literature and Languages, Arak University, Arak, Iran; zei.azadbakht@gmail.com

[2,*]Corresponding author, Department of English Language and Literature, Faculty of Persian Literature and Foreign Languages, Allameh Tabataba'i University, Tehran, Iran; omidostad007@gmail.com

[3] Department of English language, Faculty of Humanities, Imam Khomeini International University, Qazvin, Iran; hheidari67@gmail.com

[4] Department of English Language Teaching, Farhangian University, Tehran, Iran; rastegar.beh@cfu.ac.ir

Original Research Article | Date of Submission: 08 July 2023 | Date of Acceptance: 29 December 2023

Abstract

Teachers' questioning skill in improving students' higher-order questioning is necessary for the development of the students' critical thinking. The current study attempted to extend the critical thinking line of research into EFL teacher effectiveness and teacher education studies, to see whether the critical thinking ability of Iranian EFL teachers has any significant relationship with the types and frequencies of those teachers' questions using Bloom Taxonomy (Bloom, 1956). In so doing, 20 male and female Iranian EFL teachers were selected purposively and observed during the teaching process of the same reading comprehension texts. Participants were divided into three groups of high, mid, and low critical thinkers based on their scores on The California Critical Thinking Skills Test-form B (CCTST-B-34). To quantify classroom interaction, a Bloom-based coding scheme was applied to tally and classify the cognitive depth of reading comprehension questions generated by students during observed sessions. The data collection procedure began with the administration of the CCTST-B, followed by systematic classroom observations over a designated instructional period to record student question frequencies. Finally, non-parametric correlation analyses, specifically Kendall's tau-b and Spearman's rank correlation coefficient, were executed to determine the direction and strength of the relationship between teacher scores and student questioning patterns. The findings showed significant positive correlations between the number of the questions EFL teachers posed in the classroom based on Bloom's taxonomy. Moreover, the findings of the study showed that there was a significant relationship between critical thinking and the types of questions. This study indicated that teachers do benefit from higher level of questions, such as applying, analyzing, evaluating, and creating, which caused classroom interaction. Hence, asking the right questions is a good method in ESL/EFL reading classes because it develops team work and provides a socially rich situation where the students can learn effectively. Such questions encourage students to think independently, improves their critical

thinking, and also helps them in better decision making and problem solving. The study concludes by highlighting the implications to use authentic texts, along with adopting Bloom's Taxonomy as a practical guide for curriculum design to further amplify learners' ability to reflect, question, and construct meaning.

Keywords: Bloom Taxonomy, classroom dynamics, critical thinking, higher-order questioning, language acquisition, reading comprehension, teacher questioning

1 Introduction

Communication between teachers and learners has always been of significant importance to the efficiency of second language teaching. The skill of raising appropriate questions is a skill at language teachers' disposal which has a considerable potentiality to enhance the teaching quality. It also helps learners focus their attention on course content, arouses their curiosity and motivation, and discover their own ideas, and sharpens their critical thinking skills.

Research demonstrates that a teacher's own critical thinking capacity heavily dictates how reading tasks are framed, which can shift the classroom dynamic from passive text consumption to active meaning construction (Liu & Yan, 2022). Zhou (2024) indicated that rather than merely verifying literal comprehension through traditional, closed-ended inquiries, instructors with higher cognitive processing skills tend to design environments where the density and variety of questions increase substantially.

However, many teachers have difficulties in improving their students' questioning skills effectively as they often stick to shallow questions which can lead to rote learning in learners' minds. This can prevent the growth of critical thinking on the part of learners. Educational systems, therefore, need to instruct learners to think critically rather than direct teaching and filling the information into their heads (Davoudi & Sadeghi, 2015). Omar and Mohamed (2024) also highlighted the shift in how reading strategies help teachers ask more higher-order questioning to move students past basic decoding and into deep textual evaluation.

The strategic application of Bloom's Taxonomy within EFL reading instruction plays a pivotal role in cultivating students' critical thinking abilities by transforming classroom questioning from passive text recall into active analytical reasoning (Živković, 2016). In language teaching, structured questioning frameworks are recognized as foundational tools that directly enhance learners' linguistic proficiency, reading comprehension depth, and broader academic success (Brahim, 2021; Warliati et al., 2019). EFL can systematically align their classroom questions with Bloom's hierarchical cognitive levels, and they can deliberately guide students past basic decoding and literal comprehension, prompting them instead to generate high-order inquiries that require text analysis, evaluation, and independent meaning construction.

Integrating Bloom-based strategies into EFL curricula has shown measurable benefits across key language domains, including the skills of reading, writing, speaking, and components such as vocabulary development (Khodadady & Ghanizadeh, 2011; Liu, 2019). Moreover, when teachers activate learners' higher-order thinking, it increases the learners' self-efficacy and reduces their anxiety, which are essential for better language acquisition (Fu, 2023). Icen (2020) believes that EFL teachers' effectiveness is closely tied to their critical thinking capabilities to model and nurture these

skills in students through questioning techniques and argumentative reasoning. To further enhance learners' critical engagement, researchers advocate for the use of diverse textual genres—particularly argumentative texts—which offer rich opportunities for developing evaluative and interpretive skills (Marni et al., 2019).

Singh and Shaari (2019) suggested that students who participate in cognitively demanding tasks (e.g., critiquing and analyzing texts), outperformed others in reading comprehension and overall language performance. In today's information-saturated environment, fostering critical thinking through Bloom's Taxonomy also empowers learners to question assumptions and assess the reliability of sources, thereby promoting more discerning and autonomous language use (Huang, 2023).

As an innovative and multilayered pathway into language teaching, the integration of Bloom's Taxonomy into language acquisition can introduce critical thinking into language learning practices. Teachers can work on its six cognitive levels—remembering, understanding, applying, analyzing, evaluating, and creating—in order to design tasks and improve learners' linguistic proficiency as well as their deeper cognitive engagement. To systematically track this engagement, Bloom's hierarchical categories were utilized as a structural coding scheme to analyze the transcribed classroom recordings. Questions that prompted students to recall specific textual facts or summarize explicit plot points were coded as lower-order cognitive levels (Remembering and Understanding). Conversely, queries requiring students to draw text-to-world connections, break down rhetorical arguments, critique a character's motives, or generate alternative textual outcomes were coded as higher-order levels (Applying, Analyzing, Evaluating, and Creating). Meanwhile, the interpretation of this coded data was directly guided by CT theory, which posits that language acquisition is maximized when learners move beyond passive decoding into active conceptual processing. Under this theoretical framework, a high frequency of student-generated questions at the top four tiers of the taxonomy was interpreted as empirical evidence of a critical classroom disposition. Teacher's instructional style successfully moved learners beyond rote memorization towards more meaningful, analytical, and creative ways. Generally, students can apply Bloom's higher-order thinking skills in different reading and writing tasks to critically evaluate texts, synthesize information, and produce original arguments. This can enhance both language competence and critical thinking ability.

