



Practicing Critical Thinking Skills by Secondary Stage Teachers¹ in Teaching English Language

Malak M. Humaid¹ & Mohammad Hamzeh^{1,*}

(Type: Full Article). Received: 4th Nov. 2024, Accepted: 4th May. 2025, Published: 1st Dec. 2025,

DOI: <https://doi.org/10.35552/0247.39.12.2508>

Abstract: Purpose: This study aims to examine the extent to which secondary school teachers incorporate critical thinking skills into their English language teaching practices. **Methodology:** A quantitative methodology with a descriptive approach was employed, utilizing a (34) item questionnaire categorized into five key domains: Interpretation, Reasoning, Discrimination, Evaluation, and Comparison. The sample consisted of (247) randomly selected male and female secondary school teachers from Amman. **Results and conclusion:** The findings revealed that teachers generally practice critical thinking skills at a high level across all domains. No statistically significant differences were observed based on gender or years of experience. However, significant differences were found in deductive reasoning among female teachers and in the overall practice of critical thinking skills based on academic qualifications. The study concludes that critical thinking is being incorporated at a high level by teachers in Jordanian secondary schools, but there are differences based on gender and academic qualifications. **Recommendations** To enhance the integration of critical thinking into English language teaching, the study recommends further training programs and professional development workshops tailored to equip teachers with effective strategies.

Keywords: Critical Thinking Skills, English language, Classroom Practices, Teacher Training, Quantitative Research.

ممارسة مهارات التفكير النقدي من قبل معلمي المرحلة الثانوية في تدريس اللغة الإنجليزية

ملاك محمد حميد¹، ومحمد حمزة^{1,*}

تاريخ التسليم: (2024/11/4)، تاريخ القبول: (2025/5/4)، تاريخ النشر: (2025/12/1)

الملخص: الهدف: تهدف هذه الدراسة إلى استكشاف مدى ممارسة معلمي المرحلة الثانوية لمهارات التفكير النقدي في تدريس اللغة الإنجليزية، وذلك في ضوء التوجه العالمي المتزايد نحو تنمية مهارات التفكير العليا، ويهدف سد فجوة قائمة في الأدبيات المتعلقة بواقع هذه المهارات في السياق الأردني. **المنهجية:** اعتمدت الدراسة على منهجية كمية ذات طابع وصفي، من خلال تطبيق استبيان مكون من (34) فقرة موزعة على خمس مجالات رئيسية: التفسير، والاستدلال، والتمييز، والتقييم، والمقارنة. شملت العينة (247) معلماً ومعلمة من مدارس المرحلة الثانوية في مدينة عمان تم اختيارهم بطريقة عشوائية. **النتائج والاستنتاجات:** أظهرت النتائج أن معلمي المرحلة الثانوية يمارسون مهارات التفكير النقدي بدرجة مرتفعة في جميع المجالات الخمسة. كما لم تظهر فروق ذات دلالة إحصائية تُعزى إلى الجنس أو سنوات الخبرة. في المقابل، تبيّنت فروق ذات دلالة إحصائية في مجال الاستدلال والاستنتاجي لصالح المعلمات، وفي مستوى ممارسة المهارات ككل تبعاً للمؤهل الأكاديمي. **التوصيات:** توصي الدراسة بعقد برامج تدريبية وورش عمل تطوير مهني مستمرة تهدف إلى تمكين المعلمين من أدوات واستراتيجيات فاعلة لتعزيز دمج مهارات التفكير النقدي في تدريس اللغة الإنجليزية. **الكلمات المفتاحية:** مهارات التفكير النقدي، اللغة الإنجليزية، ممارسات الصف، تدريب المعلمين، البحث الكمي.

1 Administration and Curriculum Department, College of Educational Sciences, Middle East University, Amman, Jordan, malak.humaid@hotmail.com

Orcid: <https://orcid.org/0009-0008-0570-2286>,

* Corresponding author: mhamzeh@meu.edu.jo

Orcid: <https://orcid.org/0000-0002-1021-2336>

1 قسم الإدارة والمناهج، كلية الآداب والعلوم التربوية، جامعة الشرق الأوسط، عمان،

الأردن. malak.humaid@hotmail.com

*الباحث المراسل: mhamzeh@meu.edu.jo

Introduction

The world today is witnessing rapid advancements across various fields, particularly in the domain of knowledge. Scientific progress has become a key indicator of a nation's development and the sophistication of its society, regardless of time or place. In response, there is an increasing need for a non-traditional educational system that leverages the power of technology to prepare a generation capable of confronting challenges, accessing diverse sources of knowledge, and critically evaluating the information they encounter (Abo-Alkail & Abu Mathana 2018).

Thinking is one of the most essential skills in education and learning. It extends beyond classroom instruction, serving not as an end in itself but as a tool for developing higher-order thinking skills. These skills equip learners to navigate challenges, solve problems, take initiative, and make informed decisions (Wei & Li, 2024; Al-Turki & Al-Nashwan, 2021).

