

**T.C.
ISTANBUL AYDIN UNIVERSITY
INSTITUTE OF GRADUATE STUDIES**



**INVESTIGATING THE UTILIZATION OF CRITICAL
THINKING SKILLS BY ADULT EFL LEARNERS**

MASTER'S THESIS

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**Department of Foreign Languages Education
English Language Teaching Program**

SEPTEMBER, 2024

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SEPTEMBER, 2024

THESIS EXAM REPORT

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I hereby declare with respect that the study “Investigating The Utilization Of Critical Thinking Skills By Adult EFL Learners”, Which I Submitted As A Master Thesis, Is Written Without Any Assistance In violation of scientific ethics and traditions in all the processes from the Project phase to the conclusion of the thesis and that the works I have benefited are from those shown in the References.

(.../.../20...)

Sabah M. F. ABUZAQIQA

FOREWORD

First and foremost, I would like to express my deepest gratitude to my supervisor, Prof. Dr. Saeed MEHRPOUR, for his invaluable guidance, support, and encouragement throughout my research journey. Your expertise and insights have been instrumental in shaping my work.

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Lastly, I dedicate this acknowledgment to my husband Ahmad, Your love, patience, and support have been the foundation of my success. Thank you for always being there for me.

September, 2024

Sabah M. F. ABUZAQIQA

INVESTIGATING THE UTILIZATION OF CRITICAL THINKING SKILLS BY ADULT EFL LEARNERS

ABSTRACT

Language instructors are now promoting critical thinking instruction in higher education settings, particularly universities, as it is considered an essential skill for the 21st-century job market. This study investigates the critical thinking skills used by adult English as a Foreign Language (EFL) students. The primary goal of this research is to uncover the extent to which these learners utilize critical thinking skills in their academic life. The study uses a quantitative approach which includes using an adapted version of a critical thinking ability questionnaire CTA developed by Xuelian Li and Jianda Liu's (2024) study to gather insights from EFL learners about their usage and experiences using these skills. The study involved 140 students, with a focus on bachelor's and Master's levels, selected using convenient sampling. Critical thinking skills are crucial in teaching and learning English as a foreign language due to the development of perception and intelligence. To understand students' awareness of critical thinking skills, adult EFL learners were provided with a questionnaire to investigate their use of critical thinking skills. The research instrument is originally an adaptation of the 2000 California Critical Thinking Skills Test (CCTST). 30-item multiple-choice test designed to measure students' ability to interpret, analyze, evaluate, and reason. The CCTST was derived from a Delphi report and based on consensus scores among 46 experts. The findings provide valuable insights into the importance of current pedagogical methods and suggest potential approaches for enhancing critical thinking skills among EFL learners. The study reveals that adult EFL learners are excelling in critical thinking skills, including interpretation, inference, evaluation, self-regulation, explanation, and analysis, which could significantly improve their language and academic development in English as a foreign language.

Keywords: critical thinking skills, EFL learners.

YETİŞKİN İNGİLİZCE YABANCI DİL ÖĞRENCİLERİNİN ELEŞTİREL DÜŞÜNME BECERİLERİNİN KULLANIMININ ARAŞTIRILMASI

ÖZET

Dil öğretmenleri, 21. yüzyıl iş piyasası için temel bir beceri olarak kabul edilen eleştirel düşünme eğitimini yüksek öğretim kurumlarında, özellikle üniversitelerde teşvik etmektedir. Bu çalışma, yetişkin İngilizceyi Yabancı Dil (EFL) öğrencilerinin kullandığı eleştirel düşünme becerilerini incelemektedir. Bu araştırmanın temel amacı, bu öğrencilerin akademik yaşamlarında eleştirel düşünme becerilerini ne ölçüde kullandıklarını ortaya çıkarmaktır. Çalışma, EFL öğrencilerinin bu becerileri kullanma ve deneyimlerine dair içgörüler toplamak için Xuelian Li ve Jianda Liu'nun (2024) çalışmasından uyarlanan bir eleştirel düşünme yetenekleri anketini içeren nicel bir yaklaşım kullanmaktadır. Araştırma, rahat örnekleme yöntemiyle seçilen lisans ve yüksek lisans seviyesindeki 140 öğrenci ile gerçekleştirilmiştir. Eleştirel düşünme becerileri, algı ve zekanın gelişimi nedeniyle İngilizceyi yabancı dil olarak öğretim ve öğrenimde kritik öneme sahiptir. Öğrencilerin eleştirel düşünme becerileri konusundaki farkındalıklarını anlamak için, yetişkin EFL öğrencilerine eleştirel düşünme becerilerini kullanımlarını araştırarak bir anket sunulmuştur. Araştırma aracı, 2000 California Eleştirel Düşünme Becerileri Testi'nin (CCTST) uyarlamasıdır. Öğrencilerin yorumlama, analiz etme, değerlendirme ve akıl yürütme yeteneklerini ölçmek için tasarlanmış 30 maddeden oluşan çoktan seçmeli bir testtir. CCTST, bir Delphi raporundan türetilmiş ve 46 uzman arasındaki konsensüs puanlarına dayanmaktadır. Bulgular, mevcut pedagojik yöntemlerin önemine dair değerli içgörüler sunmakta ve EFL öğrencileri arasında eleştirel düşünme becerilerini geliştirmek için potansiyel yaklaşımlar önermektedir. Çalışma, yetişkin EFL öğrencilerinin yorumlama, çıkarım yapma, değerlendirme, öz düzenleme, açıklama ve analiz gibi eleştirel düşünme becerilerinde mükemmel

olduklarını ve bunun, İngilizceyi yabancı dil olarak öğrenim ve akademik gelişimlerini önemli ölçüde iyileştirebileceğini ortaya koymaktadır.

Anahtar Kelimeler: eleştirel düşünme becerileri, EFL öğrencileri.



TABLE OF CONTENTS

DECLARATION	i
FOREWORD	ii
ABSTRACT	iii
ÖZET	iv
TABLE OF CONTENTS	vi
LIST OF ABBREVIATIONS	viii
LIST OF TABLES	ix
LIST OF FIGURES	x
I. INTRODUCTION	1
A. Introduction	1
B. Definitions of Key Terms.....	3
1. Critical Thinking Skills	3
2. Clarity:	4
3. Accuracy:	5
4. Precision:.....	5
5. Relevance:	5
6. Depth:	5
7. Breadth:	5
8. Logic:	6
a. Critical thinking in language teaching and learning	8
b. Critical thinking in EFL classrooms	9
c. EFL Learners.....	10
C. Statement of problem	10
D. Research questions	10
E. Research objectives	11
II. LITERATURE REVIEW	12
A. Introduction	12
B. Defining Critical Thinking.....	12

C.	Contexts and Models of Critical Thinking.....	13
D.	Critical Thinking in Academic and Language Contexts	13
E.	Importance of Critical Thinking in EFL Education	14
F.	Studies on Critical Thinking in EFL Contexts.....	14
G.	Critical thinking in Higher Education in Turkey	18
III.	METHODOLOGY.....	20
A.	Introduction	20
B.	Research design.....	20
C.	Setting of the study	20
D.	Participants	20
E.	Instrument	23
F.	Data collection procedure.....	27
G.	Data analysis	28
H.	Ethical Considerations	28
IV.	Results and Discussion.....	29
A.	Introduction	29
B.	Findings from the questionnaire:	29
1.	Results related to the main research question:	29
C.	Answering research questions:.....	38
1.	To what extent do adult EFL learners implement critical thinking skills in their English courses?	38
2.	Which critical thinking skills are used more by adult EFL learners?	40
V.	CONCLUSION.....	42
A.	Introduction	42
B.	Summery of the key findings:	42
C.	Overview of the study's descriptive analysis results	42
D.	Summary of correlation analysis findings.....	43
E.	Pedagogical Implications	44
F.	limitations of the study.....	44
VI.	REFERENCES	46
	APPENDICES	49
	RESUME.....	54

LIST OF ABBREVIATIONS

CCTST : California Critical Thinking Skills Test.

CT : Critical thinking.

EFL : English as a Foreign Language.

HOTS : (higher-level thinking), essential cognitive skills beyond memorization, requiring active and higher-level engagement in educational frameworks for deeper understanding and learning.

Q : Question

LIST OF TABLES

Table 1. The cognitive skills and sub-skills required for critical thinking (Facione, 1990, p. 6).	6
Table 2. Distribution of the study sample according to gender	21
Table 3. Distribution of the study sample according to age.....	21
Table 4. Distribution of the study sample according to Academic degree	22
Table 5. The Main Sections of the Study Instruments	23
Table 6. Factor analysis for every item of the questionnaire	24
Table 7. Pearson correlation coefficients	25
Table 8. Convergent Reliability	27
Table 9. Scoring Key (Correction Key)	29
Table 10. Interpretation and inference skills.....	30
Table 11. Analysis and Explanation skills	32
Table 12. Evaluation skill	34
Table 13. Self-regulation skill.....	35
Table 14. Person correlations for the relationship between numerical variables.....	36

LIST OF FIGURES

Figure 1. Participants gender	21
Figure 2. Participants' age	22
Figure 3. Participants' academic degree	22
Figure 4. Interpretation and inference skills' mean scores	31
Figure 5. Analysis and explanation skills' mean scores	33
Figure 6. Evaluation skill's mean score.....	35

I. INTRODUCTION

A. Introduction

In recent years, teaching English has undergone significant changes. In English language teaching, new approaches that enhance critical thinking skills have been applied. These skills are crucial for learners to navigate the complexities of today's globalized, information-rich world.

Almost everyone is aware that the traits that set humans apart from other creatures are mostly related to their capacity for critical thinking (Tosuncuoglu, 2018). Whiting (2020) noted that human development plays a crucial role in maximizing potential in this era, as the World Economic Forum has identified the ten most important skills for the job of the future, including problem-solving skills, creativity, active learning, and critical and analytical thinking. In fact, complex problem-solving, analytical thinking, and critical thinking are some of the most important skills that everyone should have, but not everyone is prepared for or aware of them. In the upcoming world, we need creative, questioning, informed, and educated individuals who can collaborate to find solutions to various problems (Kurt, 1991).

English, the global lingua franca, presents opportunities and challenges for non-native speakers in other countries. As a second or third language, barriers to reading, listening, and speaking hinder the development of critical thinking and other skills, leading to a significant gap in communication and critical thinking skills among these individuals (Eleazar Evan Moeljono and Alies Poetri Lintangari, 2021). Atkinson (1997) argues that critical thinking is applied to specific subjects in Western contexts, and EFL teaching in non-Western contexts is excluded due to its cultural specificity. Students are required to use critical thinking skills like analysis, synthesis, and evaluation for meaningful learning, emphasizing the importance of critical thinking in EFL preparatory programs. Critical thinking is essential for personal, academic, professional, and societal success; it enables individuals to think

independently, question assumptions, and approach problems with a rational and analytical mindset (Shahani et al., 2022).

Broadly speaking, one of the primary goals of education is to teach and learn critical thinking techniques (Marin and Halpern, 2011). Researchers (e.g., Dewey and Bento, 2009; Lin, 2018) have recommended integrating critical thinking skills into different learning environments, making them an essential component of the English language curriculum, as they are considered important and can be applied across various learning contexts. Recent research on teaching English as a foreign language emphasizes the importance of developing critical thinking among learners, noting that using the target language and understanding its meaning are insufficient. Critical thinking must be integrated into English language teaching to enhance learning experiences, make learning more useful and efficient, enable effective communication, the acquisition of knowledge, and dealing with ideas, beliefs, and attitudes. It includes involving learners in activities that encourage and promote analysis, evaluation, and synthesis of information in order to develop higher-order thinking skills such as decision-making, problem-solving, and critical analysis.

Critical thinking is essential in language acquisition since it improves learners' overall competency. It helps them gain a better understanding of vocabulary, linguistic structures, and cultural differences by analyzing, questioning, and assessing language content. It also allows them to develop communication by considering purpose, audience, and context, leading to better use of language (Steiner and Shoemaker, 1993). Critical thinking provides learners with problem-solving skills, allowing them to overcome language limitations to examine texts and contexts, identify supporting details, and recognize main ideas and underlying themes. It assists in distinguishing between credible and biased information, evaluating sources, and enhancing research skills. Critical thinkers also demonstrate adaptability and creativity by demonstrating flexibility and exploring different ways to express themselves. Finally, critical thinking promotes cultural awareness, encouraging learners to respect diverse perspectives, negotiate intercultural interactions more effectively, and avoid stereotypes.

