



PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA



MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH

UNIVERSITY OF CHADLI BEN JEDID EL TARG

FACULTY OF LETTERS AND LANGUAGES

DEPARTMENT OF ENGLISH

## THE EFFECT OF CRITICAL THINKING OF EFL WRITING

Case of Second Year EFL Students at Chadli Ben Djedid University

Dissertation Submitted to the Department of English as a Partial Fulfillment for the Requirements of the Master's Degree in Didactics of English

**Submitted by:**

KAWTAR LAICHE

**Supervised by:**

DR. NAIMA LADACI

### Board of Examiners

President: Ms. HANIFA ZARZOUNI      MAA      Chadli Bendjedid University

Supervisor: Dr. NAIMA LADACI      MCB      Chadli Bendjedid University

Examiner: Ms. SOUMAYA ALLAOUI      MAA      Chadli Bendjedid University

**Academic Year: 2022/2023**

## DECLARATION

I **Kawtar LAICHE**, do hereby declare that this submitted work is my original work and has not previously been submitted for any institution or university for a degree. I also declare that a list of references is provided forward indicating all the sources of the cited and quoted information. This work was certified and completed at Chadli Ben Djedid University, El Tarf, Algeria.

Certified:

Ms. **Kawtar LAICHE**

Master student, Department of English

Signature:

## **DEDICATION**

I am dedicating this work to everyone who has supported me along this road without wavering, who has believed in me and has shown belief in me during moments of self-doubt.

Thank you all.

## ACKNOWLEDGEMENTS

I am delighted to acknowledge the support and help of some people during this long journey, and the ones who made this dissertation achieved.

My deepest gratitude goes to my supervisor Dr. LADACI Naima for her exceptional guidance and support. Her words were enough to motivate me to write and persevere despite the unavoidable ups and downs and moments of fear. They acted as a soothing remedy, silencing the negative voices in my head and allowing me to maintain my focus. I truly appreciate her patience with me.

I am deeply thankful for the respectable board of examiners, Ms. ZARZOUNI Hanifa, Ms. ALLAOUI Somaya who took the time to read and evaluate this research work. I am grateful and honored for their remarks and guidance for the better.

Last but not least, I am thankful for the students who participated in this research despite all the obstacles.

## ABSTRACT

This research investigates the effects of critical thinking on English as a Foreign Language (henceforth EFL) writing among second-year students at Chadli Bendjedid University, El Tarf. Through a quasi-experimental design, the study aims to explore the integration of critical thinking skills into EFL writing instruction and examines students' perceptions and awareness of critical thinking in the writing process. A questionnaire has been used to collect data from 20 students providing insights about their understanding and perspectives on critical thinking in relation to EFL writing. The responses shed light on their perceptions and attitudes towards the role of critical thinking in their writing production. Besides, 15 students were selected for the pre and posttest assessments, which aimed to measure the effects of a critical thinking intervention on their writing abilities. The findings revealed improvements in writing performance following the implementation of critical thinking strategies. The results highlight the importance of incorporating critical thinking skills in EFL writing instruction to enhance students' writing accuracy and coherence. The study underscores the significance of raising students' awareness of critical thinking and its implications for their writing skills. At the end, some recommendations and instructional tips for both teachers and students have been put forward.

**Keywords:** Critical thinking, EFL writing, students' perceptions, writing instruction.

## المخلص

تهدف هذه الدراسة البحثية إلى دراسة آثار التفكير النقدي على كتابة اللغة الإنجليزية كلغة أجنبية لدى طلاب السنة الثانية في جامعة شاذلي بن جديد. من خلال تصميم شبه تجريبي، تهدف الدراسة إلى استكشاف دمج مهارات التفكير النقدي في تعليم كتابة اللغة الإنجليزية كلغة أجنبية وفحص تصورات الطلاب ووعيهم بالتفكير النقدي في عملية الكتابة. شارك عينة مؤلفة من 20 طالبًا في الاستبيان السري، حيث قدموا رؤى حول فهمهم وآرائهم حول التفكير النقدي فيما يتعلق بكتابة اللغة الإنجليزية كلغة أجنبية. كشفت الاستجابات عن آراءهم واتجاهاتهم تجاه دور التفكير النقدي في إنتاجهم الكتابي. بالإضافة إلى ذلك، تم اختيار 15 طالبًا لإجراء تقييمات قبلية وبعديّة، بهدف قياس آثار تدخل التفكير النقدي على قدراتهم الكتابية. أظهرت النتائج تحسناً في الأداء الكتابي بعد تنفيذ استراتيجيات التفكير النقدي. تسلط النتائج الضوء على أهمية إدماج مهارات التفكير النقدي في تعليم كتابة اللغة الإنجليزية كلغة أجنبية لتعزيز دقة الكتابة واتساقها لدى الطلاب. تؤكد الدراسة على أهمية زيادة وعي الطلاب بالتفكير النقدي وتداعياته على مهاراتهم الكتابية. في النهاية تم طرح بعض التوصيات والنصائح التعليمية لكل من الطلاب والأساتذة.