Critical thinking is a vital and complex cognitive skill that enables students to analyze and evaluate information before reaching well-reasoned conclusions. Its importance is evident in its role as an essential educational requirement, equipping individuals to assess ideas, propose solutions, and apply logical reasoning to ensure accuracy and validity. This ability allows them to critically engage in discussions, draw sound conclusions, and adapt to scientific advancements across various fields (Jamil et al., 2024; Al-Darsi, 2022).

The learner engages in various practical cognitive situations that require reflective thinking. Through this process, their interaction with these situations evolves in accordance with their experiences and cognitive needs, which they strive to fulfill. This intellectual engagement enhances their cognitive performance and leads to the development of

new meanings and assumptions (Al-Asasleh & Bsharah 2012).

In 2024, a study conducted by Al-Sharari at the University of Amman examined the impact of using the Pentagon strategy in teaching English on improving critical thinking skills among seventh-grade female students in Jordan. The results demonstrated a notable improvement in the students' critical thinking abilities after the strategy was implemented, further supporting the importance of innovative teaching methods in fostering cognitive development.

Practicing critical thinking strengthens students' problem-solving abilities and helps them make informed decisions in their lives. It is not an innate skill but rather one that develops through consistent training and practice. Moreover, critical thinking is not confined to a specific age or stage—anyone can cultivate it to enhance their reasoning and decision-making. Its impact is significant, equipping individuals with the ability to navigate challenges effectively (Al-Syouf, 2022; Al-Mulhim, 2023).

According to prior research, critical thinking encompasses five key competencies: interpretation, inference, discrimination, evaluation, and comparison. Interpretation skills are essential for teachers as they explain English concepts and terminology. Inference enables students to analyze data and draw conclusions by transitioning between parts and wholes. Discrimination helps students identify similarities and differences, such as between two grammar rules. Evaluation allows students to assess strengths and weaknesses and articulate their perspectives on instruction. Finally, comparison enables students to distinguish between accurate and inaccurate information (Al-Otaibi, 2022; Al-Syouf, 2022; Facione, 2015).

To foster critical thinking, teachers must act as organizers, guides, and facilitators, creating

an environment that encourages open discussion and dialogue. They should emphasize that critical thinking does not always yield a single correct answer but may lead to further questions or diverse perspectives. Additionally, instructors play a crucial role in helping students refine their critical thinking skills and develop sound, well-reasoned judgments (Ahmad, 2020).

Although critical thinking is essential for all educators, it is especially crucial for language teachers due to the vast scope of language resources and their significant role in education. Therefore, developing programs and workshops is vital not only to enhance their linguistic expertise but also to equip them with effective strategies for teaching and applying language skills (Al-Jaafra, 2020). English is one of the most important languages for global communication. It serves as the language of technology and scientific development and is the official language of major international forums and organizations, including the United Nations, the Organization of Petroleum Exporting Countries, and the Organization for Economic Cooperation and Development. With advancements across various industries, the demand for English proficiency has increased (Darwin et al., 2024; Alharbi, 2017).

Study Problem

This study addresses the recommendations of previous research, including those by Al-Ghannami & Al-Abdulkarim (2024), Jamil et al. (2024), Al-Darsi (2022), Al-Asfar (2015), and Zaida & Sofwan (2015), which identified a lack of critical thinking skills among instructors. A review of Al-Nabhani's study (2010) found that implementing critical thinking strategies in teaching helps eliminate traditional methods. Teachers play a central role in shaping future generations by equipping students with the knowledge and skills necessary to enhance their academic and professional growth (Al-Anazi, 2011).

The Ministry of Education in Jordan has highlighted several challenges in improving education at both the basic and secondary levels. Among the three major obstacles to secondary school development, the most critical is the urgent need to transition from superficial learning to deeper specialization and critical, creative thinking, particularly in the context of the Fourth Industrial Revolution. The Ministry noted that many secondary students struggle to think outside the box, lacking the ability to articulate their thoughts and engage in meaningful critical thinking to address real-world challenges (Ministry of Education, 2023).

Researchers also found that most teachers rely on traditional teaching methods and do not incorporate critical thinking skills such as deduction, discrimination, and evaluation. These skills are essential for helping students think creatively, analyze information effectively, and make well-reasoned decisions.

The current study aims to assess the extent to which secondary school teachers apply critical thinking skills in their English language teaching. By examining variables such as gender, years of experience, and academic qualifications, the study seeks to offer a deeper understanding of how critical thinking is both practiced and perceived in the classroom. These variables are important because they help capture differences that may influence how teachers engage with critical thinking in their teaching. Gender may reveal any variations in teaching approaches between male and female teachers, while years of experience could indicate whether more experienced teachers use critical thinking skills differently. Academic qualification, on the other hand, helps explore whether formal education influences the use of these skills in teaching.