Gough (1991) and Halpern (2003) emphasize the importance of critical thinking skills for educated individuals to adapt to a rapidly changing world, highlighting their irresistible role in shaping and adjusting to change and novelty

(Tosuncuoglu, 2018). These skills allow individuals to evaluate circumstances successfully, navigate uncertainty in dynamic contexts, and make informed decisions. Critical thinking skills enable individuals to analyze situations, consider multiple perspectives, and make well-reasoned judgments, fostering adaptability and embracing change in an ever-evolving environment. Therefore, fostering these skills is vital for individuals to thrive in a world that is always changing (Faramarzi et al., 2016).

Critical thinking is a crucial skill for academic and professional success, especially in language learning. This involves systematically analyzing, evaluating, and synthesizing data to make informed decisions and effectively tackle intricate issues. Language learners with strong critical thinking skills can better understand linguistic nuances, engage in meaningful discussions, and express their ideas coherently. The relationship between critical thinking and language learners is symbiotic, as language acquisition involves understanding cultural contexts, interpreting language nuances, and adapting communication strategies. Educators play a vital role in fostering critical thinking among language learners by incorporating interactive activities, encouraging analytical thinking, and providing collaborative discussions.

Existing studies investigating critical thinking skills generalize findings across educational settings. However, new opportunities or challenges that English language learners face in some settings remain unexplored. This is due to the scarcity of research focusing on learners of English as a foreign language in the context of universities in general and in particular. The use of critical thinking skills by EFL students in Turkish higher education institutions has not received much direct research attention. Therefore, the purpose of this study is to address the knowledge gap about the use of critical thinking skills among adult EFL learners, which will help teachers and learners likewise.

B. Definitions of Key Terms

1. Critical Thinking Skills

Critical thinking skills involve logically analyzing, evaluating, interpreting, and synthesizing information to solve problems effectively, make informed

decisions, and engage in independent and reflective thinking. They involve questioning assumptions, considering different perspectives, recognizing biases, and drawing well-founded conclusions (Gratton, 2004). These skills are crucial in various aspects of life, including education, work, and decision-making, since they help navigate complex situations, think analytically, and make good decisions. Puspitasari et al., (2020) emphasize the integration of critical thinking skills into the educational environment to help learners enhance their critical thinking skills through several language skills, including speaking, writing, listening, and reading. Mustofa, Ubaidillah, and Harianti's (2020) research emphasizes the significance of critical thinking skills in EFL learning and the necessity for intentional instruction to enhance these skills.

EFL learners require critical thinking skills to effectively analyze information and make informed decisions. A study at Karabuk University in Turkey found that there is a need for improved education in critical thinking among EFL students. The research underscored the importance of teachers being critical thinkers themselves to effectively promote this skill in the classroom (Tosuncuoglu, 2018). Critical thinking is a crucial concept in EFL, where language teachers emphasize the learner's active role and incorporate cognitive theories into their teaching practices (Üstünlüoğlu, 2004). Without the application of critical thinking skills, language learning becomes mere syntax with no clear logical connections, hindering deeper understanding and proficiency (Gough, 1991). The literature emphasizes the importance of developing critical thinking skills in EFL learners to improve their problem-solving, decision-making, and academic performance.

Critical thinking involves the objective analysis and evaluation of information to form reasoned decisions or judgments. Critical thinkers possess clear, precise, and relevant views that are deep, broad, and logical (Sen, 2011). Although there is no uniform set of rules, there are key standards that guide the process, including the following:

2. Clarity:

The first criterion emphasizes the importance of clear communication in critical thinking. It stresses the need for well-defined concepts and precise language. Critical thinkers aim to convey their ideas in a way that others can understand. It is

essential to express ideas in a clear and concise manner, allowing others to evaluate the validity and importance of the ideas presented.

3. Accuracy:

Accuracy entails ensuring that information and claims are trustworthy and error-free. Critical thinkers evaluate facts, avoid false assumptions, and use reliable sources. They prioritize factual correctness in analysis and evaluation, relying on credible and reliable sources of information. They actively verify facts to avoid errors or misunderstandings, as accuracy is closely tied to the reliability of information and the truthfulness of claims. This standard helps avoid inaccuracies and biases in thinking.

4. Precision:

Precision refers to being particular and exact in your wording. It improves clarity and reduces misconceptions. Critical thinkers dismiss broad generalizations and seek precise, targeted formulations. They care about choosing words and their intended meanings to avoid ambiguity, and this ensures effective communication. Effective critical thinking requires precise language.

5. Relevance:

Relevance refers to keeping on point and addressing the main concerns. Critical thinkers assess whether knowledge or arguments are truly relevant to the topic at hand. Irrelevant information can distract from the main topic. It is worth noting that critical thinking is a critical process that focuses on identifying and prioritizing information that is directly related to the issue at hand.

6. Depth:

Depth includes going beyond surface-level comprehension. Critical thinkers investigate complexities, question fundamental assumptions, or seek deeper understandings. Critical thinking involves delving into the complexities and nuances of a topic, seeking additional information, evidence, and alternative viewpoints.

7. Breadth:

Breadth refers to considering various viewpoints and alternate perspectives.

Critical thinking involves being open-minded and seeking out alternative viewpoints, even if they contradict one's beliefs. Critical thinkers evaluate issues or make decisions by considering different arguments and weighing their strengths and weaknesses. It also fosters intellectual humility and encourages respectful dialogue, leading to a more robust exchange of ideas.

8. Logic:

Logic is a crucial skill in critical thinking, involving the development of legitimate arguments based on facts and logical reasoning. It helps critical thinkers identify fallacies, assess deductive and inductive reasoning, and avoid inconsistencies. In essence, logic helps critical thinkers develop sound, well-supported arguments and identify problems in others' reasoning, making it essential for making informed decisions, effective communication, and reaching valid conclusions.

These seven intellectual standards guide critical thinking and are not inseparable from one another. They often interrelate and reinforce each other and applying them increases one's ability to think critically, make informed decisions, and deal with complex problems effectively.

The American Philosophical Association (APA) conducted a comprehensive study in 1990 using the Delphi method to define critical thinking. The study involved 46 experts from various disciplines, and participants agreed on a definition of critical thinking as purposeful, self-regulatory judgment based on interpretation, analysis, evaluation, and inference. The study aimed to develop teaching strategies for college-level critical thinking. The experts agreed that critical thinking has six main components, which are illustrated in the following table:

Table 1. The cognitive skills and sub-skills required for critical thinking (Facione, 1990, p. 6).

Skills	Sub-skills
1. Interpretation	categorization, decoding significance, clarifying meaning
2. Analysis	examining ideas, identifying arguments, analyzing arguments
3. Evaluation	assessing claims, assessing arguments
4. Inference	querying evidence, conjecturing alternatives, drawing conclusions
5. Explanation	stating results, justifying procedures, presenting arguments
6. Self-regulation	self-examination, self-correction

The Delphi Report from 1990 outlines the competencies that critical thinking skills encompass:

1. **Interpretation:** EFL learners examine and comprehend information from several sources. Interpretation is the process of understanding and comprehending information from various sources, including written texts, spoken language, visual media, and cultural contexts. EFL learners, such as students, engage in this process by decoding meanings, identifying nuances, and extracting relevant information. For instance, they can interpret the author's viewpoint, underlying assumptions, and intended messages when reading a news article.
2. **Analysis:** EFL learners analyze complicated ideas and recognize patterns and relationships. They analyze literature, scientific papers, historical events, and artworks to understand arguments, cause-and-effect relationships, and recurring themes, such as metaphors, symbolism, and thematic elements. Analyzing is the process of breaking down complex ideas into their constituent parts, identifying patterns, relationships, and underlying structures.
3. **Evaluation:** EFL learners evaluate relevant evidence, arguments, and claims. They critically assess evidence, arguments, and claims to determine their validity, reliability, and relevance. They evaluate research papers, advertisements, and persuasive speeches, considering the strength of evidence, biases, and credibility of sources. For instance, an EFL student evaluates an online article by checking the author's credentials and the quality of supporting data.
4. **Inference:** EFL learners conclude from the available information as well as the context. Inference is the process of drawing conclusions based on available information and contextual clues, often used by EFL learners to infer intentions, emotions, or unstated meanings. This involves connecting sentences, predicting outcomes, and grasping implied messages. An example is an EFL student inferring a character's motivations in a short story.
5. **Explanation:** EFL learners demonstrate clear communication, logical sequencing, and coherence in expressing their thoughts, reasoning, and

conclusions. They articulate ideas, justify opinions, and provide well-structured explanations. They organize essays, presentations, or debates, demonstrating effective explanations. An example is an EFL student explaining a scientific concept step-by-step, using appropriate vocabulary and linking ideas logically.

- 6. Self-regulation:** It is a crucial skill for English as a Foreign Language (EFL) learners, enabling them to manage their learning process. It involves self-monitoring and self-control, controlling emotions, avoiding distractions, and adapting strategies based on feedback or changing circumstances. EFL learners actively observe and assess their language use, identifying areas for improvement. Self-control involves resisting distractions and staying focused during language practice sessions. Emotional regulation is essential for managing frustration, anxiety, and self-doubt during language learning. Adaptability allows learners to adjust their learning strategies based on feedback and changing circumstances. Goal setting is another key aspect of self-regulation, as learners set clear language learning goals that provide direction and motivation. Meta-cognition, which involves understanding one's thought processes, helps learners reflect on their learning experiences, evaluate their progress, and make informed decisions about their next steps.

a. Critical thinking in language teaching and learning

Critical thinking is a crucial skill in language teaching and learning that involves active and longitudinal learning, problem-solving, and empowerment (Tosuncuoglu, 2018). It enables individuals to become effective problem solvers and lifelong learners. Critical thinking is gaining prominence in English as a Foreign Language (EFL), emphasizing the learner's active role and cognitive learning theories (Davidson and Dunham, 1997). Critical thinking is essential for comprehending language, as it involves analyzing word usage in various contexts and implicitly understanding the language. It involves the capacity to analyze, investigate, accept or reject what one reads or listens to, evaluate, and draw conclusions (Tosuncuoglu, 2018). Critical thinking is encouraged through activities involving discussions, reading, and evaluation.

b. Critical thinking in EFL classrooms

Critical thinking in English as a Foreign Language (EFL) classrooms has been extensively researched and discussed, focusing on promoting dialogue, developing high-quality talk, and encouraging learners' participation (Tosuncuoglu, 2018). Incorporating critical thinking enhances language learning, cultural awareness, and metacognitive processes (Steiner and Shoemaker, 1993). However, challenges exist in non-Western contexts like Turkey, where English is taught as a foreign language. Critical thinking pedagogies can empower learners and promote meaningful communication, but their implementation may face obstacles in the educational systems in terms of political and ideological issues. The following points summarize the intersection of political and ideological issues with critical thinking skills in EFL classrooms:

1. Political decisions often influence the choice of curriculum and content taught in English language classrooms, as educational institutions, governments, and policymakers decide which topics are included or excluded (Hamdi, 2023).

2. In some cases, the political climate restricts individuals' freedom to express dissent due to their fear of repercussions. Critical thinking skills encourage students to participate and express their views, even when discussing the most sensitive topics.

3. Language itself is a powerful tool for promoting a particular ideology that serves the interests of a particular party, as English language learners encounter speeches, media texts, and news that reflect political bias. Students' possession of critical thinking and analysis skills allows them to understand hidden messages, determine the content of propaganda, and develop an accurate understanding that helps them recognize linguistic manipulation.

4. Perspectives differ between cultures, and each culture has its own ideology. EFL classes are often made up of a diverse group of students with different backgrounds and beliefs. Critical thinking skills help promote meaningful and respectful dialogue and appreciation of different points of view.

By teaching students critical thinking skills, teachers can enable them to deal with diverse viewpoints thoughtfully, as they have a major role in contributing to the development of more aware and enlightened individuals (Yang and Gamble, 2013).