As Stapleton (2011) stated, research on the effect of critical thinking on language learning is not deep and well-grounded and it is still in its infancy. Some have even attempted to show a relationship between CT and reading and writing skills (e.g. Fahim & Ahmadi, 2012; Fahim & Sa'eepour, 2011; Paul & Elder, 2006; Stapleton, 2001).

One of the most prevalent factors of teacher talk is teacher's questions. Teacher's question types determine the type of cognitive activities and skills in which learners involved and consequently most likely to acquire. Teachers' questions can significantly affect the quality of classroom discourse; as they might involve learners in the surface of the passages and prompt learners to reply by referring to the texts, or they may be used as a means to cultivate the seeds of critical thinking skills in learners' minds.

Despite having such a significant value, teachers' questions have not received worthy attention on the part of second language research; particularly, teachers' characteristics contributing to raising special kinds of questions have remained less investigated. Thus, this study is designed to give an account of the relationship between critical thinking and the number and the types of questions an

EFL teacher put to learners in teaching reading. Moreover, it probes the relationship between teachers' gender, education degree, teaching experience and the number of questions they raise in the classroom.

Furthermore, when teachers consciously apply frameworks like Bloom's Taxonomy to their instructional design, it directly impacts the complexity of student engagement and prompts learners to generate their own analytical inquiries during the reading process (Truong, 2024). Consequently, an instructor's personal critical disposition serves as a foundational factor, which directly influences both the quantity and the analytical depth of the questions explored during text-based discussions.

In spite of this profound significance, SLA research has failed to delve into teacher's questions on the basis of a framework pertinent to critical thinking. Thus, findings of this study can enhance stakeholders' awareness of the frequency and types of questions raised in the EFL intermediate classrooms. Further, it can shed some light on the teachers' characteristics which are highly associated with the frequency and types of questions.

Available studies (Iswati & Purwati, 2022; Rahmah et al., 2019; Truong, 2024; Zhou, 2024; Wijaya and Roki'Ah, 2020) frequently tried to explore teacher perceptions of critical thinking or the benefits of teacher-led questioning. However, few empirical studies paid attention to whether a teacher's critical disposition actually influences the frequency and types of questions they empower their students to ask within specific, small-scale classroom ecosystems. This study tried to address this specific empirical gap by quantitatively analyzing the relationship between EFL instructors' critical thinking levels and the actual employment of student-generated reading comprehension questions, offering a clearer picture of how teacher thinking shapes active student engagement.

2 Literature Review

2.1 Theoretical Background

Critical thinking is associated with the development of a person's character since CT consists of exploration, research, enthusiasm, and complete commitment to the logic and desire for reliable information. The second point is that critical thinking needs to mount on the cognitive and meta-cognitive skills related to solving problems, understanding and expressing concepts, recognizing relations, evaluating the validity of statements, recognizing the requirement elements for conclusion, representing the reasons of the individual results, and consciously examining individual actions. In the third stage, critical thinking is established from the formation and development of the mental habits (Costa & Kallick, 2009).

Studies show that teaching of thinking skills has been considered as a main priority in the curriculum of educational training institutes. Critical thinking can motivate learners to obtain the decision-making, problem-solving skills, and creativity. Facione et al. (2009) demonstrated, using the Delphi method, that critical thinking is a process based on the judgment and self-adjustment that results in solving the problems and making the suitable decisions. Promoting critical thinking during the university education requires using the stable training principles in classroom (Facione et al., 2009). Therefore, the educational matters should not be trained directly but also, creating the conflict situation helps them for a higher-level thinking. Revising the curriculum and creating the facilities and

training environment along with using the suitable training methods can play an important role in stabilizing critical thinking (Mehrabi et al., 2011).

In order to achieve these goals, teachers should be introduced with the latest scientific and research achievements in this line using which they optimize their teaching procedures and enhance their professional and general knowledge in teaching process. Language is one of the most important interpersonal communication instruments whose growth and development begins from the time the baby is born and continues to the end of his/her life.

Icen (2020) indicated teachers' significant role in improving educational outcomes of students. Also, it was indicated that schools play important roles in interpersonal differences and the considerable factor in these differences can relate to teachers; particularly different teachers' effectiveness can be a powerful deterministic factor in students' learning. Successful teachers believe that they can make changes in students' learning outcomes and they can be educated on this basis. Teacher's effectiveness is in relation with their self-efficacy (such as teachers' belief and skills and capabilities in self-teaching; Terasne et al., 2022).

2.2 Empirical Studies on Critical Thinking Skills in English Textbooks

2.2.1 CT and Student Questioning

Considering the mentioned points, many researchers have examined and analyzed critical thinking in different fields. For example, Orakcı et al. (2019**)** examined how instructional strategies can improve learners' critical thinking within English language classrooms. In this study, implementing pedagogical approaches such as the use of authentic texts and critical literacy strategies was studied reflectively and analytically on learners' engagement with content and their ability to question, interpret, and evaluate argumentative texts. The findings showed that critical literacy practices developed participants' critical thinking skills. Hence, integrating authentic materials and reflective reading strategies into instruction can promote critical engagement and deeper comprehension among language learners. As stated by Xu (2011), a good critical thinker-teacher by means of asking analyzing and evaluating questions in the teaching setting makes students more critical in order to apply their abilities not only in the learning environments but also in their real life. Ozkan (2010) stated that being aware of types of questions and their effectiveness in teaching and learning environments also encourage teachers to be good critical thinkers for asking high levels of questions in their classroom.

Wijaya and Roki'ah (2020) explored the role of digital resources on the development of critical thinking skills in students' argumentative writing. In this study, online platforms such as YouTube and their integration into instructional practices were examined to ponder on learners' analytical and evaluative abilities. The study also examined the thoughtful use of technology to stimulate critical thinking along with pedagogically sound strategies. It was found that the sound and proper use of modern educational tools significantly contributed to the development of critical thinking competencies among language learners. However, they believed that further studies can better show how digital platforms can be systematically incorporated into curriculum design to support critical literacy and argumentative writing skills.

Prayogi et al. (2022) also examined the impact of critical thinking activities on students' reading comprehension and argumentative writing skills. The participants of the study were asked to

be engaged in tasks designed to promote deeper engagement with argumentative texts (such as analyzing argument components and evaluating logical reasoning) through students' performance in reading and writing tasks. It was shown that there was a significant relationship between critical thinking engagement through text analysis and improvements in both reading comprehension and the quality of argumentative essays. Therefore, applying critical thinking through structured analytical activities was shown to lead to measurable academic gains in literacy-related domains.

In a similar study, Iswati and Purwati (2022) explored the impact of guided discovery learning methods on students' critical thinking development in reading classes. The study focused on how structured instructional strategies could enhance learners' engagement with argumentative texts and improve their analytical reasoning. The participants were students enrolled in reading-focused courses during which guided discovery techniques were implemented to stimulate deeper textual interaction. After the intervention, there was a significant improvement in students' ability to critically evaluate and respond to argumentative content. It was concluded that integrating critical thinking into reading instruction can develop both comprehension and argumentative writing skills. Finally, pedagogical recommendations were put forward for incorporating guided discovery learning into language education curricula in order to support critical literacy development.