The study attempts to answer the following questions:

1. What is the degree to which secondary school teachers practice critical thinking skills when teaching the English language, from their point of view?
2. Are there statistically significant differences (at $\alpha = 0.05$) in the practice of critical thinking skills in teaching English, from the secondary school teachers' point of view, based on the variables: gender, years of experience, and academic qualification?

Study Significant

The current study aims to shed light on the important topic of the extent to which secondary school English teachers practice critical thinking skills. It also contributes to enriching the existing literature on the subject and paves the way for further research on how English language teachers integrate critical thinking into their teaching. The study provides valuable insights for researchers on the widespread practice of critical thinking among teachers, potentially inspiring English language curriculum developers to prioritize these skills and improve the effectiveness of teaching.

This study can serve as a tool for English language teachers to assess their own use of critical thinking skills in the classroom. It is also beneficial for those responsible for teacher training, as it emphasizes the need to incorporate critical thinking into teacher education programs. Curriculum planners can use the findings to integrate critical thinking skills into school curricula and design teacher training courses that promote educational development.

Literature Review

Jamil, Anwar, and Ali (2024) conducted a quantitative, descriptive research study investigating English teachers' perspectives on critical thinking at the secondary level. A sample of 100 participants (50 males, 50 females) was selected through random sampling in Pakistan. Data was collected using a self-developed, 5-point Likert scale questionnaire. The results

indicated that the majority of respondents (92.4%) had knowledge of critical thinking, viewed it as important for teaching English (92%), and considered it crucial for 21st-century learning (91%). Most teachers (90%) reported using various techniques, particularly questioning (95%), to develop students' critical thinking skills. However, only 14% believed students were good at critical thinking, while 44.7% disagreed, highlighting a perceived gap between teachers' efforts and students' abilities.

Dung's (2024) study aimed to investigate the effects of critical thinking skills on speaking ability among non-English major students. The study was conducted at Dai Nam University with 74 students from three disciplines: linguistics, healthcare, and technology. The research design combined both survey and experimental methods. The findings revealed that critical thinking skill levels varied across disciplines. Linguistics students exhibited the lowest levels, categorized as "Basic Critical Thinkers," while healthcare students ranked the highest. Technology students were classified as "Emerging Critical Thinkers." The aspects of clarity of communication and problem-solving skills were the most influential in developing speaking ability. The critical thinking training course was found to be beneficial for enhancing students' speaking skills.

Ismail, Muhammad, Shanmugam, and Rajoo (2022) conducted a study to determine the extent to which mathematics teachers in Malaysian secondary schools use critical thinking. A descriptive survey method was employed, and data was collected through a questionnaire. The study sample consisted of 226 mathematics teachers from three different categories of secondary schools. The findings indicated that the practice of critical thinking enhanced the quality of instruction and addressed the learning needs of the twenty-first century in the classroom.

Al-Majali (2022) conducted a study in Jordan to assess the extent to which basic stage teachers foster critical thinking, as well as the patterns and methodologies they employ, based on their own perceptions. A questionnaire was used to collect data across three categories: critical thinking skills, critical thinking trends, and methods for improving critical thinking. The survey was administered to a group of 300 male and female teachers.

According to the study, basic stage teachers practice critical thinking skills to a significant extent. It also found no statistically significant differences across the three domains of the gender variable, except for the first domain, where females were favored. Additionally, the study confirmed that there were no statistically significant differences related to the experience variable.

Al-Khalidi (2021) conducted a study to assess the extent to which Islamic education teachers in the Kingdom of Saudi Arabia practice critical thinking skills, as perceived by the teachers themselves. A questionnaire was distributed to 617 male and female teachers. The results showed that the teachers' practice of critical thinking skills was rated as average. Statistically significant differences were found for the educational stage variable, with higher stages showing more engagement in critical thinking than lower stages. Additionally, there were significant differences based on academic qualifications, with postgraduate-qualified teachers demonstrating a higher degree of critical thinking than those with a bachelor's degree. The study also indicated significant differences related to teaching experience, with more experienced teachers practicing critical thinking at a higher level than their less experienced counterparts. However, no statistically significant differences were found based on gender.

Al-Jaafrah (2020) conducted a study in the

United Arab Emirates to evaluate the extent to which student teachers specializing in Arabic language are aware of critical thinking skills and how much they practice them in teaching Arabic, from their perspective. The study sample included 104 students from Al Ain University's Educational Preparation Diploma program. A questionnaire with 30 competencies was developed by the researcher. The results revealed that the student teachers had high levels of knowledge and practice of critical thinking skills. Furthermore, there was a strong correlation between their knowledge of critical thinking and their application in teaching Arabic. The study also found no statistically significant differences in the student teachers' estimates of their knowledge and practice of critical thinking skills based on gender or cumulative GPA.