All in all, the literature on critical thinking in English as a Foreign Language (EFL) classrooms emphasizes the importance of teaching meta-cognitive skills and the need for high-quality training for staff and students (Li, 2023).

c. EFL Learners

EFL learners are learners who are learning English as a foreign or additional language. This technical term is commonly used to refer to individuals who are learning English in a non-English-speaking setting when English is not the primary language of communication. EFL learners may study English for various reasons, such as professional growth, personal interest, or travel. The term separates these learners from English as a Second Language (ESL) learners, who study English in an environment where English is the official or common language. EFL learners often face lots of challenges in acquiring and developing English language skills because of their limited exposure to English in their daily lives. Students who use a second language to express thoughts and feelings in academic tasks require critical thinking and linguistic skills. However, they struggle to engage in critical thinking in their second language. From a socio-cultural point of view, when students express themselves in an L2, they are not only conveying their thoughts from L1 to L2 but also redefining their identities. As a result, improving their L2 proficiency is essential for their performance (Lantolf, 1994).

C. Statement of problem

Critical thinking skills utilization among English as a Foreign Language (EFL) learners is a very important issue that requires investigation. Consequently, there is a need to investigate the level at which adult EFL learners use critical thinking skills along their language learning journey.

D. Research questions

This research will seek to answer the following questions:

1. To what extent do adult EFL learners implement critical thinking skills in their English courses?
2. Which critical thinking skills are used more by adult EFL learners?

E. Research objectives

The study will aim to explore and understand how adult EFL learners utilize their critical thinking skills. It will evaluate their critical thinking skills and provide insight into their ability to analyze, synthesize, and evaluate information. Factors influencing critical thinking, such as language proficiency, educational background, cultural context, and teaching methodologies, will be explored to help teachers design effective strategies to enhance critical thinking abilities.

The research will try to determine the characteristics of EFL learners' critical thinking skills. By conducting a descriptive quantitative research design and using a diagnostic test of critical thinking abilities, the study will seek to provide insight into the current status of critical thinking abilities among adult EFL learners and will suggest future directions for enhancing these skills in the educational context.

II. LITERATURE REVIEW

A. Introduction

The research on critical thinking skills includes a range of approaches to help learners acquire and improve these and methods developed perspectives, The concept of critical thinking in the field of education has received great attention due to its interest in developing cognitive skills and school curricula for educational interventions learners and its support for various edu. This chapter begins with a brief overview of the definition of critical thinking and how it has developed over the years. It then moves on to research that discusses the implementation of critical thinking skills in EFL contexts.

B. Defining Critical Thinking

Psychologists and educationalists were interested in learning more about human cognitive abilities and the mental tasks that might be accomplished during thinking. Both Dewey (1933) and Norris (1985) defined critical thinking as making a rational decision about what to believe or not to believe. Bloom's Taxonomy (1956) categorizes cognitive skills into six levels: knowledge, comprehension, application, analysis, synthesis, and evaluation. Knowledge involves recognizing and recalling previously learned material; comprehension involves explaining ideas; application involves applying knowledge to address issues; analysis deconstructs complex information; synthesis involves producing something new; and evaluation requires judgment, and critique. Bloom's Taxonomy helps educators design assessment, just effective learning experiences that engage students at different cognitive levels. Lipman (1991) and Norris and Ennis (1989) describe critical thinking as healthy skepticism, reflecting beliefs and actions, while Maiorana (1992) emphasizes the function of critical thinking in understanding, evaluating viewpoints, and solving problems. According to Ennis (1986), critical thinking as 'reasonable reflective thinking', involves skills like reflection, making inferences, reasoning, and

evaluation, which can be learned independently and transferred across various domains.

C. Contexts and Models of Critical Thinking

Scholars such as Siegel (1988) have established numerous models of critical thinking, emphasizing the significance of accurately analyzing assertions and reasoning. Oster (1989) and Schafersman (1991) highlight the cultural and social components of critical thinking, demonstrating the need for understanding its context-specific characteristics. Davidson (1998) contests the idea that critical thinking is only a social skill, arguing that it may be developed in a variety of cultural contexts and has universal applicability. Benesch (1999) highlights that critical thinking extends beyond the higher order of thinking; it includes questioning conventional beliefs and ideas and revolutionizing education and society. Baer (2016) defines critical thinking as the ability to evaluate the truth, value, and validity of one's own ideas and the ideas of others in a logical argument. Despite different definitions of CT, educators generally agree that it is a critical goal in formal education (Kealey, Holland, and Watson, 2005). In light of this, everyone agrees that critical thinking fosters individuals to become significant problem solvers and successful lifelong learners (Tosuncuoglu, 2018).

D. Critical Thinking in Academic and Language Contexts

Critical thinking skills are important competencies that students must acquire in academic language situations (Davidson and Dunham, 1997). Its pedagogy focuses on examining the deep meanings, social consequences, and personal implications of any knowledge, technology, text, or topic, its connections to self and society, and its internal structure (Marin and Halpern, 2011).

Teaching critical thinking skills aims to help learners make informed decisions based on the careful weighing of facts. Although it is a complex and interrelated topic, Buskist and Irons (2008) emphasize that students need to learn critical thinking skills and various sub-skills, including enhancing a satirical approach to problem solving and decision-making, solving problems with simple results, finding supporting and refuting evidence, and establishing a cautious

approach towards personal predispositions, assumptions, and standards that may hinder objective resolution.

E. Importance of Critical Thinking in EFL Education

In the field of education, many studies have discussed the importance of critical thinking skills in developing the learning process in general and learning English as a foreign language in particular. The following literature review highlights studies that address the significance of critical thinking skills in education.

Different studies, such as Akinoglu and Baykin (2015), Faramarzi et al. (2016), Li (2023), Maiorana (1992), Tosuncuoglu (2018), and Yang and Gamble (2013) stressed the importance of critical thinking as it enables students to ask questions that may not have occurred to them before. From their perspectives, students who possess critical thinking skills can express their opinions logically and concisely, learn from and benefit from their teachers and peers, and participate in discussions and debates.

Murawski (2014) emphasized that students who utilize critical thinking skills deal with the school curriculum better, thoughtfully, and effectively. These skills extend beyond the classroom and the workplace, which contributes to improving the quality of life.

Stefan et al. (2019) conducted a study that emphasizes the significance of critical thinking skills, as these skills enable students to think independently, evaluate information, and thus make informed decisions. The researchers in this study indicated that both creativity and critical thinking encourage students to explore new ideas and solutions. The study concluded that teachers can enhance students' critical thinking abilities, as these abilities provide them with the basic skills to solve problems and make decisions and encourage them to deal with knowledge thoughtfully and engage in the educational process.

F. Studies on Critical Thinking in EFL Contexts

Critical thinking development has received a lot of attention in the field of English as a Foreign Language (EFL) instruction. Both researchers and educators acknowledge the importance of fostering critical thinking skills to help language

learners. This literature review explores previous studies on the utilization and implementation of critical thinking skills by English as a Foreign Language (EFL) learners, highlighting the importance of implementing such skills in education. These studies offer valuable insights into improving cognitive abilities and language proficiency through innovative pedagogies and classroom practices.

In her doctoral thesis, Haifa Abdullah Al-Nafie (2013) explored the importance of implementing critical thinking skills in teaching English as a foreign language. Despite claims that critical thinking is a Western concept and cannot be applied in non-Western contexts, many studies have proven the effectiveness of critical thinking in developing English learning in non-Western societies. The study focused on the application of higher order thinking skills (HOTS) and the effectiveness of classroom dialogue in English as a Foreign Language (EFL) classrooms.

Sèna and Etienne (2022) study revealed that developing critical thinking skills in EFL classes enhances communication, vocabulary expansion, and language usage in diverse contexts.

Wale and Bishaw's (2020) study examined the impact of inquiry-based learning on EFL students' critical thinking skills, particularly in writing argumentative essays. Results showed that inquiry-based instruction improved students' skills in interpretation, analysis, evaluation, inference, explanation, and self-regulation. The study emphasized the need for inquiry-based learning in language classrooms to develop students' critical thinking abilities and promote active, autonomous, and lifelong learning. It also highlighted the need for further research on the effects of inquiry-based learning on students' speaking, reading, and listening skills. It also emphasized the need for more investigation into how inquiry-based learning affects students' speaking, reading, and listening skills.

Yang and Gamble (2013) discussed the influence of incorporating critical thinking skills into teaching English as a foreign language (EFL). The study used theory-based learning activities to target language learning, academic achievement, and developing critical thinking skills. The results of the study revealed that there is a noticeable improvement in English proficiency and superior critical thinking skills among EFL learners.

Işıklı (2021) study also addressed the importance of integrating critical language teaching with critical perspectives, highlighting the challenges, risks, and practical implications of implementing such pedagogy in EFL classrooms.

In 2023, a study by Liu, Liu, and Hwang investigated the potential of peer assessment and automated writing assessment in enhancing critical thinking skills among English as a Foreign Language (EFL) learners. It emphasized the significance of integrating these teaching strategies to improve critical thinking skills in EFL writing.

Ratnadewi and Yunianti's (2019) study also investigated the influence of critical discourse analysis instruction on Indonesian students' critical thinking skills, providing insights into English language learners' utilization of these skills.

Renner's (1996) study highlights the importance of content-based teaching in enhancing language skills and fostering critical thinking. This approach impacts cognitive development and language proficiency, as critical thinking skills support higher-order learning abilities, such as analysis, evaluation, interpretation, and self-regulation, which in turn reinforce students' learning abilities that help them to improve their language competence.

Orhan and Tekin's (2022) study investigated the critical thinking abilities of high school students and explored the differences based on their gender, age, educational background, and grade level. Critical thinking skills test was used to collect data from 603 students.

Walee the effects of using and Bishaw's (2020) study aimed to examine based learning on the critical thinking skills of 20 English university -inquiry based education as a means of developing -students. The study proposed inquiry ng skills such as students' critical thinking skills, as it enhances original critical thinki .regulation-inference, interpretation, analysis, evaluation, and even self

oriented -Maliki's (2019) study investigated the impacts of learning-Al assessment on the critical thinking skills and English language competence of EFL The study asserted that developing critical thinking skills such as .students evaluation, interpretation, and inference can enhance vocabulary, communication, oriented assessment approach -and language use in a variety of contexts. The learning of critical thinking by offering continuous revision, feedback, encourages the growth

and reflection on learners' analytical abilities throughout their learning process. This is in line with the focus of the current study, which seeks to investigate the utilization of thinking skills by of critical adult Maliki's research findings offer -EFL learner. An oriented assessment -valuable insights into the possible benefits of utilizing learning practices to support the development of critical thinking among EFL students, which .tial objective of the current study is an essence Conklin's study offers a great level EFL -framework for examining critical thinking skills among university ,learners, focusing on analysis, active learning evaluation, and creativity which are .thinking key components of critical The present study can use Conklin's insights to conclusions on critical thinking skills powerful provide more impactful and .development in language high education

The study by Ghanizadeh and Mezaei (2012) explored the relationship regulation, critical thinking ability, and linguistic -learners' self-between EFL 1 achievement. Akcaoglu, MÖ ,Mor, E ,andK ülekçi, E. (2023) study also examined the role of metacognitive awareness in the relationship between critical thinking and .g EFL learners regulation among self The current study seeks to investigate EFL learners' utilization of critical thinking skills, building on their study's findings that examined specific critical thinking skills used in learning processes. This approach into the development and use of critical thinking skills across can provide insights various EFL learners demographics, offering valuable insights into the overall .achievement of EFL learners Critical thinking is an essential cognitive skill for language learning and academic success, especially for English as a Foreign Language (EFL) learners who engage with complex texts and solve problems. However, not enough studies have focused on EFL learners' utilization of critical thinking skills and how it affects their learning outcomes.

Consequently, the present study investigates the critical thinking skills of English as a Foreign Language (EFL) learners, focusing on the relationship between language proficiency and critical thinking abilities, the impact of learning strategies on critical thinking, and the effectiveness of educational methods in enhancing these skills. The study aims to address the practical implementation gap in critical thinking in an EFL context, helping teachers design teaching methods, inform curriculum designers, and enhance problem-solving, decision-making, and communication skills for professional and academic success.