The implementation of self-regulation and critical thinking strategies has been proved to enhance vocabulary achievement among Iranian EFL learners, suggesting that critical thinking not only aids in comprehension but also enriches vocabulary development (Hashamdar & Maleki, 2018). This is further supported by Nejad et al. (2022) who found a significant correlation between critical thinking abilities and writing performance among intermediate EFL learners. The findings indicated that critical thinking can improve the quality of the students' written expression. Moreover, critical thinking strategies can facilitate vocabulary acquisition as a challenging aspect for EFL learners due to the vast number of words they need to master (Nejad et al., 2016).

2.2.2 Teacher-led Prompts and Student Engagement via Bloom's Taxonomy

Moreover, studies have shown that teachers can introduce and apply teaching strategies that promote critical thinking to positively influence learners' self-efficacy and anxiety levels (Fathi et al., 2021; Solhi et al., 2024). These factors are crucial factors in language learning as suggested by Fu (2023). Likewise, Liu's (2019) study on using science fiction films in EFL classrooms illustrated how engaging materials can stimulate critical thinking and enhance multi-literacies among learners. Despite these striking findings, these studies consistently overlook the exact interactive mechanisms that bridge teacher cognition and student behavior and the question remains on how a teacher's personal critical thinking baseline directly shapes the types and frequency of questions that students themselves generate during reading tasks.

In similar veins, some other studies have shown that the use of specific strategies, (e.g., visual mind mapping), can improve both critical thinking and reading abilities. For example, Wafa and Khalaf (2021) found that mind mapping helps students create connections between ideas. They contended that this process can enhance students' understanding of texts and their ability to extract relevant information. Additionally, Truong (2024) bridged the gap between teacher prompts and student engagement via Bloom's Taxonomy. However, the study remained largely qualitative and descriptive. It lacked the precise, inferential statistical backing needed to confirm a direct, measurable

relationship between a teacher's measurable critical thinking baseline and the frequency of student-generated inquiries.

While these recent studies highlight the value of critical thinking in EFL reading contexts, several methodological and conceptual limitations need to be explored. For instance, the work of Liu and Yan (2022) strongly advocates for shifting classroom dynamics toward active meaning construction, yet their findings rely heavily on self-reported teacher data. This creates a common social desirability bias, where instructors may overreport their commitment to critical thinking without reflecting their actual, day-to-day classroom practices. Similarly, while Zhou (2024) provides valuable insights into how university students perceive effective teacher questioning, the study focuses predominantly on teacher-led inquiries. This focus leaves a significant gap, failing to address whether high-quality teacher questioning can actually change into empowering learners to generate their own analytical questions.

Furthermore, current research often suffers from contextual gaps. For example, the multi-perspective analysis conducted by Omar and Mohamed (2024) successfully revealed advanced cognitive dimensions in reading, but it did so within highly resourced, large-scale educational environments. Their framework did not account for how these cognitive processes manifest in smaller, highly localized EFL ecosystems where curriculum constraints or specific institutional cultures might restrict instructional freedom. By highlighting and working upon such gaps, the present study directly addresses these empirical evidences, moving beyond descriptive assumptions to quantitatively test the relationship between teacher cognition and student-centered questioning practices.

3 Research Questions

The following research questions are guiding the present study to address the gap in the literature:

1. Is there any relationship between CT level and the number of Bloom-coded questions Iranian EFL teachers have students ask in the classroom in teaching reading?
2. Is there any relationship between CT level and the types of Bloom-coded questions Iranian EFL teacher have students ask in the classroom in teaching reading?

4 Method

4.1 Design of the Study

This study adopted a quantitative, correlational research design to explore the relationship between EFL teachers' critical thinking capacities and the frequency and cognitive types of student-generated questions during reading instruction. A correlational design was highly appropriate for this investigation as it allows the researcher to measure and statistically evaluate the direction and strength of the relationship between two naturally occurring variables without manipulating them or imposing experimental controls. The frequency and specific types of reading comprehension questions generated by students were classified using a Bloom-based coding scheme.

4.2 Participants

Overall, 20 Iranian EFL teachers were asked to record their voices during teaching the same three reading passages, selected from McGraw-Hill. (2005) tests (a sample is added to appendix A). These participants varied in terms of gender, educational experience, academic degrees. The teachers were informed that the data would merely be used for research purposes by the researchers i.e., nobody other than researcher would gain access to the data. Additionally, to eliminate the effect of involving in an experiment on the data, the exact objectives of the study didn't reveal to the participants and the third recording analyzed.

In this regard, firstly, the satisfaction of teachers for participating in the study were asked; then, it is asked for them to try for preserving the quality and quantity of related questions of the context.

4.3 Instruments

4.3.1 The California Critical Thinking Skills Test-Form B (CCTST-B-34)

One of the main necessities of each study is existence of reliable information and ease of access to them. By having the obtained information, an opportunity was provided for the researcher that follows the study and data analyses process for evaluating the aims of the study. Additionally, the researcher obtained the opportunity to consider the time. Learners' degree of critical thinking measured by running California Critical Thinking Skills Test- Form B (CCTST-B-34). In order to evaluate the questionnaire reliability, Cronbach's alpha was used so that the items of the questionnaires were answered by the sample participants. Obtained Cronbach's alpha for the questionnaire obtained the index of .847 which showed high rate and accepted reliability coefficient for the used questionnaire.

4.3.2 Instrument for Bloom-Based Questioning Analysis

To systematically capture and evaluate the cognitive depth of classroom discourse, a structured Bloom-Based Question Classification Checklist was operationalized as the primary observational instrument. Derived from the revised edition of Bloom's Taxonomy (Anderson & Krathwohl, 2001), this checklist serves as an objective matrix to map verbal interactions into clear, measurable cognitive tiers. The instrument breaks down student-generated questions across a two-dimensional framework: Lower-Order Thinking Skills (LOTS; including Remembering, Understanding, and Applying) and Higher-Order Thinking Skills (HOTS; including Analyzing, Evaluating, and Creating).

Before its implementation in the final analysis, the checklist underwent rigorous validation and pilot testing to maximize its psychometric soundness. To confirm that the coding definitions and verbal cues accurately reflected the target cognitive constructs, the checklist was submitted to a panel of three senior academic experts specializing in Applied Linguistics and Applied Cognition. The judges evaluated the instrument and confirmed its robust content validity. The instrument was also pilot-tested using transcribed audio excerpts from an independent intermediate EFL reading class separate from the main study's sample. To establish internal temporal stability, the primary researcher re-coded the same subset after a two-week interval. The intra-rater reliability coefficient was calculated using percentage agreement and Cohen's kappa, yielding an exceptional consistency rating

(kappa = .89), ensuring that the coding matrix remained stable over time and immune to shifting subjective interpretations.