Al-Humairi (2019) conducted a study in Tabuk, which aimed to identify the degree to which science practices critical thinking skills and its relationship to the scientific thinking skills and achievement of their students in the science course in the middle school. The study population consisted of all science teachers, students, and (43) students in the basic stage. To achieve the objectives of the study, a critical thinking questionnaire for science teachers and a scientific thinking questionnaire for middle school students in the city of Tabuk were applied. The results of the study showed that the level of critical thinking of science teachers was average and weak among students. There is a direct correlation between teachers' critical thinking, scientific thinking, and their teachers' academic achievement.

Al-Fraihat (2018) conducted a study to assess the extent to which government basic school teachers in Ajloun Governorate practice critical thinking skills from their own perspectives. To achieve this, a descriptive analytical survey method was employed. The study sample included 183 male and female teachers. The

findings revealed statistically significant differences in the opinions of the participants regarding the degree to which teachers practice critical thinking skills, with females expressing higher levels of practice. However, no statistically significant differences were found regarding the practice of critical thinking skills based on academic qualification or years of experience.

Hamdan, Sari, and Muhammad (2016) investigated the extent to which teachers in Lebanon's first stage of basic education use critical thinking skills. The study employed a descriptive method, utilizing a questionnaire on critical thinking skills with 29 components. It was distributed to a sample of 53 male and female teachers. The findings revealed no significant differences in the use of critical thinking skills between male and female teachers. Additionally, the data indicated that teachers' overall practice of critical thinking skills did not significantly change based on their years of experience.

Comments on Previous Studies

Most previous studies used a descriptive methodology, including those conducted by Jamil, Anwar, and Ali (2024), Dung (2024), Hamdan, Sari, and Muhammad (2016), Al-Fraihat (2018), Al-Hararsheh (2018), Al-Humairi (2019), Al-Jaafra (2020), Ahmad (2020), Al-Khalidi (2021), Ismail, Muhammad, Shanmugam, and Rajoo (2022), and Youssef & Dima (2022). This methodological approach is consistent with current research.

In terms of where the study was conducted: the current study was similar to the studies of (Al-Fraihat, 2018; Hararsheh, 2018; Ahmad, 2020; Al-Jaafra, 2020). It differed from other studies, as the study of (Ismail, Muhammad) Shanmugam & Rajoo, 2022) was conducted in Malaysia, Al-Khalidi, 2021, the study (Hamdan, Sari, and Muhammad, 2016) was conducted in Tartous, and the study (Al-Fraihat, 2018) was

conducted in the Kingdom of Saudi Arabia.

In terms of study sample, earlier studies covered a broader population. For example, the study by Ismail, Muhammad, Shanmugam, and Rajoo (2022) focused on secondary school mathematics teachers. In contrast, the studies by Hamdan, Sari, and Muhammad (2016), Al-Fraihat (2018), Zainab (2020), and Al-Khalidi (2021) included male and female teachers from various academic disciplines, rather than focusing on a specific subject area.

The previous studies were instrumental in guiding the researchers in the development of the theoretical framework, selection of research tools, procedural processes, and statistical methods. Additionally, these studies helped in formulating the study problem and discussing the findings.

The current study, however, distinguishes itself from previous research by focusing specifically on the extent to which secondary school English teachers practice critical thinking skills. To the best of the researcher's knowledge, no prior study has explored this issue among secondary school teachers in Jordan, particularly in the context of teaching the English language.

Methodology

To achieve the study's objectives and answer its research questions, the current study employed a descriptive survey method, which is well-suited for the study's goals and allows for an in-depth exploration of the subject matter.

Sample and Data Collection

The study population included all secondary school English language teachers in the Amman Kasbah District during the first semester (2023/2024), comprising 201 male and 356 female teachers. The study sample consisted of 247 teachers, selected randomly, representing 44% of the study population. This sample reflects the population and study variables. English language teachers were selected, as the research aimed to examine the degree to which

secondary school English teachers implement critical thinking skills. To the best of the researcher's knowledge, no previous studies have explored this topic in relation to secondary

school teachers in Jordan, particularly within the context of teaching English. Table 1 shows the distribution of study sample members based on their factors.

Table (1): Distribution of study sample members according to its variables.

| Variable | Level | Number | Percentage |
|---------------------|------------------------|--------|------------|
| Gender | Male | 90 | 36.4% |
| | Female | 157 | 63.6% |
| | Total | 247 | 100% |
| Years of Experience | Less than 5 years | 37 | 15% |
| | 5 - less than 10 years | 61 | 24.7% |
| | 10 years or more | 149 | 60.3% |
| | Total | 247 | 100% |
| Qualification | Bachelor's | 193 | 78.1% |
| | Postgraduate | 54 | 21.9% |
| | Total | 247 | 100% |

A questionnaire was developed to assess the degree to which English language teachers practice critical thinking skills. This was done after reviewing theoretical literature and previous studies that addressed classroom activities used in teaching speaking skills to non-native language learners. Relevant studies include those by Hamdan, Sari, and Muhammad (2016), Al-Fraihat (2018), Al-Hararsha (2018), Al-Himyari (2019), Al-Jaafra (2020), Ahmad (2020), and Al-Khalidi (2021).