G. Critical thinking in Higher Education in Turkey

Critical thinking is a highly desirable and essential skill in higher education. It is, in fact, a crucial aspect of 21st-century education, playing a vital role in life success in the information age (Huit, 1998). Since 2005, Turkey's constructive education program has emphasized critical thinking as a fundamental skill in higher education (Polat, 2015). In Turkey's higher education system, the promotion of critical thinking skills in English language instruction is emphasized to enhance language proficiency and cognitive development. Key aspects include incorporating activities and tasks that promote critical thinking, employing effective questioning techniques, engaging students in meaningful classroom discussions, and incorporating problem-based learning (Akinoglu and Baykin, 2015). Research has shown a growing interest in critical thinking, especially among female researchers.

Petik (2018) conducted a study that investigated the use of critical thinking skills among EFL learners in higher education in Turkey. The study examined the relationship between learning English as a foreign language (EFL) and critical thinking. Petik confirmed that there was a noticeable development in students' linguistic skills and perceptions of critical thinking, highlighting the significance of this relationship, which aligns with the current study objectives. However, the study concluded that there is a need for increased attention to applying critical thinking skills in academic contexts, especially in higher education, to improve language learning skills among EFL learners.

Muneeba Tahira and Haider (2019) study investigated the role of critical thinking in academic writing among non-Western students from diverse backgrounds. Through in-depth interviews, researchers explore students' struggles and perceptions regarding critical thinking. For example, students lack sufficient or necessary knowledge to write about a topic critically and have problems expressing arguments correctly while writing. Despite these obstacles and cultural differences in writing styles, students demonstrated a strong understanding of critical thinking skills. The study urged the significance of incorporating and implementing critical thinking skills in higher education, especially in terms of academic writing for English as a Foreign Language (EFL) students. The results provided valuable insights into improving academic writing skills among EFL students, with an

emphasis on the complexities of critical thinking.

The need for efficient studies on critical reading and writing for students at different levels is evident. There is a pressing need for more effective research on critical reading and writing for students of various educational levels (Polat, 2015). Creating a supportive and inclusive learning environment encourages students to take risks, explore diverse perspectives, and think critically about the English language, its cultural implications, and its connections to other disciplines. Assessment practices, such as performance-based assessments, portfolios, projects, and presentations, also play a significant role in promoting critical thinking skills. Technology integration, such as online resources, educational software, and digital tools, can support the development of critical thinking skills in English language learning (Kopp, 2017). The education system in Turkey is addressing the gap between traditional secondary school teaching methods and higher education methods by organizing workshops and courses to promote critical thinking skills among high school graduates, aiming to facilitate their transition into higher education. This approach offers both challenges and opportunities.

Turkey is integrating critical thinking into higher education through workshops for high school graduates, despite challenges from traditional teaching methods. Though courses related to critical thinking have been included in English language teaching curriculum, they still lack clear guidance. By guiding and supporting students and promoting intellectual collaboration, higher education institutions can contribute to enabling students to use critical thinking skills, leading to intellectual flourishing (Polat, 2015).

The development of critical thinking skills is crucial in EFL education, as it all academic enhances cognitive abilities, language proficiency, and over achievement. The studies reviewed provide valuable insights into effective pedagogies and classroom practices that foster these skills, emphasizing the need for continued research and innovative approaches in EFL contexts.

III. METHODOLOGY

A. Introduction

This chapter details the practical aspects of the research, including methodology, design, study setting, participants, research instrument, data collection procedure, and analysis.

B. Research design

A quantitative research design that involves measuring and analyzing numerical data was used in this study to identify patterns, relationships, and associations that exist as far as adult EFL students' use of critical thinking skills is concerned.

C. Setting of the study

The study was conducted at Istanbul Aydin University in Turkey, using both paper and electronic questionnaires to reach the maximum number of participating students.

D. Participants

The study investigated the utilization of critical thinking skills by adult EFL students, focusing on bachelor's and master's levels, using convenience sampling. Convenience sampling is a non-probability sampling method used in social sciences and education to select units (such as groups, individuals, or data points) based on their ease of access (Stratton, 2021). The participants consisted of 140 students (99 females and 41 males). The largest percentage of participants belonged to students between the ages of 20 and 25 years, 19 participants were between the ages of 25 and 30 years. Then there were the students whose ages range between 30 and 40. Students whose age ranged was between 35 and 40 composed 10% of the participants. As for those over forty years of age, their percentage reached 4.3%. The

number of bachelor's students participating in this study was 92, while the number of master's students was 48.

The following tables and graphs illustrates the above points more vividly.

Table 3.1. Distribution of the study sample according to its demographic variables (n=140)

Table 2. Distribution of the study sample according to gender

Gender		Frequency	Percent
Options	MALE	41.00	29.29
	Female	99.00	70.71
	Total	140.00	100.00

The below figure shows the participants' gender.

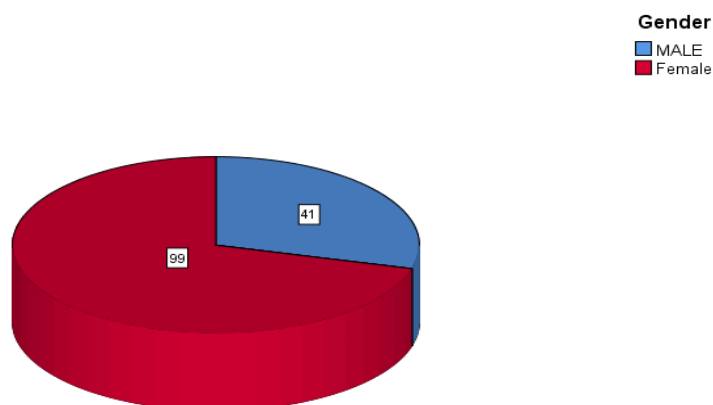


Figure 1. Participants gender

Table 3. Distribution of the study sample according to age.

Age Group		Frequency	Percent
Options	20-25	90.00	64.29
	25-30	19.00	13.57
	30-35	11.00	7.86
	35-40	14.00	10.00
	other	6.00	4.29
	Total	140.00	100.00

The following figure illustrates participants age graphically.

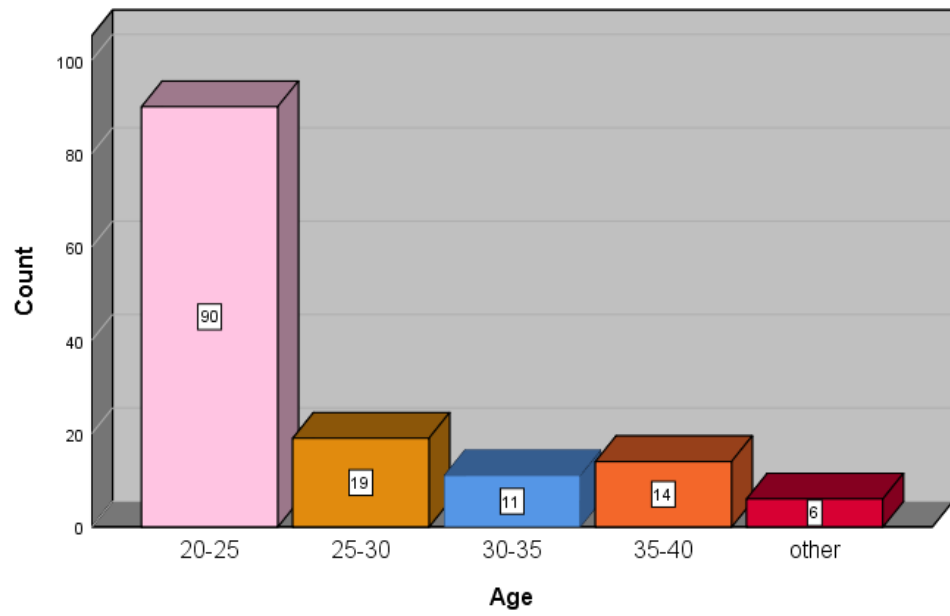


Figure 2. Participants' age

Table 4. Distribution of the study sample according to Academic degree

Academic degree		Frequency	Percent
Options	BA	92.00	65.71
	MA	48.00	34.29
	Total	140.00	100.00

Qualification
■ BA
■ MA

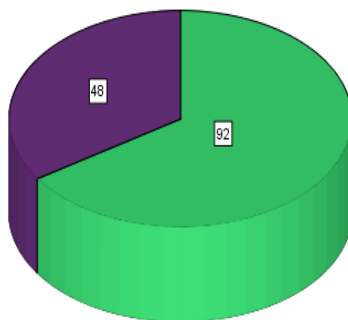


Figure 3. Participants' academic degree

E. Instrument

This study used an adapted version of a critical thinking ability questionnaire developed by Xuelian Li and Jianda Liu's study (2024). The original questionnaire adapted to evaluate the critical thinking skills of EFL students was modified to fit the context of adult EFL learners. Three dimensions of critical thinking were measured: consistency, analysis, and inference. The questionnaire examines logical coherence, evaluates EFL learners' ability to deconstruct complicated information, identify patterns, and assess their ability to draw conclusions. It consists of two sections, as shown in Table (3.4), with responses rated based on participants' critical thinking skills and abilities.

Table 5. The Main Sections of the Study Instruments

Section	Section Title	Number of items
Demographic Variables	Personal Information and Demographic Variables	3
A Critical Thinking Abilities (CTA) Questionnaire for adult EFL learners	Interpretation and inference skills Analysis and Explanation skills Evaluation skills Self-regulation skills	9 8 6 6

Description of the Study Scale and its Psychometric Properties:

The researcher employed an initial version of the scale and subsequently modified it to its final form, as presented in Appendix (1). The final scale consisted of 30 items, which offered five response choices: "(0%) Can do (20%) Can do (40%) Can do (60%) Can do (80%) Can do (100%) Can do" assigned values of 0, 1, 2, 3, 4, and 5, respectively, following a six-point Likert scale.

The validity and reliability:

The validity and reliability of the scale measuring the level of the utilization of Critical Thinking Abilities (CTA) Questionnaire for adult EFL learners were examined as follows:

First: Content Validity:

The content validity of the questionnaire was checked and approved by the thesis supervisor, who holds a PhD in teaching English as a foreign language. Though the questionnaire used was reported to be valid because it was to some extent, the researcher decided to determine its validity once more. What follows

provides a detailed description of the validation process.

Secondly: Internal Consistency

To verify the internal consistency of the measurement scale for the questionnaire, the correlation coefficients and one factor analysis between the dimensions of the independent variable and its main constructs were calculated.

Table 6. Factor analysis for every item of the questionnaire

Item number	Extraction	Item number	Extraction
	0.69		0.64
	0.66		0.65
	0.68		0.79
	0.60		0.69
	0.72		0.77
	0.65		0.64
	0.71		0.78
	0.64		0.77
	0.66		0.76
	0.63		0.70
	0.74		0.74
	0.72		0.70
	0.54		0.68
	0.68		0.65
	0.69		0.72

Table (6) displays the results of the one-factor analysis for each item in the questionnaire. The "Extraction" column represents the factor loading or the correlation coefficient between each item and the underlying factor being analyzed.

These factor loadings range from 0.54 to 0.79, indicating the strength of the relationship between each item and the factor. Factor loadings in social science and behavioral research are categorized into acceptable, strong, and close loadings, with values between 0.50-0.70 being considered strong and meaningful. Higher values suggest a stronger association between the item and the underlying construct being measured.

The factor loadings appear to be relatively high across the items, suggesting that they contribute significantly to the factors being analyzed. This indicates the coherence and consistency of the items in measuring the intended construct. Such analyses are crucial in validating the effectiveness and reliability of the questionnaire and in accurately assessing the targeted construct, thereby providing valuable insights for researchers and practitioners in understanding and interpreting the

collected data.

The following table presents the correlation coefficients between the dimensions of the independent variable and its main constructs for Critical Thinking Abilities (CTA) Questionnaire for adult EFL learners.