4.4 Data Collection

Firstly, 20 male and female Iranian EFL teachers were selected purposively. In the case of their agreement, teachers' consent to participate in the study was asked and guaranteed. Overall, they were asked to record their voices during teaching the same three reading passages, selected from McGraw-Hill (2005) tests. Meanwhile, they were observed during the teaching process of the same reading comprehension texts. An attempt was made to keep the passages fixed for all due to the fact that the passage features might impact the quality and quantity of questions raised by teachers. Finishing the recordings, teachers were given The California Critical Thinking Skills Test-form B (CCTST-B-34) to answer. Meanwhile, a structured Bloom-Based Question Classification Checklist was operationalized as the primary observational instrument. Derived from the revised edition of Bloom's Taxonomy (Anderson & Krathwohl, 2001), this checklist serves as an objective matrix to map verbal interactions into clear, measurable cognitive tiers. To establish internal temporal stability, the primary researcher re-coded the same subset after a two-week interval. The intra-rater reliability coefficient was calculated using percentage agreement and Cohen's kappa, yielding an exceptional consistency rating (kappa =.89). Finally, non-parametric statistical metrics were used to analyze the data to detect any significant relationship among the variables.

4.5 Data Analysis

To systematically examine the relationship between EFL teachers' critical thinking and the frequency and types of intermediate-level reading comprehension questions, a two-phase data analysis process was executed. Initially, a structural framework was assumed based on established research questions to isolate the relevant variables. Following this, the study focused on quantifying classroom interaction patterns by analyzing the frequency and specific types of questions utilized in the classroom. To achieve this, audio recordings from three instructional sessions for each of the 20 participating teachers were transcribed verbatim. The recorded questions were then rigorously categorized based on Bloom's Taxonomy (See Appendix B) to evaluate their cognitive depth.

Obtained data of the questionnaire have been analyzed by SPSS software. First, descriptive statistical methods—including frequencies, percentages, means, medians, modes, and standard deviations—were computed to outline the foundational features of the statistical population. Second, an inferential analysis was initiated to determine the relationship between the primary variables. Because the normality test results indicated that the dataset followed a non-normal distribution and the data were structured on an ordinal rating scale, non-parametric correlation statistics were deemed necessary.

Because the research took place within a real-world educational ecosystem and involved a relatively small, localized sample, non-parametric statistical metrics were embedded into the design. To address the core research question, which evaluates whether a relationship exists between critical thinking and the types of reading comprehension questions asked in the classroom, both Spearman's rank correlation coefficient and Kendall's tau rank correlation coefficient were employed. Concurrently, the Kendall tau rank correlation coefficient was applied as a symmetric coefficient to evaluate the intensity between the ordinal characteristics. By utilizing the number of agreements in

ranking, the Kendall Tau test provided a robust cross-verification of the direction and strength of the correlation for the research question.

4.6 Ethical Considerations

Some ethical guidelines were maintained throughout the data collection and analysis phases in order to ensure the integrity of the research. Prior to the study, administrative clearance was obtained from the institutional review boards and the leadership of the participating educational complex. Moreover, every participating EFL teacher was provided with a comprehensive disclosure form detailing the study's objectives, the data collection methods (including testing and classroom frequency tracking), and the intended academic use of the final results. Participants were explicitly informed that their involvement was completely voluntary and that they maintained the right to withdraw from the research project at any stage without any professional or academic repercussions. Written informed consent was secured from all participants prior to administrative tracking.

Meanwhile, to protect the identities of the instructors, a strict anonymization protocol was enforced. Raw data sheets, score reports, and question tallies were scrubbed of names and identifying characteristics, replacing them with unique alphanumeric codes.

5 Results

Prior to conducting the inferential analyses to explore the relationship between critical thinking and the types of reading comprehension questions, descriptive statistics were calculated to summarize the descriptive statistics of the data (Table 1).

Table 1

Descriptive Statistics for Critical Thinking Scores and Types of Questions Asked (N = 20)

Variable	Mean	SD	Min	Max
Critical Thinking	74.25	8.65	58.00	88.00
Types of Questions (Student-Generated)	14.20	3.14	9.00	21.00

Initially, the relation between critical thinking and types of questions on reading comprehension has been measured using Kendall s tau-b test and Spearman Coefficient of Correlation. Table 2 provides further insight in details.

Table 2

Results of Kendall's Tau-B Test for Correlation Between Critical Thinking and Types of Questions for Reading Comprehension

Row	Variable	Kendall s tau-b	P-value	Total
1	Critical thinking & Types of questions for reading comprehension	.537	.000	20

Table 2 indicates that based on Kendall s tau-b value (.537) and confidence level of .99 and p-value (< .01), there is significant statistical correlation between the two variables. In addition, the correlation between them is strong.

In Table 3, the correlation between critical thinking and types of questions in regard with reading comprehension has been measured among 20 people of sample.

Table 3

Results of Spearman Test Correlation Between Critical Thinking and Types of Questions for Reading Comprehension

Row	Variable	Spearman	P-value	Total
1	Critical thinking & Types of questions for reading comprehension	.591	.000	20

As it is observed, according to Spearman value (.591) and p-value (p-value < .01), it could be mentioned that the correlation between the mentioned variables is significant in confidence level of .99. There is significant correlation between critical thinking and type of reading comprehension question. In addition, Spearman coefficient of correlation between the two variables indicates that the correlation between them is significant and positive.

Moreover, the relation between critical thinking and number of questions on reading comprehension has been measured using Kendall s tau-b test and Spearman Coefficient of Correlation, as can be observed in Table 4.

Table 4

Results of Kendall s tau-b test for Correlation Between Critical Thinking and Number of Questions for Reading Comprehension

Row	Variable	Kendall s tau-b	P-value	Total
1	Critical thinking & Number of questions for reading comprehension	.249	.000	20

Table 4 indicates that based on Kendall s tau-b value (.249) and confidence level of .99 and p-value (< .01), there is significant statistical correlation between the two variables. In addition, the correlation between them is strong.

In Table 5, the correlation between critical thinking and number of questions in regard with reading comprehension has been measured among 20 people of sample.

Table 5

Results of Spearman Test for Correlation Between Critical Thinking and Number of Questions for Reading Comprehension

Row	Variable	Spearman	P-value	Total
1	Critical thinking & Number of questions for reading comprehension	0.467	.000	20

As it is observed, according to Spearman value (.467) and p-value (p-value < .01), it can be inferred that there is significant correlation between critical thinking and number of reading comprehension questions. In addition, Spearman coefficient of correlation between the two variables indicates that the correlation between them is significant and positive.

Meanwhile, the study investigated if is any significant relationship between gender, education, teaching experience and number of presented questions in the class.

As shown in Table 6, since the level of measurement of number of presented questions in the classroom and measurement level of gender is nominal, chi-square (x2) test has been applied.