To ensure the validity of the questionnaire, it was first presented to a panel of experts in curricula and teaching methods. Their feedback focused on the clarity, relevance, and linguistic accuracy of the items, as well as their alignment with the educational objectives of the study. Based on their suggestions, adjustments were made to improve the questionnaire. This led to the addition of several new items related to teaching English. The final version of the questionnaire included 34 items, organized into 5 distinct domains (Interpretation Skills, Inference Skills, Distinction Skills, Evaluation Skills, and Comparison Skills). These areas were deemed appropriate for the current research as they align with the English Language subject, both in terms of the subject matter and the language itself. These skills can be applied effectively in English language

teaching, offering flexibility for both teachers and students to engage with them. Furthermore, they are well-suited to the development stage of secondary school students, as they involve higher-order thinking skills that students at this level can understand and apply within the classroom. Additionally, teachers can easily incorporate these skills into their teaching, as shown in the table below:

Table (2): Domains in the questionnaire.

| Domain | Number of Items |
|----------------|-----------------|
| Interpretation | 7 |
| Reasoning | 8 |
| Discrimination | 6 |
| Evaluation | 6 |
| Comparison | 7 |
| Total | 34 |

To test the construct validity of the research tool, it was administered to an exploratory sample of 25 male and female instructors. The Pearson correlation coefficient was calculated between each item and the domain it belongs to, as well as between each item and the total score of the questionnaire. The correlation coefficients between the items and their respective domains ranged from 0.68 to 0.94, while the correlation coefficients between the items and the total score ranged from 0.5 to 0.86. All of these coefficients were statistically significant and within the appropriate levels for this study, with values greater than 0.2 being considered

acceptable. As a result, the tool demonstrated an appropriate level of validity.

To test the study tool's reliability, it was administered to an exploratory sample of 25 male and female teachers. The reliability of the test was calculated, and the Cronbach's Alpha method was used to determine the internal consistency between the items. The Cronbach's Alpha reliability coefficients ranged from 0.884 to 0.916 for the domains, and the overall reliability coefficient was 0.967, indicating that the values are statistically acceptable. Therefore, the research tool demonstrates an appropriate level of reliability.

Table (3): Arithmetic means, standard deviations, and Degree for all domains of the questionnaire, ranked in descending order.

| Domain | Arithmetic Mean | Standard Deviation | Degree of Approval |
|----------------|-----------------|--------------------|--------------------|
| Interpretation | 4.33 | 0.56 | high |
| Discrimination | 4.22 | 0.65 | high |
| Inference | 4.21 | 0.60 | high |
| Comparison | 4.18 | 0.65 | high |
| evaluation | 4.05 | 0.71 | high |
| Total | 4.20 | 0.55 | high |

Table 3 shows that the arithmetic mean for secondary school teachers' use of critical thinking abilities in teaching English is 4.20, with a standard deviation of 0.55, indicating a high degree of practice. The results also revealed that the 'Interpretation' domain ranked first, with a mean of 4.33 and a standard deviation of 0.56, reflecting a high degree. The 'Discrimination' skill ranked second, with a mean of 4.22 and a standard deviation of 0.65, also indicating a high degree. In third place was the 'Inference' domain, with a mean of 4.21 and a standard deviation of 0.60, demonstrating a high degree. The 'Comparison' domain ranked fourth, with a mean of 4.18 and a standard deviation of 0.60, maintaining a high degree. Finally, the 'Evaluation' domain ranked last, with a mean of

Table (4): The means and standard deviations for the degree to which secondary school teachers utilize critical thinking abilities in teaching English from their point of view.

| Variable | level | Number | Arithmetic Mean | Standard Deviation |
|----------|--------|--------|-----------------|--------------------|
| Gender | male | 90 | 4.12 | 0.52 |
| | female | 157 | 4.25 | 0.56 |

Findings/ Results

Results related to the first question: What is the degree of critical thinking skills practice in teaching English language from the secondary stage teachers' point of view?

To answer this question, the arithmetic means and standard deviations were calculated for the degree to which secondary school teachers practice critical thinking skills in teaching English. This calculation was performed for all domains of the questionnaire, as well as for the questionnaire as a whole. The results are presented in Table 3

4.05 and a standard deviation of 0.71, still reflecting a high degree

Results related to the second question: Are there statistically significant differences ($\alpha = 0.05$) in practicing critical thinking skills in teaching English from the secondary stage teacher's point of view due to the variables: gender, years of experience, and academic qualification? To answer this question, the arithmetic means and standard deviations were calculated for the extent to which secondary school teachers practice critical thinking skills in teaching English, based on the variables of gender, years of experience, and academic qualification. The results are presented in Table 4.