Table 7. Pearson correlation coefficients

Items	Options	Critical Thinking Abilities (CTA)
1. I can make inferences of writers' writing attitudes.	Pearson Correlation	.721**
	Sig. (2-tailed)	0.00
	N	140.00
2. I can make inferences of writers' writing intention.	Pearson Correlation	.654**
	Sig. (2-tailed)	0.00
	N	140.00
3. I can analyze the causal relationships in English passages.	Pearson Correlation	.600**
	Sig. (2-tailed)	0.00
	N	140.00
4. I can analyze cohesion and coherence in English passages.	Pearson Correlation	.633**
	Sig. (2-tailed)	0.00
	N	140.00
5. I can reflect on my own reasoning in English discussions.	Pearson Correlation	.715**
	Sig. (2-tailed)	0.00
	N	140.00
6. I can analyze supporting evidence in English arguments.	Pearson Correlation	.678**
	Sig. (2-tailed)	0.00
	N	132.00
7. I can analyze relationships between main ideas and supporting details.	Pearson Correlation	.657**
	Sig. (2-tailed)	0.00
	N	140.00
8. I can reflect on my premises in reasoning and correct it.	Pearson Correlation	.692**
	Sig. (2-tailed)	0.00
	N	140.00
9. I can judge whether language sources are current by the publication dates.	Pearson Correlation	.530**
	Sig. (2-tailed)	0.00
	N	140.00
10. I can analyze the time order in English narratives.	Pearson Correlation	.613**
	Sig. (2-tailed)	0.00
	N	140.00
11. I can comment on points of view and events in English.	Pearson Correlation	.759**
	Sig. (2-tailed)	0.00
	N	140.00
12. I can compare the differences of my country's traditional festivals and other countries.	Pearson Correlation	.467**
	Sig. (2-tailed)	0.00
	N	140.00
13. I can make inferences of English vocabulary.	Pearson Correlation	.718**
	Sig. (2-tailed)	0.00
	N	140.00
14. I can reflect on my own reasoning in writing/speaking.	Pearson Correlation	.714**
	Sig. (2-tailed)	0.00
	N	140.00
15. I can judge the authority of language sources by authors' expertise and publishers' fame.	Pearson Correlation	.685**
	Sig. (2-tailed)	0.00
	N	140.00
16. I can analyze the method of arguments.	Pearson Correlation	.675**
	Sig. (2-tailed)	0.00
	N	140.00

Table 7. (con) Pearson correlation coefficients

Items	Options	Critical Thinking Abilities (CTA)
17. I can express something with good organization.	Pearson Correlation	.774**
	Sig. (2-tailed)	0.00
	N	140.00
18. I can compare custom differences between my country and other countries.	Pearson Correlation	.512**
	Sig. (2-tailed)	0.00
	N	140.00
19. I can make counter-arguments in spoken and written English.	Pearson Correlation	.753**
	Sig. (2-tailed)	0.00
	N	140.00
20. I can reflect on my own reasoning in passage comprehension and correct it.	Pearson Correlation	.793**
	Sig. (2-tailed)	0.00
	N	140.00
21. I can judge the plausibility of arguments.	Pearson Correlation	.707**
	Sig. (2-tailed)	0.00
	N	140.00
22. I can compare custom differences between my country and other countries.	Pearson Correlation	.512**
	Sig. (2-tailed)	0.00
	N	140.00
23. I can make inferences of English sentences.	Pearson Correlation	.791**
	Sig. (2-tailed)	0.00
	N	140.00
24. I can make inferences based on clues within paragraphs.	Pearson Correlation	.792**
	Sig. (2-tailed)	0.00
	N	140.00
25. I can reflect on my own reasoning and correct it in English discussions.	Pearson Correlation	.831**
	Sig. (2-tailed)	0.00
	N	140.00
26. I can make inferences based on clues across paragraphs.	Pearson Correlation	.775**
	Sig. (2-tailed)	0.00
	N	140.00
27. I can judge the degree of relevance of intermediate conclusions to conclusions.	Pearson Correlation	.763**
	Sig. (2-tailed)	0.00
	N	140.00
28. I can judge whether English passages are logical.	Pearson Correlation	.732**
	Sig. (2-tailed)	0.00
	N	140.00
29. I can assess the credibility in relation to conflicting details.	Pearson Correlation	.685**
	Sig. (2-tailed)	0.00
	N	140.00
30. I can reflect on my own reasoning and correct it in writing or speaking.	Pearson Correlation	.755**
	Sig. (2-tailed)	0.00
	N	140.00

Table (7) presents the correlation coefficients between the dimensions of the independent variable and its main constructs in the Critical Thinking Abilities (CTA) Questionnaire for adult EFL learner. The Pearson correlation coefficients range from .467 to .831, indicating varying degrees of correlation between the questionnaire items and critical thinking abilities. All correlations are statistically significant at the 0.01 level (2-tailed), suggesting strong relationships between the items and the overall construct of critical thinking. The highest correlation is observed in item 25 ("I can reflect on my own reasoning and correct it in English discussions") with a

coefficient of .831, highlighting a strong link between self-reflection in reasoning and critical thinking. Other items with high correlations include item 20 (.793) and item 24 (.792), both related to inference making and reasoning. The lowest correlation is found in item 12 (.467), which involves comparing cultural differences, indicating a relatively weaker but still significant relationship. These correlations collectively support the questionnaire's effectiveness in measuring critical thinking abilities among EFL learners.

The instrument's reliability was calculated using Cronbach's alpha coefficient. To estimate the coefficient of consistency, the researcher used the Cronbach's alpha equation, calculating the reliability of the scale. The result for scaling items was 95.8%. The table below illustrates convergent reliability using Cronbach's alpha coefficient.

Table 8. Convergent Reliability

Reliability Statistics	
Cronbach's Alpha	N of Items
0,958	30

The research instrument adopted by Xuelian Li and Jianda Liu was originally developed by Facione (1992). It was an adaptation of the 2000 California Critical Thinking Skills Test (CCTST), a 34-item multiple-choice test designed to measure students' ability to interpret, analyze, evaluate, and reason. The CCTST was derived from a Delphi report and based on consensus scores among 46 experts. In addition, the interpretation of its scores is valid and supported by strong evidence (Facione et al., 1998). As a result, the CCTST was chosen as the most effective criterion-related validation tool in this field of research.

F. Data collection procedure

The study involves a critical thinking questionnaire administered online and in paper format, with clear instructions provided for consistent completion. The study utilized a 30-item questionnaire to gather data from 140 adult EFL student, focusing on their utilization of critical thinking skills. The questionnaire aimed to assess students' self-perceived proficiency in critical thinking skills such as interpretation, analysis, evaluation, inference, explanation, and self-regulation. The questionnaire

employed a 6-point Likert scale ranging from "0" to "5". The numerical value (0) indicates that the student definitely cannot do the critical thinking skill, while (5) means the student definitely can do it.

G. Data analysis

The data was analyzed using the Statistical Package for the Social Sciences (SPSS), a widely-used tool for statistical analysis, visualization, and data management. The responses were entered into SPSS version (26) for statistical analysis. Descriptive statistics were generated to assess students' utilization of critical thinking skills. The following statistical methods were used to analyze the data:

- 1) Descriptive statistics: Such as frequencies, percentages, means, and standard deviations.
- 2) Internal consistency measurement (Cronbach's alpha).
- 3) Pearson correlation coefficient was also utilized to explore the relationship between the variables.

H. Ethical Considerations

Participants were informed about the study's purpose and rights; their consent was obtained before data collection; and they were assured about the confidentiality of the data and their anonymity. Ethical considerations were taken into account in collecting the data.

IV. RESULTS AND DISCUSSION

A. Introduction

This chapter provides a description and analysis of the results obtained from the study sample. The questionnaire provided comprehensive quantitative data on participants' utilization of critical thinking skills, revealing their strengths and weaknesses in specific areas. To facilitate interpretation of the findings, the study relied on percentages. Below are the results related to the main research question.

B. Findings from the questionnaire:

1. Results related to the main research question:

1. To what extent do adult EFL learners utilize and implement critical thinking skills in their English courses?

The study used a six-point Likert questionnaire to assess students' critical thinking skills utilization, calculating means, standard deviations, and percentages for various domains. To interpret the results, the level of students' utilization of critical thinking skills was assessed using the following specific criteria.

Table 9. Scoring Key (Correction Key)

Mean (Less than 1.8)	Degree (criteria) Very Low
(1.8 - 2.59)	Low
(2.6 - 3.39)	Moderate
(3.4 - 4.19)	High
(4.2 and above)	Very High

First: Interpretation and inference skills

Interpretation is the process of understanding the meaning, implications, or significance of information or situations. It involves making sense of the provided information, while inference is the process of drawing conclusions based on prior knowledge or available evidence. Critical thinking involves interpretation and inference, with interpretation serving as a foundation for inferences and inferences

building on it. The quality of interpretations directly influences inference validity, and mastering both skills is crucial for effective analysis, as flawed interpretations can lead to faulty inferences. The following table displays the means, standard deviations, and percentages for interpretation and inference skills in descending order.

Table 10. Interpretation and inference skills

Items	Mean	Std. Deviation	percentage	Degree
I can compare the differences of my country's traditional festivals and other countries.	4.41	0.88	88%	Very High
I can compare custom differences between my country and other countries.	4.29	0.91	86%	Very High
I can compare custom differences between my country and other countries.	4.25	0.95	85%	Very High
11. I can comment on points of view and events in English.	4.17	1.02	83%	High
I can make inferences of English sentences.	4.15	0.96	83%	High
I can make inferences of English vocabulary.	4.02	1.05	80%	High
I can make inferences based on clues across paragraphs.	3.96	1.06	79%	High
1. I can make inferences of writers' writing attitudes.	3.51	1.16	70%	High
Total mean	4.04	1.02	81%	High

The above table provides an insightful analysis of the interpretation and inference skills among participants, displaying the means in descending order. The results reveal that participants rated their ability to compare cultural differences exceptionally high, with items related to comparing traditional festivals and customs between countries receiving mean scores of 4.41, 4.29, and 4.25, respectively, all classified as very high. This suggests a strong confidence in understanding and analyzing cultural contexts. Commenting on points of view and events in English also was scored highly, with a mean of 4.17, indicating participants feel adept in engaging with and interpreting various perspectives. This finding is in line with the findings of a study by Din et al. (2021), who investigated students' attitudes toward interpretation, a critical thinking skill, concluded that students showed positive attitudes toward utilizing interpretation skills.

Skills related to making inferences from English sentences and vocabulary, as well as from clues across paragraphs, were also rated highly, though slightly lower, with means ranging from 4.15 to 3.96. Interestingly, the ability to infer writers' intentions and attitudes had the lowest scores, with means of 3.59 and 3.51, suggesting these areas might be more challenging for the participants. Overall, the total mean score of 4.04, corresponding to 81%, indicates a high level of self-assessed proficiency in interpretation and inference skills among the adult EFL learners, highlighting their confidence and capability in these critical thinking areas.

In summary, the participants showed remarkable abilities in interpreting and making comparisons related to cultural differences, as well as in interpreting and engaging with various viewpoints. They also demonstrated excellent inference skills, especially in working with vocabulary, sentences, and textual clues. However, they appeared to find inferring writers' attitudes and intentions more challenging. These results reveal that EFL learners' strengths exhibit exceptional abilities in critical thinking skills related to interpretation and inference, which are crucial for language proficiency and academic success. The findings of students' inference skills are in line with Muslem et al.'s (2017) study that investigated the frequency of utilizing critical thinking skills in reading among 100 university students. The study findings indicated that the most frequently utilized critical thinking skill was inference, with 54% of students using this skill in reading comprehension, which was followed by interpretation, analysis, explanation, evaluation, and self-regulation.

The figure below summarizes the above mentioned points graphically.