Table 6

Results of x2 for Gender and Number of questions in the class

Variables	X2 value	Sig	Total
Gender	111.747	.000	20
Number of questions in the class	128.295	.000	20

According to Table 6, based on confidence level of .95 and p-value > .05, there is a significant difference between the two mentioned variables. Hence, H0 (there is no significant correlation between variables) would be rejected and H1 (there is significant correlation between variables) would be confirmed. In addition, it could be observed that the variable of number of questions would not be different based on gender.

RQ2. Is there any relationship between critical thinking and the types of questions an EFL teacher have students ask in teaching reading? (Based on Bloom Taxonomy)

At this stage, a structured Bloom-Based Question Classification Checklist was operationalized as the primary observational instrument which was derived from the revised edition of Bloom's Taxonomy (Anderson & Krathwohl, 2001). This checklist served as an objective matrix to map verbal interactions into clear, measurable cognitive tiers. To systematically capture and evaluate the cognitive depth of classroom discourse, the instrument broke down student-generated questions across a two-dimensional framework: Lower-Order Thinking Skills (LOTS; including Remembering, Understanding, and Applying) and Higher-Order Thinking Skills (HOTS; including Analyzing, Evaluating, and Creating).

As measurement level of variable of number of questions is interval and measurement level of educational degree is nominal, Spearman test is suitable. In Table 7, the correlation between educational degree and number of presented reading comprehension questions among 20 persons has been measured.

Table 7

Results of Spearman Test for The Correlation Between Educational Degree and Number of Presented Questions in the Class

Row	Variable	Spearman value	P-value	Total
1	Educational degree & Number of presented questions in the class	.418	.000	20

Clearly, according to Spearman value (.418) and p-value (p-value <.01), there is significant correlation between educational degree and number of reading comprehension questions. In addition, Spearman coefficient of correlation between the two variables indicates that the correlation between them is significant and positive (Table 7).

As measurement level of variable of number of questions is interval and measurement level of teaching experience is nominal, Spearman test is applicable. In Table 8, the correlation between

teaching experience and number of presented reading comprehension questions among 20 persons has been measured.

Table 8

Results of Spearman test for the Correlation Between Teaching Experience and Number of Presented Questions in the Class

Row	Variable	Spearman value	P-value	Total
1	Teaching experience & Number of presented questions in the class	.541	.000	20

Clearly, according to Spearman value (.541) and p-value (p-value <.01), there is significant correlation between teaching experience and number of reading comprehension questions (Table 8). In addition, Spearman coefficient of correlation between the two variables indicates that the correlation between them is significant and positive. Moreover, the study investigated whether there is any significant relationship between gender, educational degree, teaching experience and types of presented questions in the class.

As measurement level of variable of number of questions is interval and measurement level of gender is nominal, X2 test is appropriate to be employed. Table 9 outlines the details.

Table 9

Results of X2 for the Relationship Between Gender and Types of Questions in the Class

Variables	X2 value	Sig	Total
Gender	125.457	.000	20
Types of questions in the class	118.578	.000	20

According to Table 9, based on confidence level of.95 and p-value > .05, there is a significant difference between the two mentioned variables. Hence, H0 (there is no significant correlation between variables) would be rejected and H1 (there is significant correlation between variables) would be confirmed. In addition, it could be observed that the variable of number of questions would not be different based on gender.

The relationship between educational degree and types of presented questions in the class was also investigated. As measurement level of variable of types of questions is interval and measurement level of educational degree is nominal, Spearman test can be performed. In Table 10, the correlation between educational degree and types of presented reading comprehension questions among 20 persons has been measured.

Table 10

Results of Spearman Test for the Relationship between Educational Degree and Types of Presented Questions in the Class

Row	Variable	Spearman value	P-value	Total
1	Educational degree & Types of presented questions in the class	.354	.000	20

Clearly, according to Spearman value (.354) and p-value (p-value < .01), it can be concluded that there is significant correlation between educational degree and types of reading comprehension questions. In addition, Spearman coefficient of correlation between the two variables indicates that the correlation between them is significant and positive.

Finally, the relationship between teaching experience and types of presented questions in the classroom was also explored. As measurement level of variable of types of questions is interval and measurement level of teaching experience is nominal, Spearman test is appropriate. In Table 11, the correlation between teaching experience and types of presented reading comprehension questions among 20 persons has been measured.

Table 11

Results of Spearman Test for the Relationship between Teaching Experience and Types of Presented Questions in the Classroom

Row	Variable	Spearman value	P-value	Total
1	Teaching experience & Types of presented questions in the class	.457	.000	20

Clearly, according to Spearman value (.457) and p-value (p-value < .01), there is a significant relationship between critical thinking and the types of questions an EFL teacher have the students ask in teaching reading (Based on Bloom Taxonomy) has been confirmed. Therefore, there is significant correlation between teaching experience and types of reading comprehension questions. In addition, Spearman coefficient of correlation between the two variables indicates that the correlation between them is significant and positive.

6 Discussion

Initially, the findings showed that there was a significant relationship between critical thinking and the number of questions EFL teachers pose in reading classes. The importance of active learner engagement in developing critical thinking is supported by different studies. Sağlam et al.'s (2017) study on expository writing showed its role in enhancing learners' ability to process and evaluate information. This suggests that exposure to such texts may encourage teachers to pose more cognitively demanding questions. However, the current study needed to pay more attention to the role of learner participation, which Romadhoni et al. (2022) and Kamali and Fahim (2011) found to be essential for developing critical thinking through reading. Without active engagement, even frequent questioning may fail to elicit deeper cognitive responses. Thus, the number of questions alone is insufficient; instructional context and learner involvement are critical mediators.

The literature also suggested that in spite of the fact that critical thinking is essential for engaging with argumentative texts, teachers should note that its development among EFL learners can be influenced by multiple factors which are beyond mere exposure to such texts. Tengberg and Olin-Scheller (2016) emphasized that explicit instruction in critical reading is often lacking, which may explain the findings. Without structured pedagogical support, teachers may not consistently raise a high number of questions that stimulate critical engagement. Thus, teachers who value critical thinking may be inclined to ask more questions, and it can be manifested in the number of questions raised in reading classes, which appears to be directly linked to learners' critical thinking levels.

Moreover, the findings of the study showed that there was a significant relationship between critical thinking and the types of questions. The use of higher-order questioning strategies supporting Bloom's Taxonomy is strongly supported in the reviewed literature. Anderson and Soden (2001) argued that distinguishing between opinion and evidence is a foundational critical thinking skill, directly linked to Bloom's "analyze" and "evaluate" levels. Fuad et al. (2017) and Nguyen et al.

(2023) further emphasized that organizing and assessing argumentative content cultivates learners' ability to draw reasoned conclusions.

These findings suggest that teachers who employ evaluative and inferential questions—rather than merely factual or recall-based ones—are more likely to foster critical thinking. Ardhian et al. (2020) also found that reading argumentative texts can enhance students' critical thinking skills such as inference-making, synthesis, and conclusion-drawing. These skills can reinforce the value of Bloom-aligned questioning in reading instruction.