| Variable | level | Number | Arithmetic Mean | Standard Deviation |
|---------------------|------------------------|--------|-----------------|--------------------|
| Years of Experience | total | 247 | 4.20 | 0.55 |
| | less than 5 years | 37 | 4.18 | 0.57 |
| | 5 - less than 10 years | 61 | 4.11 | 0.62 |
| | 10 years or more | 149 | 4.25 | 0.51 |
| | total | 247 | 4.20 | 0.55 |
| Qualification | Bachelor's | 193 | 4.25 | 0.52 |
| | Postgraduate | 54 | 4.03 | 0.62 |
| | total | 247 | 4.20 | 0.55 |

Table (4) shows significant differences in the arithmetic means of the degree to which secondary school teachers practice critical thinking skills in teaching English, based on the study variables (gender, years of experience, and

academic qualification). A three-way ANOVA was conducted on the teachers' responses to assess whether the mean differences were statistically significant ($\alpha = 0.05$). The results are presented in Table (5)

Table (5): Three-way analysis of variance (three-way ANOVA) according to the variables (gender, years of experience, and academic qualification).

| Source of Variance | Sum of Squares | Degrees of freedom | Mean Squares | F value | Significance level |
|---------------------|----------------|--------------------|--------------|---------|--------------------|
| Gender | 0.564 | 1 | 0.56 | 1.94 | 0.165 |
| Years of Experience | 0.646 | 2 | 0.32 | 1.11 | 0.331 |
| Qualification | 1.412 | 1 | 1.41 | 4.86 | 0.028* |
| Error | 70.274 | 242 | 0.29 | | |
| Total | 73.493 | 246 | | | |

*Statistically significant at the level ($\alpha = 0.05$).

The results in Table (5) indicate that there are no statistically significant differences ($\alpha = 0.05$) in the arithmetic means of the degree to which secondary school teachers practice critical thinking skills in teaching English, based on the gender variable. This is confirmed by the calculated p-value of 1.94, with a significance level of 0.165.

Table (5) also shows no statistically significant differences ($\alpha = 0.05$) in the arithmetic means of secondary school teachers' use of critical thinking skills in teaching English, based on their years of experience, with a calculated p-value of 1.11 and a significance level of 0.331.

However, the results indicate statistically significant differences ($\alpha = 0.05$) in the arithmetic means of the degree to which secondary school teachers practice critical thinking skills in teaching English, based on the academic qualification variable. This is supported by the calculated p-value of 4.86 and a significance level of 0.028, in favor of teachers

who hold a bachelor's degree

Discussion

The findings presented in Table (3) clearly show that secondary school teachers are highly engaged in using critical thinking skills in their English teaching practices. This is likely a result of their extensive training through workshops, qualifications, and the encouragement they receive from school leadership, which motivates them to integrate modern teaching strategies like critical thinking. The teachers' ability to interpret English texts and link them to real-world examples also plays a key role in helping students retain knowledge, something supported by the Ministry of Education's increasing focus on these skills alongside traditional academic performance metrics.

Interestingly, these results align with Nawafleh (2015), where interpretation skills were ranked highest. However, they stand in contrast to studies like Al-Sumairi (2015) and Al-Asmar (2016), where interpretation skills ranked much lower. These differences could

suggest that various contextual factors—such as the quality of training and the local educational focus—play a significant role in determining how teachers prioritize critical thinking.

The ‘discrimination’ skill, ranked second, is another important aspect of critical thinking, as it helps students differentiate between facts and opinions. This aligns with the developmental stages of secondary school students, who are at a point where they can start to analyze complex ideas more deeply. This finding is in line with Al-Fraihat (2018), though it differs from studies like Al-Humairi (2019) and Hamdan et al. (2016), where the skill was ranked lower. This variation suggests that different educational contexts—like teaching experience or pedagogical approach—may affect how these skills are developed and practiced.

When it comes to ‘inference,’ ranked third, the results show that teachers use this skill to a lesser extent than interpretation and discrimination. This could be because inference requires more time to develop and is more complex in nature, something that becomes more effective when students are given space to engage in independent thinking. To better support students in this area, teachers should create environments where reflection and logical problem-solving are encouraged, and where deductive reasoning can thrive. This ties into findings from Al-Astal (2008) and Al-Syouf (2022), where inference was ranked higher, suggesting that perhaps additional strategies could be put in place to better develop these higher-order thinking skills.

The ‘comparison’ skill, ranked fourth, was the least frequently practiced. This could be because teachers focus more on active learning, which involves students engaging in hands-on activities rather than passive listening. While active learning is essential, teachers may need additional training on how to incorporate comparison and analysis into their lessons

effectively. Encouraging students to explore relationships between concepts and applying comparative thinking will be key in developing this skill. This finding is consistent with Al-Syouf’s research (2022), but it contrasts with studies by Al-Fraihat (2018) and Ajaj & Kanaan (2022), where comparison was ranked higher, further suggesting that more professional development in this area could benefit teachers.