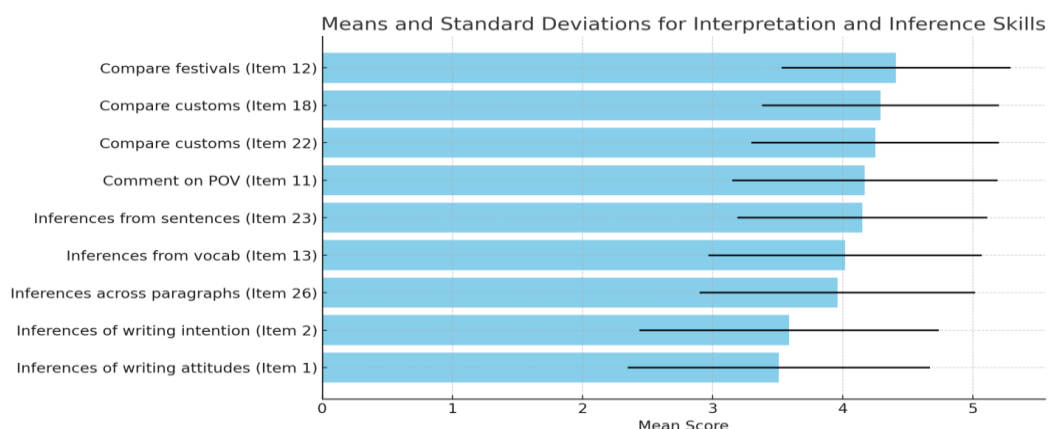


Figure 4. Interpretation and inference skills' mean scores

Second: Analysis and Explanation skills

Analyzing involves breaking down complex ideas into their parts, identifying patterns, relationships, and underlying structures. This process is used in literature, scientific papers, historical events, and artworks to understand arguments and themes. Explanation involves articulating ideas, justifying opinions, and providing well-structured explanations, such as an EFL student explaining a scientific concept. Both analysis and explanation are crucial skills in English language learning. They require in-depth understanding "comprehension" of linguistic materials and information, requiring the ability to analyze, connect elements, and infer. Mastery of both skills enhances critical thinking capabilities, making them complementary and interrelated in building students' English language learning skills.

The following table displays the means in descending order, and standard deviations, and percentages for Analysis and Explanation skills .

Table 11. Analysis and Explanation skills

Items	Mean	Std. Deviation	Percentages	Degree
7. I can analyze relationships between main ideas and supporting details.	4.15	0.94	83%	High
6. I can analyze supporting evidence in English arguments.	4.11	0.93	82%	High
10. I can analyze the time order in English narratives.	4.08	1.04	82%	High
I can analyze the causal relationships in English passages.	3.96	1.03	79%	High
17. I can express something with good organization.	3.88	1.04	78%	High
I can make counter-arguments in spoken and written English.	3.86	1.12	77%	High
4. I can analyze cohesion and coherence in English passages.	3.72	1.16	74%	High
16. I can analyze the method of arguments.	3.42	1.13	68%	High
Total mean	3.90	1.05	78%	High

Based on the data provided in Table (11), the results demonstrated high proficiency regarding the learners utilization of analysis and explanation skills. The highest mean score of 4.15 was for analyzing relationships between main ideas and supporting details, with 83% of the participants rating their ability as high. Other skills such as analyzing causal relationships, organizing thoughts, and making counter-arguments had slightly lower but still high mean scores ranging from 3.96 to

3.86. The abilities to analyze cohesion and coherence in English passages and the method of arguments had the lowest mean scores of 3.72 and 3.42, respectively, but were still rated as high by the participants. This indicates that EFL learners have difficulty with analyzing cohesion and coherence in English passages and the method of arguments, despite their being rated as "high" by the participants. These skills require a deeper understanding of the rhetorical, logical, and organizational structures of English. Mastering higher-order analysis skills requires practice and time, requiring targeted instruction and support to enhance text organization, communicative competence, and reading comprehension. In support of the findings of the present studies, both Renner (1996) and Conklins' (2012) studies revealed that students' higher-order thinking abilities, such as analysis, assessment, and production, enhance their learning abilities, leading to improved language competence.

The overall total mean score for analysis and explanation skills was 3.90, with a standard deviation of 1.05, corresponding to a 78% high rating. This suggests that EFL learners generally feel confident in their analysis and explanation skills, especially in identifying main ideas, understanding narrative structures, analyzing arguments, though there is some variability in their self-assessed abilities across different aspects of these skills.

The results reflect students' strengths in using both analysis and explanation skills, which are necessary to efficient language utilization, critical thinking development, and academic achievement.

The following figure illustrates the above points graphically.

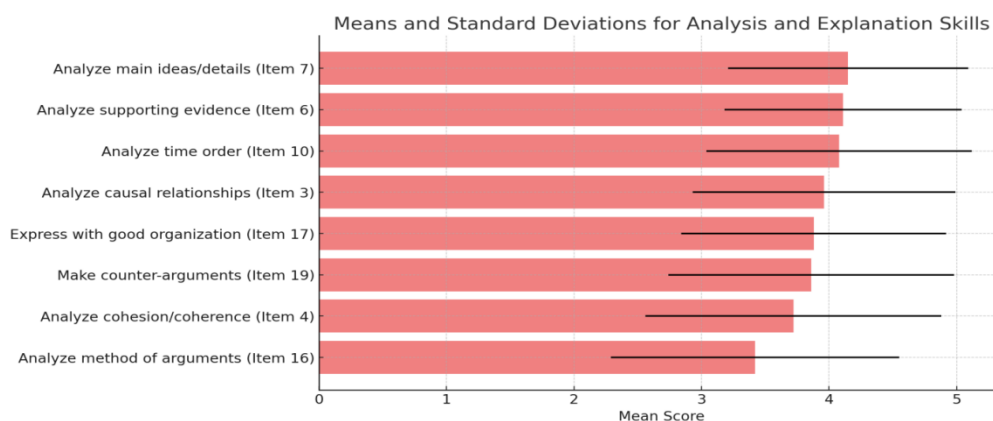


Figure 5. Analysis and explanation skills' mean scores

Third: Evaluation skill

EFL learners critically assess evidence, arguments, and claims, determining validity, reliability, and relevance, considering sources' strength, biases, and credibility, such as checking author credentials and supporting data.

The following table displays the means in descending order, standard deviations, and percentages for evaluation skill.

Table 12. Evaluation skill

Items	Mean	Std. Deviation	percentages	Degree
28. I can judge whether English passages are logical.	4.21	0.91	84%	Very High
29. I can assess credibility in relation to conflicting details.	3.69	1.09	74%	High
21. I can judge the plausibility of arguments.	3.61	0.99	72%	High
27. I can judge the degree of relevance of intermediate conclusions to conclusions.	3.59	1.13	72%	High
9. I can judge whether language sources are current by the publication date.	3.49	1.34	70%	High
15. I can judge the authority of language sources by authors' expertise and publishers' fame.	3.28	1.18	66%	Moderate
Total mean	3.65	1.11	73%	High

As shown in the above table, the highest mean score of 4.21 is for the item "I can judge whether English passages are logical," with 84% of participants rating their ability as very high. This suggests a strong confidence in evaluating the logical structure of passages. The next highest score is 3.69 for the item "I can assess credibility in relation to conflicting details," indicating a 74% high rating.

The items related to judging the plausibility of arguments, relevance of intermediate conclusions, and currency of language sources have slightly lower mean scores, ranging from 3.61 to 3.49, but still fall within the high rating category, reflecting a good level of confidence in these evaluation skills. The item "I can judge the authority of language sources by authors' expertise and publishers' fame" has the lowest mean score of 3.28, indicating a moderate rating with 66% of participants feeling confident in this area. This implies that participants may require additional support or instruction to enhance their ability to critically evaluate the legitimacy and authority of language sources, a crucial skill for effective communication and academic success. Despite their high ability in analysis and explanation skills, only two-thirds of the students feel confident in evaluating the trustworthiness of language

sources, indicating a need for improvement in their overall critical thinking and evaluation skills related to the use of English language.

Overall, the total mean score for evaluation skills is 3.65, with a standard deviation of 1.11, corresponding to a 73% high rating. This suggests that participants generally feel confident in their evaluation skills, although there is more variability in their abilities compared to other critical thinking skills.

The graphic below summarizes the points mentioned above.

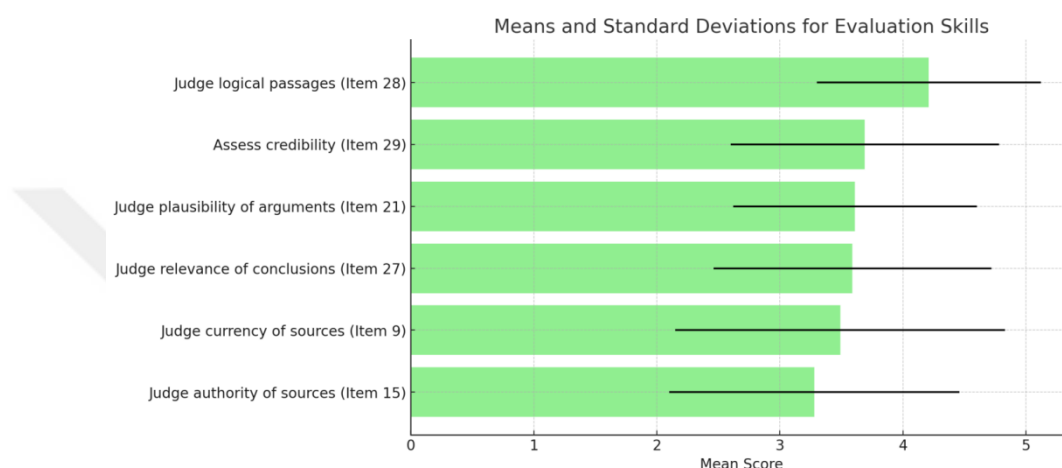


Figure 6. Evaluation skill's mean score

Last: Self-regulation skill

The table below displays the means and standard deviations for self-regulation skill in descending order.

Table 13. Self-regulation skill

Items	Mean	Std. Deviation	%	Degree
30. I can reflect on my own reasoning and correct it in writing or speaking.	4.18	1.00	84%	High
14. I can reflect on my own reasoning in writing/speaking.	4.16	0.97	83%	High
25. I can reflect on my own reasoning and correct it in English discussions.	4.00	1.11	80%	High
20. I can reflect on my own reasoning in passage comprehension and correct it.	3.99	0.99	80%	High
5. I can reflect on my own reasoning in English discussions.	3.96	1.11	79%	High
8. I can reflect on my premises in reasoning and correct them.	3.76	1.00	75%	High
Total mean	4.01	1.03	80%	High

Table (13) presents descending means, percentages, and standard deviation for self-regulation skills, along with percentages and degrees. It is evident that the

individual surveyed exhibit a high level of self-regulation across various tasks related to reflective reasoning and correction. The means range from 3.76 to 4.18, indicating consistently strong abilities in these areas. The standard deviations, while slightly variable, still suggest a relatively tight distribution of responses.

Moreover, the percentages of high scores, ranging from 75% to 84%, underscore the robustness of these skills within the sample. This suggests that the majority of respondents demonstrate adeptness in reflecting on their own reasoning and making corrections, whether in writing, speaking, or discussions in English. Supporting the results of self-regulation skills, as far as the present study is concerned, Ghanizadeh and Mirzaee (2012) conducted a study on 82 EFL university learners and noticed that self-regulation may predict around 53% of their language achievement. This suggests that EFL learners who are more motivated metacognitively and behaviorally engaged in their own learning tend to accomplish higher levels in their language studies. Additionally, the study showed that the most positively correlated aspects of self-regulation are self-efficacy and self-monitoring, which also serve as positive indicators of critical thinking skills. The study also found a significant correlation between EFL students' critical thinking skills and their academic success. The study concluded that the development of critical thinking skills in English as a Foreign Language (EFL) is strongly linked to academic success and improved language proficiency. The Pearson correlation coefficient was used to assess the relationship between numerical variables.

Table 14. Person correlations for the relationship between numerical variables

Correlations		Total	Interpretation and inference skills	Analysis Explanation skill	Evaluation	Self-regulation skill
Total	Pearson Correlation	1	.913**	.929**	.887**	.925**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	140	140	140	140	140
Interpretation and inference skills	Pearson Correlation	.913**	1	.799**	.743**	.805**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	140	140	140	140	140
Analysis Explanation skill	Pearson Correlation	.929**	.799**	1	.762**	.833**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	140	140	140	140	140

Table 14.(con) Person correlations for the relationship between numerical variables

Correlations		Total	Interpretation and inference skills	Analysis Explanation skill	Evaluation	Self- regulation skill
Evaluation	Pearson	.887**	.743**	.762**	1	.758**
	Correlation					
	Sig. (2-tailed)	.000	.000	.000		.000
	N	140	140	140	140	140
Self-regulation skill	Pearson	.925**	.805**	.833**	.758**	1
	Correlation					
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	140	140	140	140	140

** . Correlation is significant at the 0.01 level (2-tailed).

The above table presents a matrix of correlations between different skills, such as interpretation, explanation, inference, analysis, evaluation, and self-regulation skills.