Prayogi et al. (2022) and Zubaidah et al. (2018) emphasized that integrated reading and writing activities and reading interest can foster critical thinking, which aligns with Bloom's upper levels—analyzing, evaluating, and creating.

Egurrola and García (2023) and Seban (2022) highlighted the importance of teaching learners to understand the structure, purpose, and language of argumentative and expository genres, which enables them to analyze and evaluate texts more effectively. This aligns with Bloom's taxonomy levels such as analyzing, evaluating, and creating, suggesting that teachers who incorporate genre-based instruction are more likely to pose cognitively demanding questions. Wang (2023) further emphasized that instruction in argumentative writing encourages learners to assess diverse viewpoints, reinforcing the value of evaluative questioning in reading classes.

Teacher experience and educational background may also shape pedagogical choices, including questioning behavior. For example, Icen (2020) emphasized the importance of teacher training in fostering critical thinking through questioning and argumentation, implying that more experienced or better-trained teachers may ask more questions. Lin and Arumugam (2024) and Yasuda (2017) demonstrated that argumentative writing tasks require structured guidance, which may be more effectively delivered by experienced or well-trained teachers.

The literature points to a nuanced relationship between teacher-related variables and the cognitive complexity of questions posed. Ramadhani et al. (2023) and Terasne et al. (2022) identified cognitive and psychological factors as influential in shaping learners' reading comprehension and critical thinking—variables that may also affect teachers' questioning strategies. Moreover, the ability to guide learners through systematic reasoning, as highlighted by Sağlam et al. (2017), likely depends on teachers' familiarity with genre conventions and critical literacy pedagogy. Thus, instructional expertise—not demographic traits alone—appears to determine the quality of questions raised.

Teachers with greater exposure to critical thinking pedagogy—likely those with advanced degrees or more teaching experience—may be better equipped to design and deliver Bloom-aligned questions that promote deeper engagement. For instance, Aghajani and Gholamrezapour (2019) underscore the importance of critical thinking in reading, suggesting that teachers who understand its role may be more intentional in crafting analytical and evaluative questions.

Instructional strategies also play a pivotal role. Orakcı et al. (2019) advocated for the use of authentic texts and critical literacy approaches, which encourage learners to question and reflect on content, thereby enhancing critical engagement. Technological integration, as demonstrated by Wijaya and Roki'Ah (2020), further supports this view; their use of YouTube in argumentative writing instruction showed that digital tools can effectively scaffold critical thinking, provided that instructional design is well-aligned. Iswati and Purwati (2022) and Rahmah et al. (2019) similarly

found that guided discovery and innovative learning applications foster deeper understanding and improve argumentative writing skills.

This study indicated that teachers do benefit from higher level of questions, according to Bloom's taxonomy. On the other hand, high levels of questions such as, applying, analyzing, evaluating, and creating caused classroom interaction. As the study showed types of the questions does have positive outcomes; asking good questions is a good method in ESL/EFL reading classes because it develops team work, provides a socially rich situation where the students can learn effectively (Amirpoor, 2012; Lin & Arumugam, 2024; Shen & Yodolkhumule, 2012). Furthermore, these results extend the focus of recent research on questioning dynamics. In line with Zhou's (2024) findings, teachers with advanced cognitive skills create richer classroom engagement. However, contrary to Zhou's (2024) study which focused heavily on teacher-led inquiries, the present study effectively demonstrated that a teacher's critical disposition does not simply result in more lecturing or teacher-fronted questioning; rather, it acts as a factor that empowers students to generate their own diverse reading comprehension inquiries. This shift from passive reception to active production lends statistical weight to Truong's (2024) qualitative observations. While Truong used Bloom's Taxonomy to describe how teacher prompts promote engagement, our correlation metrics confirm that higher teacher cognition is mathematically tied to an increased frequency and variation of analytical tasks in practice. To learn well, one must learn well; reading texts that contain important ideas and ground thinking in powerful ideas. Overall, the findings provided empirical and qualitative support for this relation.

7 Conclusion and Implications

Overall, the study ended in two main findings. It was revealed a significant, positive relationship between EFL teachers' critical thinking levels and both the overall frequency and the specific cognitive types of reading comprehension questions deployed in the classroom. This indicates that while higher teacher cognition directly correlates with a greater use of Bloom-based higher-order questioning strategies, the actual development of student critical thinking depends on combining these advanced prompts with active learner involvement and explicit instructional support.

It can be said that critical thinking helped teachers change into better EFL teachers. Considering the mentioned issues, it can be stated that critical theory in four recent decades have followed the cultural and pedagogical discussion and is considered as the main important attitudes in twenty century that had many effects on different fields such as analysis and criticism on culture and its position in organized society, the process of personal development and revision in principles and Marxism trainings. The training of the learners is not achieved only by transforming information to the mind of students, but also it requires entering in curriculum of schools and universities.

Considering the main role of training environment and dominant methods on them, they should be organized so that the student can confront the real life's issue instead storing the science fact with involved issues; in addition, thinkers of critical pedagogy have created the training idioms and theories by representing the analysis about the institutes and training situations. However, it can be stated that although there are many basic criticisms into the critical pedagogy attitudes, there are some positive attitudes that considering toward them can be useful. The use of authentic texts, along with adopting Bloom's Taxonomy not merely as a theoretical model but as a practical guide for curriculum

design, and digital tools further amplifies learners' ability to reflect, question, and construct meaning—skills that are essential for navigating both academic and real-world discourse.

It is important to acknowledged several limitations for conducting future studies. First, the small sample size (N = 20) limits the generalizability of the findings to a broader population of EFL instructors or diverse institutional contexts. Moreover, the study relied primarily on quantitative, non-parametric correlation measures, which fails to capture the qualitative nuances of classroom interaction.

Among the practical implications for EFL stakeholders, particularly curriculum designers and teacher education programs, it should be suggested that explicit training in critical thinking pedagogy can directly enhance classroom interaction and reading comprehension depth. Therefore, future research should build upon these insights and employ more interactive designs (e.g., longitudinal mixed-methods designs and combine observation data and qualitative interviews) to explore how critical thinking manifests in daily lesson planning. Additionally, subsequent studies should consider institutional resources or cultural repertoire of the participants to scrutinize the relationship more deeply.

Acknowledgment

We are grateful to the authors of the research articles and textbooks used in this study.

Authors' Contributions

All authors have conducted the study, collected data, analyzed and interpreted the data, and written up the manuscript.

Funding

The study did not receive any funding.

Competing Interests

The authors declare that there is no conflict of interest.

References

Aghajani, M., & Gholamrezapour, E. (2019). Critical thinking skills, critical reading and foreign language reading anxiety in Iran context. *International Journal of Instruction, 12*(4), 219–238. https://doi.org/10.29333/iji.2019.12414a

AlperAy, F., Karakaya, A., & Yilmaz, K. (2015). Relations between self-leadership and critical thinking skills. *Procedia-social and Behavioral sciences, 207*, 29–41.