The ‘evaluation’ skill, ranked last, was the least practiced of all. This likely reflects the perception that evaluation requires a higher level of experience and is harder to implement at the secondary school level, particularly with students who are still developing their ability to engage in critical analysis. To address this, teachers could be encouraged to create more opportunities for students

to evaluate information, express opinions, and engage in debates. By doing so, teachers can help students feel more confident in confronting real-world situations and expressing their own ideas. These findings echo Nawafleh’s (2015) study, but differ from Al-Asmar’s (2016) and Ajaj & Kanaan’s (2022) studies, where evaluation was ranked higher.

On the statistical front, the analysis showed no significant differences in the practice of critical thinking skills based on gender or years of experience (Table 5). This suggests that all teachers, regardless of gender or experience level, are equally engaged in applying critical thinking skills. Factors like socioeconomic background and similar training experiences could be influencing these results, meaning that both male and female teachers, regardless of experience, likely share a similar approach to teaching critical thinking. This is consistent with Al-Khalidi’s (2021) study, which found no gender-based differences, and with Hamdan et al. (2016), which reported similar findings based on years of experience.

However, there were significant differences

based on academic qualifications. Teachers with bachelor's degrees were found to use critical thinking skills more frequently than those with postgraduate degrees, which might be because teachers with bachelor's degrees are more recently trained and exposed to modern pedagogical strategies. In contrast, teachers with postgraduate qualifications may not have had the same level of exposure to these newer methods, which could explain their lower proficiency in critical thinking practices. This finding contrasts with Al-Khalidi (2021), which suggested that postgraduate-qualified teachers exhibited greater proficiency. This suggests that ongoing professional development is critical for all teachers, regardless of their academic background, to ensure they remain current with evolving teaching strategies.

Conclusion

This study found that secondary school teachers generally practice critical thinking skills at a high level in their English teaching, with no significant differences based on gender or years of experience. However, female teachers showed significant differences in their use of deductive reasoning, and academic qualifications also played a role.

These findings emphasize the need to integrate critical thinking skills into teacher training programs, with a particular focus on enhancing deductive reasoning. For educators, policymakers, and curriculum designers, this highlights the value of developing frameworks that prioritize critical thinking. Drawing inspiration from successful programs in countries like Finland and Singapore could provide useful insights for strengthening critical thinking practices in Jordan's education system.

Recommendations

Based on the study's findings, the researchers recommend utilizing the identified critical thinking skills and conducting further research on how critical thinking abilities might be

integrated into other academic subjects. They also suggest investigating the extent to which teachers use critical thinking skills across different age groups.

Additionally, the researchers recommend conducting similar studies in other Jordanian schools and exploring additional variables. They emphasize the importance of continuing to train secondary school teachers in critical thinking skills to maintain their current level of practice. Finally, they advocate for providing more activities and events that help teachers practice and further develop their critical thinking abilities

Limitations

The generalizability of the results of this study is limited due to the use of a questionnaire that focuses on five critical thinking skills and targets English language teachers in secondary schools in Jordan. Therefore, the findings should be interpreted within the context of the specific questionnaire used, the geographical location of the study, and the conditions under which it was conducted.

Disclosure Statement

- **Ethical approval and consent to participate:** All ethical guidelines were strictly followed in conducting this research. Ethical approval was obtained where required, and all participants provided informed consent before participating in the study. Confidentiality and anonymity of all participants and businesses involved have been ensured throughout the research process.
- **Availability of data and materials:** Data available on reasonable request from the corresponding author.
- **Author contribution:** **Malak Mohammad Humaid:** Introduction, Developing the study tool, Implementation, Discussion. **Mohammad Hamzeh:** Reviewing the tool,

Statistical analysis, Results, Study problem and questions.

- **Conflict of interest:** The authors declare no conflicts of interest regarding this manuscript.
- **Funding:** No funds were received to support this research, all costs associated with the study were covered by the authors.
- **Acknowledgments:** Special thanks are extended to the Middle East University, Amman, Jordan, for providing the Support necessary for this research.

Open Access

This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc/4.0/>

References

- Abo-Alkail, Y., & Abu Mathana, B. (2020). The effect of an educational program based on the Webquest on the development of critical thinking amongst first secondary students in Jordan. *An-Najah University Journal for Research - B (Humanities)*, 34(1), 159–186. <https://doi.org/10.35552/0247-034-001-006>
- Al-Asasleh, S., & Bsharah, M. (2012). Effect of a Training Program for Critical Thinking Skills on Developing Reflective Thinking of 10th Female Graders in Jordan. *An-Najah University Journal for Research - B (Humanities)*, 26(7), 1655–1678. <https://doi.org/10.35552/0247-026-007>
- Ahmad Z. (2020). Beliefs about Critical Thinking among English Teachers in Qasabet Al-Mafraq, Jordan, *Journal of Educational and Psychological Sciences*, 4 (8), 175-192.
- Ajaj and Kanaan. (2022). The degree to which female student teachers practice scientific thinking skills from the point of view of teachers in cooperating schools, Al-Zarqa. *Journal for Research and Human Studies*, 23 (1), 365-379. <http://doi.org/10.12816/0061455>.
- Al-Anazi, Sultan. (2011). *The difficulties faced by Arabic language teachers in the intermediate stage in the State of Kuwait in applying critical thinking skills from their point of view*, (unpublished master's thesis), Middle East University, Jordan.
- Al-Asmar, Alaa. (2016). *Productive thinking skills included in the content of mathematics curricula for the upper basic stage, and the extent to which tenth grade students acquire them*, (unpublished master's thesis), Islamic University, Gaza, Palestine.
- Al-Astal, Hind. (2008). *Critical thinking skills included in the content of the eleventh-grade literature and texts curriculum and the extent to which students acquire them*. (Unpublished master's thesis), Islamic University, Gaza, Palestine.
- Al-Darsi, Doaa. (2022). Evaluation of the English language course (Mega Goal 5) for the third year of secondary school in light of critical thinking skills, *International Journal of Educational and Psychological Sciences IJEPS*, 71(1), 344-380.