The Pearson correlation coefficients, which range from -1 to 1, indicate the direction (negative or positive) and strength (how close the variables are to each other) of the relationship between two or more variables. High correlation coefficients suggest that individuals who are good in one skill are likely to be good in other related skills. The correlation coefficients in this case are exceptionally high, ranging from 0.743 to 0.929, indicating a strong positive relationship between these skills. A coefficient of 0.743 indicates a robust positive correlation, whereas a coefficient of 0.929 indicates an extremely strong positive correlation, close to the ideal value of 1.0. This shows that individuals who are skilled in one particular area are likely good at other related areas. The statistical significance at the 0.01 level implies that these relationships are not likely to be coincidental, revealing a consistent, strong pattern that indicates critical thinking skills are closely linked.

To sum up everything that has been stated so far, the data presented in table (4.6) reveals a strong positive relationship between critical thinking skills: interpretation, inference, explanation, analysis, evaluation, and self-regulation. Adult EFL learners who demonstrated proficiency in one skill were likely to excel in the other related skill, indicating a robust association between critical thinking abilities and overall cognitive abilities.

The analysis findings of the quantitative data in this study showed that adult EFL learners possess exceptional critical thinking skills, which is similar to the

findings of previous studies (Al-Maliki, 2019; Ghanizadeh and Mizae, 2012; Hamdi, 2023; Wale and Bishaw 2020), which generally concluded that students across various levels possess either high critical thinking skills.

C. Answering research questions:

1. To what extent do adult EFL learners implement critical thinking skills in their English courses?

The findings of the study reveal that adult EFL learners show exceptional critical thinking abilities across several academic areas. The learners demonstrated remarkable abilities in interpreting and comparing cultural differences, engaging with diverse perspectives, and demonstrating strong inference skills, especially in vocabulary, sentence, and textual clues.

This is in line with the study by Al-Maliki (2019), which highlights the importance of developing critical thinking skills, including interpretation and inference, in improving vocabulary, communication, and language use. His study aimed to understand how the university's EFL students utilize these skills, providing insights into their language learning and critical thinking development. They also demonstrated strong analytical skills, including understanding relationships between ideas, supporting evidence and details, and text structure. However, they lacked the ability to analyze more nuanced areas of language and argumentation, despite their overall high abilities. This aligns with the study results of Wale and Bishaw's (2020), including asking questions, making based instruction, in-which concluded that inquiry counterarguments, understanding relationships between ideas, supporting evidence, analyzing details, and text structure, improved EFL learners abilities in analyzing students' analysis and subtle aspects of argumentation and language and improved .explanation skills The participants displayed a high proficiency of 82% in evaluation skill, with confidence in evaluating English texts' purpose, credibility, and argument clarity. They also revealed a high self-evaluation of their English learning progress. Accordingly, the findings of Orhan and Tekin's (2022) study confirmed the significance of information evaluation in critical thinking skills, highlighting its crucial role in success in various life aspects, including academic performance. As -for the last critical thinking skill, the participants showed a high level of self regulation in various tasks related to reflective thinking and correction in the English

.language In a similar vein, Ghanizadeh (2011) found that critical thinking skills enhance EFL teachers' self-regulation over time. The study revealed that interpretation and evaluation skills have the highest correlation with teachers' self-regulation. This is also true for EFL learners, based on Ghanizadeh and Mizae (2012). Findings of both previous studies indicated that promoting critical thinking positively influences EFL learners self-regulation, and the more they develop these skills, the more self-regulated they will be throughout their learning journey. This suggests that promoting critical thinking skills can positively impact EFL teachers and learners. Besides, the results of the current study indicated that students have the .ability to monitor and regulate their thinking and performance processes They .trong metacognitive awareness when dealing with the English languagepossess s Cultivating awareness of critical thinking can enhance EFL learners' academic performance, language proficiency, and intellectual development, thus achieving success in their studies.confirmation of this, the In studyShahani et al. results of (2022)) concluded the importance of critical linguistic awareness (CLA) in foreign English classrooms for a socially informed learning experience, with participants showing a positive attitude towards incorporating CLA. The findings of the study conducted by Benisaid and Huang (2015) also report that self-regulation skills, including metacognitive awareness, are crucial for the development of language learning. In addition, the study results confirmed that possessing self-regulation skills can enhance language learning outcomes by promoting metacognitive awareness and effective learning methods. The study highlighted the importance of self-regulation in language acquisition, and this was evident from the participants' ability to manage their own learning processes, especially in tasks that require critical thinking.

All in all, the study results revealed that adult EFL learner are excelling in critical thinking skills, including interpretation, inference, evaluation, self-regulation, explanation, and analysis skills. It indicates that learners are effectively incorporating critical thinking skills into their English courses, which could significantly enhance their language and academic development in English as a foreign language. This is in line with Petek's (2018) study, which concluded that implementing critical thinking skills improves language learning and leads to academic success, particularly in higher education.

2. Which critical thinking skills are used more by adult EFL learners?

To answer the second research question, the study indicated that learners of English as a foreign language show superior proficiency in some critical thinking study, the following skills Based on the results of the .skills compared to other skills .were divided from the highest level of use among students to the lowest

1. :Interpretation and Inference Skills

Participants exhibited a high level of competence in i nterpretation and inference abilities with a total score of 81% and a total mean of 4.4. The participants showed high abilities in interpreting and comparing cultural differences, engaging with diverse perspectives, and demonstrating proficiency in inference skill, .textual clues especially in working with sentences, vocabulary, and

2. Self regulation:

regulation abilities, metacognitiv-The learners showed excellent self awareness and the ability to monitor and regulate their thoughts and performance .when using the English language Similarly, this is consistent with Akcaoğlu et al. (2023) study, which found that learners demonstrated strong self-regulation and metacognitive awareness skills in English, with metacognitive awareness acting as a mediator between self-regulation and critical thinking. The study conducted by Ratnadewi and Yunianti's (2019) reached mixed findings, of which some parts contradict and some confirm the findings of the present study. For instance, contrary to the present study findings, their study found that 75% of the participants were at an emergent level in self-regulation skills due to their lack of experience in monitoring their own analysis. While, the findings of the present study are aligned with those of their study in that 58.3% of the participants achieved a proficient level in critical thinking skills, including communication, analysis, and synthesis.

3. Analysis and Explanation Skills:

The students demonstrated strong analysis and explanation skills, including understanding relationships between ideas, supporting evidence, analyzing details, and text structure, but their abilities in analyzing subtle aspects of argumentation and language were relatively lower, yet still high. The results reflect students strengths in using both skills, with a total mean of 3.9, corresponding to 78% high rating.

4. Evaluation skills:

Participants exhibited a high level of competence in evaluation abilities with a total score of 73%. They demonstrated exceptional proficiency in evaluating the . as clarity of their purpose, usefulness, credibility, and logic of English texts, as well .English arguments. Participants may require instructions to develop their ability to critically evaluate the authority and legitimacy of language sources.

According to the study findings, students' English language competence and critical thinking development within the context of adult EFL could be enhanced by designing curricula and teaching methods based on an awareness of students' critical thinking skills. Renner (1996) asserts in his study that critical thinking skills tend to support higher-order learning abilities, which enhances language competence levels. The present study's findings are attributed to the university domain, where educationalists generally agree that developing critical thinking skills is a crucial aspect of higher education's agenda. Higher education scholars argue that critical thinking is a standard of intellectual excellence necessary for students' active participation in individual, social, and academic life (Scriven and Paul, 2004). Essentially, the findings of this study provide implications and insights for EFL teachers, administrators, and teachers and for identifying effective methods for EFL students to develop their critical thinking skills. These findings of the current study suggest a good structure for future research to enhance critical thinking skills.

V. CONCLUSION

A. Introduction

This chapter summarizes the study's main findings, identifies its strengths, highlights limitations, and proposes suggestions for future research.

B. Summary of the key findings:

This study sought to investigate the utilization of critical thinking skills by adult EFL learners. The focus was on verifying the extent to which students used the following critical thinking skills: interpretation, inference, analysis, explanation, evaluation, and self-regulation. The study's main questions were:

1. To what extent do adult EFL learners implement critical thinking skills in their English courses?
2. Which critical thinking skills are used more by adult EFL learners?

The study used a 30-item critical thinking questionnaire to assess 140 adult EFL students' proficiency in various critical thinking skills. The questionnaire used a 6-point Likert scale, with a numerical value indicating a student's ability or inability to perform the skill. The study used SPSS for data analysis, generating descriptive statistics to assess students' critical thinking skills. Methods included frequencies, percentages, means, and standard deviations, internal consistency measurement, and Pearson correlation coefficient. Ethical considerations were taken into account, by making the participants informed about the study's purpose, their rights, consent, and data confidentiality.

C. Overview of the study's descriptive analysis results

The study's descriptive analysis revealed significant insights about students current level of competency in utilizing critical thinking skills.

The results revealed that EFL learners exhibit exceptional critical thinking

skills in interpretation and inference, crucial for language proficiency and academic success. They excel in comparing cultural differences and engaging with various viewpoints, but struggle with inferring writers' attitudes and intentions. The study also found high proficiency in analysis and explanation skills among EFL learners. The highest mean score was for analyzing relationships between main ideas and supporting details. Other skills like causal relationships, organizing thoughts, and counter-arguments had slightly lower scores. However, EFL learners struggled with analyzing cohesion and coherence in English passages and the method of arguments. Mastering these skills seem to require practice, time, and targeted instruction to enhance text organization, communicative competence, and reading comprehension.

Furthermore, the participants showed high confidence in evaluating passages' logic and credibility, ranking their proficiency in these areas highly. However, their confidence in evaluating the expertise and authority of language publishers and sources was slightly lower, with only two-thirds feeling proficient in this skill. Their evaluation skills were high, but their critical thinking skills showed more variability. They understand this skill well but need more guidance to become more proficient in evaluating sources critically.

Moreover, The study indicated that EFL learners exhibit strong self-regulation skills in correction tasks and reflective reasoning. These skills, particularly in reflective reasoning and correcting errors, significantly contribute to their academic performance and language proficiency. The high mean scores, restricted response distribution, and substantial percentages of top scores highlight the importance of these skills in the sample, positively impacting the participants' academic success, language proficiency, communication abilities, and critical thinking skills.

D. Summary of correlation analysis findings

The correlation coefficient results were exceptionally high, ranging from 0.743 to 0.929. Based on that, the study found a strong positive correlation between the six critical thinking skills: interpretation, inference, explanation, analysis, evaluation, and self-regulation. It revealed a consistent and strong pattern indicating that critical thinking skills are closely linked to each other.

E. Pedagogical Implications

The study's conclusions have significant pedagogical implications to enhance the development of critical thinking skills in EFL classes. The results of the study imply that instructors should prioritize meta-cognitive strategies that help students to observe, evaluate, and modify their way of thinking. The meta-cognitive strategies could involve regular self-reflection exercises, think-aloud activities, and explicit instruction on planning, monitoring, and revising one's method of learning complex tasks. Additionally, the disparity between learners' strong interpretation abilities and moderate skills in evaluating source credibility highlights the need for customized educational interventions. It could be necessary for educators to dedicate more time to developing evaluation abilities such as evaluating the reliability of sources of information, evaluating the quality of the evidence, supporting claims, and reviewing author credentials. Educators can enhance the critical thinking skills set of EFL learners by addressing weaker competencies and promoting a comprehensive approach to achieve academic success.

F. limitations of the study

Although this study offers valuable insights into the critical thinking skills profiles of adult EFL learners studying, it also acknowledges several limitations. First, the quantitative research design limits our capacity to derive causal inferences about how students' critical thinking skills were developed over time. Second, a comprehensive longitudinal study would provide a comprehensive understanding of the evolution of students' language learning competencies over their course of study. The study found high proficiency in interpretation, inference, analysis, explanation, evaluation, and self-regulation skills among the participants, yet pointed out areas for required improvement, such as inferring the intentions and attitudes of writers, which, in turn, suggests further investigation. Third, the study's only source of data was self-reported information from the Critical Thinking Abilities Test (CTAT). Future studies should include more objective evaluations, such as think-aloud techniques or performance-based activities, to corroborate the self-reported results. Forth, although the 140 learners in the sample size provide a sufficient foundation for analysis, the generalizability of the study's findings could be enhanced by including a more diverse and larger sample of EFL learners in various university settings in

Turkey. It may be possible to identify important influencing elements, such as institutional support or curriculum variations for the development of critical thinking, by expanding the context of research beyond a single educational institution. Finally, qualitative inquiry methods like focus interviews or group discussions can enhance the understanding of learners' experiences and perspectives in developing critical thinking skills. Researchers can enhance critical thinking knowledge among EFL learners in Turkish higher education by addressing existing findings in subsequent research.