Amirpoor, B. (2012). Relationship between critical thinking and its dimensions with happiness and social self-esteem of students. *Educational Strategies in Medical Sciences, 5*(3), 143–147.

Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.

Anderson, T., & Soden, R. (2001). Peer interaction and the learning of critical thinking skills. *Psychology Learning & Teaching, 1*(1), 37–40. https://doi.org/10.2304/plat.2001.1.1.37

Ardhian, T., Ummah, I., Anafiah, S., & Rachmadtullah, R. (2020). Reading and critical thinking techniques on understanding reading skills for early grade students in elementary school. *International Journal of Instruction, 13*(2), 107–118. https://doi.org/10.29333/iji.2020.1328a

Asgharheidari, F., & Tahriri, A. (2015). A survey of EFL teachers' attitudes towards critical thinking instruction. *Journal of Language Teaching and Research, 6*(2), 388. https://doi.org/10.17507/jltr.0602.20

Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. David McKay Company.

Brahim, Y. (2021). Developing critical thinking skills in Omani EFL foundation programme: constraints and possibilities. *Ijohmn (International Journal Online of Humanities), 7*(1), 1–30. https://doi.org/10.24113/ijohmn.v7i1.217

Çakıcı, D. (2018). Metacognitive awareness and critical thinking abilities of pre-service EFL teachers. *Journal of Education and Learning, 7*(5), 116. https://doi.org/10.5539/jel.v7n5p116

Costa, AL. & Kallick, B. (2009). *Habits of mind across the curriculum*. Practical and creative strategies for teachers. Alexandria, VA: Association for Supervision and Curriculum Development.

Davoudi, M., & Sadeghi, N. A. (2015). A systematic review of research on questioning as a high-level cognitive strategy. *English Language Teaching, 8*(10). https://doi.org/10.5539/elt.v8n10p76

Egurrola, J., & García, I. (2023). Exploring the effects of implementing Hilary Janks' critical literacy model in a university EFL classroom. *Lenguaje, 51*(1), 29–63. https://doi.org/10.25100/lenguaje.v51i1.12092

Facione, P. A., Facione, N. C., Tiwari, A., & Yuen, F. (2009). Chinese and American perspectives on the pervasive human phenomenon of critical thinking. *Journal of Peking University (Philosophy and Social and Sciences), 46*(1), pp. 55–62.

Fahim, M., & Ahmadi, H. (2012). Critical thinking, content schemata and EFL readers' comprehension and recall. *Journal of comparative literature and culture*.

Fahim, M., & Mirzaii, M. (2013). Improving EFL argumentative writing: a dialogic critical thinking approach. *International Journal of Research Studies in Language Learning, 2*(3). https://doi.org/10.5861/ijrsll.2013.313

Fahim, M., & Sa'eepour, M. (2011). The impact of teaching critical thinking skills on reading comprehension of Iranian EFL learners. *Journal of Language Teaching and Research, 2*(4),867–874.

Fathi, J., Greenier, V., & Derakhshan, A. (2021). Self-efficacy, reflection, and burnout among Iranian EFL teachers: The mediating role of emotion regulation. *Iranian Journal of Language Teaching Research*, *9*(2), 13–37. https://doi.org/10.30466/ijltr.2021.121043

Fu, J. (2023). How does self-efficacy, learner personality, and learner anxiety affect critical thinking of students? *Frontiers in Psychology, 14*. https://doi.org/10.3389/fpsyg.2023.1289594

Fuad, N., Zubaidah, S., Mahanal, S., & Suarsini, E. (2017). Improving junior high schools' critical thinking skills based on test three different models of learning. *International Journal of Instruction*, *10*(01), 101–116. https://doi.org/10.12973/iji.2017.1017a

Hashamdar, M., & Maleki, M. (2018). The effects of the instruction of self-regulation strategies and critical thinking strategies on the second language vocabulary achievement among Iranian EFL learners. *International Journal of Applied Linguistics & English Literature, 7*(7), 148. https://doi.org/10.7575/aiac.ijalel.v.7n.7p.148

Huang, Q. (2023). A study on the impact of critical thinking skills and foreign language enjoyment on foreign language performance. *International Journal of Academic Research in Progressive Education and Development, 12*(3). https://doi.org/10.6007/ijarped/v12-i3/18077

Icen, M. (2020). Developing media literacy through activities. International Journal of *Educational Methodology*, *6*(3), 631–642.

Iman, J., & Angraini, N. (2019). Discussion task model in EFL classroom: EFL learners' perception, oral proficiency, and critical thinking achievements. *Pedagogika, 133*(1), 43–62. https://doi.org/10.15823/p.2019.133.3

Iswati, H., & Purwati, O. (2022). Improving students' critical thinking through guided discovery learning method in argumentative texts reading. *Els Journal on Interdisciplinary Studies in Humanities, 5*(4), 701–705. https://doi.org/10.34050/elsjish.v5i4.24826

Kamali, Z., & Fahim, M. (2011). The relationship between critical thinking ability of Iranian EFL learners and their resilience level facing unfamiliar vocabulary items in reading. *Journal of Language Teaching and Research, 2*(1). https://doi.org/10.4304/jltr.2.1.104-111

Khodadady, E., & Ghanizadeh, A. (2011). The impact of concept mapping on EFL learners' critical thinking ability. *English Language Teaching, 4*(4). https://doi.org/10.5539/elt.v4n4p49

Lin, L., & Arumugam, N. (2024). Effect of group writing using genre-based approach on EFL learners' competence in writing argumentative essays. *Higher Education and Oriental Studies, 4*(1). https://doi.org/10.54435/heos.v4i1.112

Liu, S. (2019). Using science fiction films to advance critical literacies for EFL students in China. *International Journal of Education and Literacy Studies*, *7*(3), 1. https://doi.org/10.7575/aiac.ijels.v.7n.3p.1

Liu, Y., & Yan, C. (2022). Deepening academic engagement through critical thinking in reading instruction. *Journal of English Language Teaching and Research*, *14*(2), 112–125.

Marni, S., Roekhan, Harsiati, T. (2019). Critical thinking patterns of first-year students in argumentative essay. *Journal for the Education of Gifted Young Scientists*, *7*(3), 683–697.

Mehrabi, M., Alipoor, A., Saeedi, N. (2011). Studyingcritical thinking of student at Shiraz pay am Noor University. *Journal of Education and Practice, 1*.

McGraw-Hill. (2005). *McGraw-Hill's MAT: Miller Analogies Test*. McGraw-Hill.