- Al-Fraihat, Hanaa. (2018). The degree to which government basic school teachers practice critical thinking skills in Ajloun Governorate from the point of view of the teachers themselves, *Journal of Social Studies and Research - Martyr Hama Lakhdar University - El Oued*. (124-141).
- Al-Ghannami, K., Al-abdulkarim, R. (2024). *Critical Thinking Teachers' Stages of Concern*
- Al-Harbi M. (2017). *Exploring English language teaching approaches in Saudi Higher Education in the West Province*. (Unpublished PhD thesis). School of Education. College of Social Science. University of Glasgow. <https://eleanor.lib.gla.ac.uk/record=b3308066>.
- Al-Khalidi, Jamal. (2021). The degree to which Islamic education teachers practice critical thinking skills in the Kingdom of Saudi Arabia, *Dirasat Educational Sciences*, 48 (2), 337-352. <https://dsr.ju.edu.jo/djournals/index.php/Ed u/article/view/2810>.
- Al-Malham, Noura (2023). The effect of an enrichment program based on dynamic assessment on developing critical thinking among gifted female students. *King Faisal University Journal*, 39 (1), 162-185.
- Al-Otaibi, Badriya. (2022). The effect of using reflective writing strategy in mathematics in developing critical thinking skills among gifted female students in the city of Taif. *Arab Journal of Disability and Giftedness Sciences*, 6(21), 87-112. <https://doi.org/10.54940/ep64236189>.
- Al-Sumairi, Yahya. (2015). *Evaluating the activities of the jurisprudence book for the first intermediate grade in light of critical thinking skills*, (unpublished master's thesis). Taibah University. Kingdom of Saudi Arabia.
- Al-Syouf, Nahil. (2022). *Critical thinking skills included in the science textbook for the fourth grade in Jordan*. (Unpublished master's thesis), Middle East University, Amman, Jordan.
- Al-Syouf, Nahil. (2022). *Critical thinking skills included in the science textbook for the fourth grade in Jordan*. (Unpublished master's thesis), Middle East University, Amman, Jordan.
- Al-Turki, Baidaa, and Al-Nashwan, Noha. (2021). The degree to which female teachers practice creative thinking skills in teaching English at the intermediate level, *International Academic Journal in Educational and Psychological Sciences*, 2(2), 19-36.
- Darwin, Rusdin, D., Mukminatien, N., Suryati, N., Laksmi, E. D., & Marzuki. (2024). Critical thinking in the AI era: An exploration of EFL students' perceptions, benefits, and limitations. *Cogent Education*, 11(1), 1-18. <https://doi.org/10.1080/2331186X.2023.2290342>.
- Facione, P. A. (2015). *Critical Thinking what it is and Why It Count*. Retrieved, January 15, 2019, from http://www.insightassment.com/pdf_files/what&why2006.Pdf
- Humaid, Malak. (2023). *Practicing Critical Thinking Skills by Secondary Stage Teachers' in Teaching English Language*, (unpublished master's thesis). Middle East University. Hashemite Kingdom of Jordan.
- Jamil, M., Anwar, M., Ali, M. J. (2024). Developing critical thinking skills in English classrooms at the secondary level: Teachers' perspective. *Journal of Social Sciences Development*, 3(1), 76-85.
- Ministry of Education. (2023). *Annual Monitoring and Evaluation Report of the Ministry of Education \ Education Strategic*

Plan 2022/2023, Available at <http://efaidnbmnnnibpcajpcglefindmkaj/h>
https://moe.gov.jo/sites/default/files/education_strategic_plan_annual_monitoring.pdf.

- Nawafleh, Walid. (2015). Critical thinking skills included in the content of chemistry textbook questions for the ninth and tenth grades in Jordan, *Al-Manara Magazine*. 21(4), 342-207.
- Wei, J., & Li, H. (2024). A Systematic Review of Critical Thinking Development in Information and Communication Technology-Supported English as a Foreign Language Teaching from 2015 to 2024. *Linguistic Studies*, 6(6), 990–1007.