VI. REFERENCES

BOOKS

- AKCAOĞLU, M. Z., MOR, E., & KÜLEKÇİ, E. (2023). The mediating role of metacognitive awareness in the relationship between critical thinking and self-regulation. **Thinking Skills and Creativity**, 47, 101187. <https://doi.org/10.1016/j.tsc.2022.101187>
- BAER, J. (2014). *Creativity and Divergent Thinking: A Task-Specific Approach*. **Psychology Press**.
- BLOOM, B. S. (1956). *Taxonomy of educational objectives: The classification of educational goals*. **David McKay**.
- Diestler, S. (2019). *Becoming a critical thinker: a user-friendly manual*. **Pearson**.
- FISHER, D., & FREY, N. (2014). *Close reading and writing from sources*. **International Reading Association**.
- HALPERN, D. F. (2003). *Thought & Knowledge: An Introduction to Critical Thinking (4th Ed.)*. **Laurance Erlbaum Associates Publishers**.
- HALPERN, D. F. (2014). *Critical Thinking across the Curriculum*. **Routledge**.
- LIPMAN, M. (1991). *Thinking in education*. **Cambridge University Press**.
- SEN, M. (2010). *An introduction to critical thinking*. **Pearson Education**.

ARTICLES

- AKİNOĞLU, O., & BAYKIN, Y. (2015). Raising Critical Thinkers: Critical Thinking Skills in Secondary Social Studies Curricula in Turkey. **The Anthropologist**, 20(3), 616–624. <https://doi.org/10.1080/09720073.2015.11891765>
- ALMALIKI, M. S. (2019). Learning-Oriented Assessment, Critical Thinking and English Language Speaking Skills: Exploratory Study of Saudi EFL

Learners. **International Journal of English Language Education**, 7(1), 37. <https://doi.org/10.5296/ijele.v7i1.14528>

ATKINSON, D. (1997). A Critical Approach to Critical Thinking in TESOL. **TESOL Quarterly**, 31(1), 71. <https://doi.org/10.2307/3587975>

DIN, N. D. M., HUSSAIN, N. D. R., & TAHIR, N. S. (2021). The Effect of EFL Learners' Critical Thinking on their Skill of Interpreting Information as Reflected in their Writing. **Sir Syed Journal of Education & Social Research**, 4(1), 24–36. [https://doi.org/10.36902/sjesr-vol4-iss1-2021\(24-36\)](https://doi.org/10.36902/sjesr-vol4-iss1-2021(24-36))

ENNIS, R. H. (1996). Critical Thinking Dispositions: Their Nature and Assessability. **Informal Logic**, 18(2). <https://doi.org/10.22329/il.v18i2.2378>

GRATTON, C. (2004). Lipman's Thinking in Education. **Informal Logic**, 24(1). <https://doi.org/10.22329/il.v24i1.2134>

IŞIKLI, C. (2021). İngilizce öğretiminde eleştirel yaklaşım: Öğrencilerde eleştirel düşünmeyi geliştirmek. **RumeliDE Dil Ve Edebiyat Araştırmaları Dergisi**, Ö9, 364–373. <https://doi.org/10.29000/rumelide.984809>

MARIN, L. M., & HALPERN, D. F. (2011). Pedagogy for developing critical thinking in adolescents: Explicit instruction produces greatest gains. **Thinking Skills and Creativity**, 6(1), 1–13. <https://doi.org/10.1016/j.tsc.2010.08.002>

USTA, M. (2019). Examination of reading-understanding levels and critical thinking skills of primary school teachers and primary school 4th grade students [Unpublished master's thesis]. Necmettin Erbakan University.

WEBSITES

ALNOFAIE, H. A. (2013). The implementation of critical thinking as EFL pedagogy: challenges and opportunities. Retrieved from <https://theses.ncl.ac.uk/jspui/bitstream/10443/2326/1/Al-nofaie%2013.pdf>

CONKLIN, W. (2012). Strategies for developing higher-order thinking skills. Huntington Beach (CA): **Shell Education**.

WHITING, K. (2020). What are the top 10 job skills for the future. Retrieved from <https://www.weforum.org/agenda/2020/10/top-10-work-skills-of-tomorrow-how-long-it-takes-to-learn-them/>



APPENDICES

Critical Thinking Abilities Critical Thinking Abilities Questionnaire for adult EFL learners

Dear Participant,

Thank you for participating in this study. This questionnaire intends to investigate your critical thinking abilities as EFL learners. The questionnaire will explore the cognitive skills and sub-skills required for critical thinking, including interpretation, analysis, evaluation, inference, explanation, and self-regulation. Please complete it as carefully as possible based on your personal knowledge and experience. In fact, there are no right or wrong answers. Your valuable insights will contribute to a better understanding of this area of research. The numerical value (0) means you definitely cannot do the critical thinking skill, while (5) means you definitely can do it.

If you have any questions or concerns about this study, please do not hesitate to contact us at

Sincerely, Sabah M. F. Abuzaqqa

Section I. Demographic Information:

Gender: MALE FEMALE

Age: 20-25 25-30 30-35 35-40 other

Qualification: BA MA

1. Section II. A CTA Questionnaire for adult EFL learners

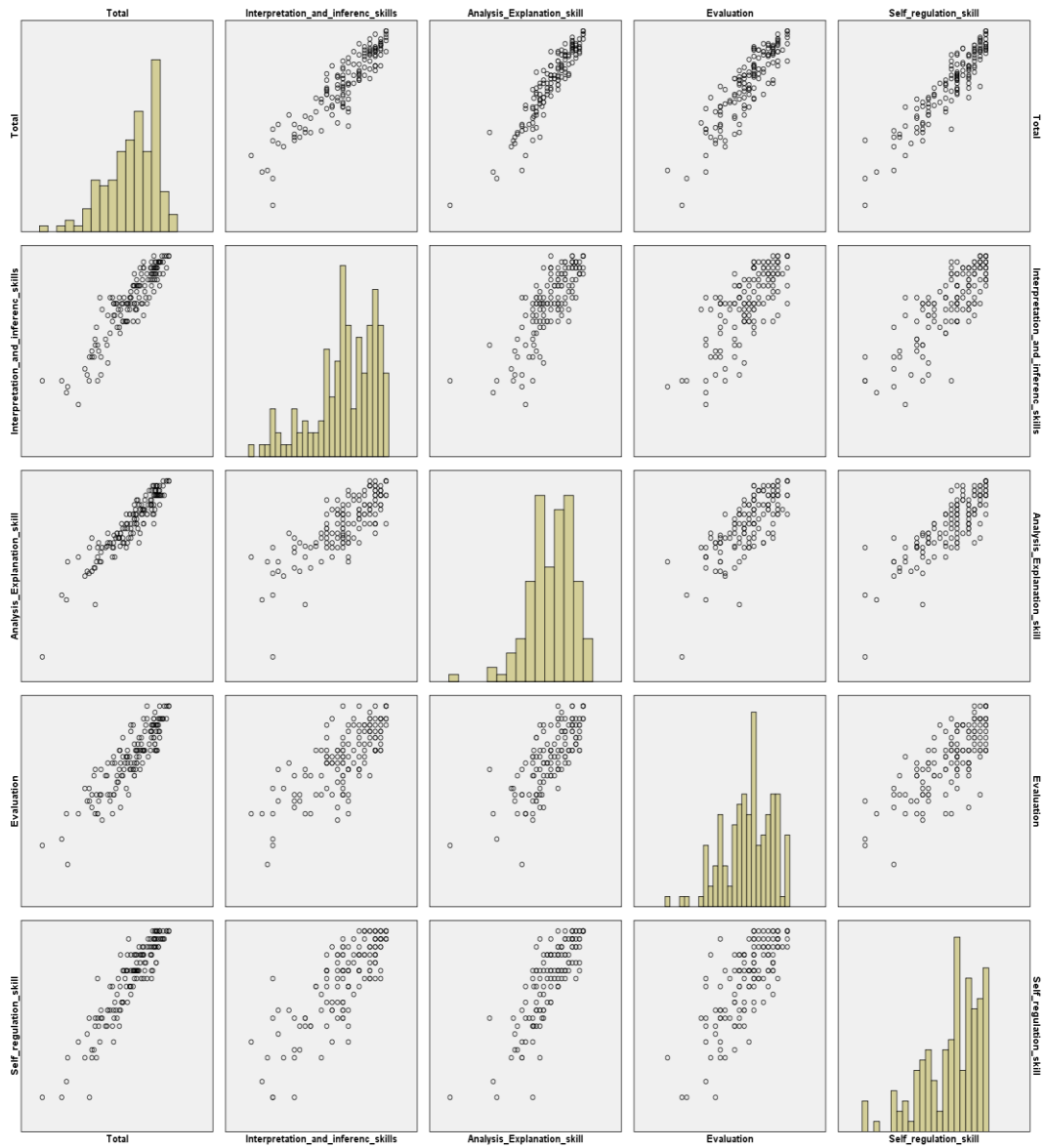
NO	STATEMENT	(0%)	(20%)	(40%)	(60%)	(80%)	(100%)
		Can do 0	Can do 1	Can do 2	Can do 3	Can do 4	Can do 5
1	I can make inferences of writers' writing attitudes.						
2	I can make inferences of writers' writing intention.						
3	I can analyze the causal relationships in English passages.						
4	I can analyze cohesion and coherence in English passages.						
5	I can reflect on my own reasoning in English discussion.						
6	I can analyze supporting evidence in English arguments.						
7	I can analyze relationships between main ideas and supporting details.						
8	I can reflect on my premise in reasoning and correct it.						
9	I can judge whether language sources are current by the publication date.						
10	I can analyze the time order in English narratives.						
11	I can comment on points of view and events in English.						
12	I can compare the differences of my country's traditional festivals and other countries.						
13	I can make inferences of English vocabulary.						

14	I can reflect on my own reasoning in writing/speaking.						
15	I can judge the authority of language sources by authors' expertise and publishers' fame.						
16	I can analyze the method of arguments.						
17	I can express something with good organization.						
18	I can compare custom differences between my country and other countries.						
19	I can make counter-arguments in spoken and written English.						
20	I can reflect on my own reasoning in passage comprehension and correct it.						
21	I can judge the plausibility of arguments.						
22	I can compare custom differences between my country and other countries.						
23	I can make inferences of English sentences.						
24	I can make inferences based on clues within paragraphs.						
25	I can reflect on my own reasoning and correct it in English discussions.						
26	I can make inferences based on clues across paragraphs.						
27	I can judge the degree of relevance of intermediate conclusions to conclusions.						

28	I can judge whether English passages are logical.						
29	I can assess the credibility in relation to conflicting details.						
30	I can reflect on my own reasoning and correct it in writing or speaking.						

2.

Please check whether you finished all the items. Thank you very much for your cooperation!



Ethics Committee Approval

Evrak Tarih ve Sayısı: 21.05.2024-120039



T.C.
İSTANBUL AYDIN ÜNİVERSİTESİ REKTÖRLÜĞÜ
Lisansüstü Eğitim Enstitüsü Müdürlüğü



Sayı :E-88083623-020-120039
Konu :Etik Onayı Hk.

21.05.2024

Sayın SABAH M. F. ABUZAQIQA

Tez çalışmanızda kullanmak üzere yapmayı talep ettiğiniz anketiniz İstanbul Aydın Üniversitesi Eğitim Bilimleri Etik Kurul Komisyonu'nun 15.05.2024 tarihli ve 2024/04 sayılı kararıyla uygun bulunmuştur.

Bilgilerinize rica ederim.

Dr. Öğr. Üyesi Nuri Gökmen KARAKİRAZ
Müdür Yardımcısı

Bu belge, güvenli elektronik imza ile imzalanmıştır.

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