Nejad, M., Izadpanah, S., Namaziandost, E., & Rahbar, B. (2022). The mediating role of critical thinking abilities in the relationship between English as a foreign language learners' writing performance and their language learning strategies. *Frontiers in Psychology, 13.* https://doi.org/10.3389/fpsyg.2022.746445

Nejad, M., Raftari, S., & Eng, L. (2016). Exploring the effectiveness of critical thinking on vocabulary learning by Malaysian EFL learners. *Journal of Studies in Education, 6*(2), 213. https://doi.org/10.5296/jse.v6i2.9520

Nguyen, C., Hue, A., Kim, A., & Hong, H. (2023). Factors influencing the teaching of critical thinking to primary school students by primary school teachers in the mountainous region of northern Vietnam. *International Journal of Social Science and Human Research, 06*(04). https://doi.org/10.47191/ijsshr/v6-i4-37

Omar, A., & Mohamed, H. (2024). Advanced cognitive dimensions in critical reading: Multi-perspective analysis in EFL contexts. *International Journal of Instruction, 17*(1), 45–62.

Orakcı, Ş., Durnali, M., & Aktan, O. (2021). Fostering critical thinking using instructional strategies in English classes. In *Research Anthology on Developing Critical Thinking Skills in Students* (pp. 79–96). IGI Global.

Ozkan, I. (2010). *Telling ELT tales out of school a path to critical thinking.* Procedia Social Behavior Science. 3, 210–2.

Paul, R., & Elder, L. (1999). Critical thinking: Teaching students to seek the logic of things, part ii. *Journal of developmental education, 23*(2), 34.

Paul, R., & Elder, L. (2006). *Critical thinking: Tools for taking charge of your professional and personal life*. Pearson Education.

Prayogi, A., Mulyati, Y., Sastromiharjo, A., & Damaianti, V. (2022). Effectiveness of integration of teaching reading and writing skills based on critical thinking skills in improving argumentation essay writing ability. *Cypriot Journal of Educational Sciences, 17*(12), 4759–4775. https://doi.org/10.18844/cjes.v17i12.8227

Rahmah, N., Munir, A., & Anam, S. (2019). Rationale as an innovative learning application to improve students' critical thinking in argumentative writing. *International Journal for Educational and Vocational Studies, 1*(7). https://doi.org/10.29103/ijevs.v1i7.1745

Ramadhani, N., Salija, K., & Baa, S. (2023). The correlation between students' critical thinking skills and their reading comprehension at undergarduate study program English department faculty of languages and literature universitas negeri makassar. *Klasikal Journal of Education Language Teaching and Science, 5*(1), 25–36. https://doi.org/10.52208/klasikal.v5i1.612

Romadhoni, M., Andania, R., & Yen, A. (2022). Students' critical thinking on argumentative essay writing through cooperative learning. *Education and Human Development Journal, 7*(2), 1–12. https://doi.org/10.33086/ehdj.v7i2.2941

Sağlam, A., Çankaya, İ., Ucer, H., & Cetin, M. (2017). The effect of information literacy on teachers' critical thinking disposition. *Journal of Education and Learning, 6*(3), 31. https://doi.org/10.5539/jel.v6n3p31

Seban, D. (2022). The effect of genre-specific strategy instruction on the writing achievement of fourth-grade students. *Education Quarterly Reviews, 5*(4). https://doi.org/10.31014/aior.1993.05.04.612

Shen, P., &Yodkhumlue, B. (2012). Teacher's questioning and students' critical thinking in college EFL reading classroom. The 8th International Postgraduate Research Colloquium: *Interdisciplinary Approach for Enhancing Quality of LifeIPRC Proceedings.*

Singh, R., & Shaari, A. (2019). The analysis of higher-order thinking skills in English reading comprehension tests in Malaysia. *Malaysian Journal of Society and Space, 15*(01). https://doi.org/10.17576/geo-2019-1501-02

Solhi, M. (2024). The impact of EFL learners' negative emotional orientations on (un)willingness to communicate in in-person and online L2 learning contexts. *Journal of Psycholinguistic Research, 53*(2), Article 26. https://doi.org/10.1007/s10936-024-10071-y

Stapleton, P. (2011). A survey of attitudes towards critical thinking among Hong Kong secondary school teachers: Implications for policy change. *Think Skills and Creativity*, *6*(1), 14–23.

Tan, A. J., Davies, J. L., Nicolson, R. I., & Karaminis, T. (2023). Learning critical thinking skills online: can precision teaching help? *Educational technology research and development*. 1–22.

Tengberg, M., & Olin-Scheller, C. (2016). Developing critical reading of argumentative text: Effects of a comprehension strategy intervention. *Journal of language teaching and research*, *7*(4), 635–648.

Terasne, T., Hanan, A., & Utama, I. (2022). Investigating factors influencing EFL students' critical thinking skill and reading accidents in reading classroom. *Jurnal Ilmiah Mandala Education, 8*(4). https://doi.org/10.58258/jime.v8i4.4014

Truong, H. C. (2024). Students' perspectives on the use of teacher questions to promote critical thinking in EFL classrooms. *International Journal of Language Instruction*, *3*(2), 1–15.

Wafa, A., & Khalaf, M. (2021). The effectiveness of visual mind mapping strategy for improving English language learners' critical thinking skills and reading ability. *European Journal of Educational Research, 11*(1), 141–150. https://doi.org/10.12973/eu-jer.11.1.141

Warliati, A., Rafli, Z., & Darmahusni, D. (2019). Discussion and think-pair-share strategies on the enhancement of EFL students' speaking skill: does critical thinking matter?. *Journal of English Language Studies*, *4*(2), 120. https://doi.org/10.30870/jels.v4i2.6100

Wang, Y. (2023). Task-based explanation for genre effects: Evidence from a dependency treebank. *Plos One*, *18*(8), e0290381. https://doi.org/10.1371/journal.pone.0290381

Wijaya, A., & Roki'ah, S. (2020). Critical thinking skill toward YouTube resources in students' argumentative text. *Englisia Journal of Language Education and Humanities*, *8*(1), 1. https://doi.org/10.22373/ej.v8i1.6622

Xu, J. (2011). The Application of critical thinking in teaching English reading. *Theory and Practice in Language Studies*, 1(2), 136–141.

Yasuda, S. (2017). Toward a framework for linking linguistic knowledge and writing expertise: interplay between self-based genre pedagogy and task-based language teaching. *TESOL Quarterly*, *51*(3), 576–606. https://doi.org/10.1002/tesq.383

Zhou, W. (2024). Effective teacher questioning perceived by EFL learners in Chinese universities and its relationship with classroom engagement. *Frontiers in Educational Research*, *7*(9), 187–198.

Živković, S. (2016). *Proc. Int. Conf. on Teaching and Learning English as an Additional Language (Antalya)*, *232*, 102–108. Amsterdam: Elsevier. http://doi.org/10.1016/j.sbspro.2016.10.034 102-108.

Zubaidah, S., Corebima, A., Mahanal, S., & Mistianah, M. (2018). Revealing the relationship between reading interest and critical thinking skills through remap GI and remap jigsaw. *International Journal of Instruction*, *11*(2), 41–56. https://doi.org/10.12973/iji.2018.1124a