**الكلمات المفتاحية:** التفكير النقدي، كتابة اللغة الإنجليزية كلغة أجنبية، تعلم اللغة، دراسة نصف تجريبية،

تصورات

## TABLE OF CONTENTS

DECLARATION.....	i
DEDICATION.....	ii
ACKNOWLEDGEMENTS.....	iii
ABSTRACT.....	iv
ABSTRACT IN ARABIC.....	v
TABLE OF CONTENTS.....	vi
LIST OF ABBREVIATIONS AND ACRONYMS.....	x
LIST OF TABLES.....	xi
LIST OF FIGURES.....	xii
General Introduction.....	1
1. Statement of the Problem.....	2
2. Aims of the Study.....	2
3. Research Questions and Hypotheses.....	3
4. Research Design.....	5
4.1. Population and Sampling.....	5
4.2. Data Gathering Tools.....	6
4.2.1. Questionnaire.....	6
4.2.2. A Quasi-experiment.....	6
5. Structure of the Study.....	7
6. Limitations of the Study.....	9
 <b>CHAPTER ONE: AN OVERVIEW ON CRITICAL THINKING</b>	
Introduction.....	12

1.1. Critical Thinking Definition.....	12
1.1.1. Critical Thinking Components.....	13
1.1.2. Critical Thinking Skills.....	16
1.1.3. Critical Thinking Strategies.....	18
1.1.4. Creative Critical Thinking.....	19
1.2. Critical Thinking in EFL Classrooms.....	20
1.2.1. The Teachability of Critical Thinking.....	21
1.2.1.1. Teachers 'Role.....	23
1.2.1.2. Students' Role.....	24
Conclusion.....	25
<b>CHAPTER TWO: WRITING AND CRITICAL THINKING</b>	
Introduction.....	27
2.1. The Origins of Writing.....	27
2.2. Definition of Writing.....	27
2.3. The Process of Writing.....	29
2.4. Critical Thinking and EFL Writing.....	29
2.4.1. Argumentative Writing.....	30
2.4.2. Creative Writing.....	31
2.4.3. Descriptive Writing.....	31
2.5. The Role of the Writing Tasks.....	32
2.6. The Impact of Critical Thinking on EFL Writing.....	32
2.7. Assessing Critical Thinking in EFL Writing.....	33
Conclusion.....	34
<b>CHAPTER THREE: QUESTIONNAIRE'S RESULTS AND ANALYSIS</b>	
Introduction.....	37

3.1. Population and Sample.....	37
3.2. Questionnaire.....	37
3.2.1. Aims of the Questionnaire.....	38
3.2.2. Findings Analysis.....	38
3.2.3. Findings Interpretation.....	48
Conclusion.....	48

#### CHAPTER FOUR: THE EFFECTS OF CRITICAL THINKING ON EFL WRITING: A QUASI- EXPEREMENTAL STUDY

Introduction.....	50
4.1. Research Methodology and Procedures.....	50
4.1.1. The One-Group Pretest-Posttest Design.....	50
4.1.2. Participants.....	51
4.1.3. Pre-test Description.....	51
4.1.4. Treatment Description.....	53
4.1.5. The Posttest.....	55
4.1.6. Students' Pretest/Posttest Scores in the Criterion of Analysis.....	56
4.1.7. Students' Pretest/Posttest Scores in the Criterion of Evaluation.....	58
4.1.8. Students' Pretest/Posttest Scores in the Criterion of Interpretation.....	59
4.1.9. Students' Pretest/Posttest Scores in the Criterion of Logical Conclusions.....	60
4.1.10. Students' Pretest/Posttest Scores in the Criterion of Problem Solving Skills.....	61
4.1.11. Student s' Pretest/Posttest Scores in the Criterion of Reflective Thinking.....	62
4.1.12. Students' Pretest/Posttest Scores in the Criterion of Creativity and Originality.....	63
4.1.13. Students' Pretest/Posttest Scores in the Criterion of Drawing Inferences.....	64
4.1.14. Students' Pretest/Posttest Scores in the Criterion of Accuracy.....	65
4.1.15. Students' Pretest/Posttest Scores in the Criterion of Cohesion.....	66

4.2. Results and Discussion.....	67
Conclusion.....	69
<b>CHAPTER FIVE: DISCUSSION AND RECOMMENDATIONS</b>	
Introduction.....	71
5.1. Discussion of the Research Hypotheses.....	71
5.2. Recommendations for Developing EFL Writing through Critical Thinking.....	73
5.2.1. Recommendations for EFL Teachers.....	73
5.2.1.1. Fostering critical thinking skills and empowering students and teachers in diverse contexts.....	73
5.2.1.2. Problem Solving Skills.....	73
5.2.1.3. Creating a Supportive Climate in the Classroom.....	74
5.2.1.4. Providing Feedback.....	74
5.2.1.5. Activity: "Critical Thinking Exchange".....	74
5.2.2. Recommendations for Students.....	76
5.2.2.1. Reflecting on their own Writing.....	76
General Conclusion.....	77
References.....	79
Appendices.....	87

## **LIST ABBREVIATION AND ACRONYMS**

**EFL:** English as a Foreign Language

**Q:** Question

**LIST OF TABLES**

<b>Table 1:</b> Critical Thinking Definitions According to Students.....	38
<b>Table 2:</b> Student Pretest/Posttest Scores in Writing through Critical Thinking.....	55
<b>Table 3:</b> Student Pretest/Posttest Scores in Criteria of Analysis.....	57
<b>Table 4:</b> Student Pretest/Posttest Scores in Criteria of Evaluation.....	58
<b>Table 5:</b> Student Pretest/Posttest Scores in Criteria of Interpretation.....	59
<b>Table 6:</b> Student Pretest/Posttest Scores in Criteria of Logical Conclusions.....	60
<b>Table 7:</b> Student Pretest/Posttest Scores in Criteria of Problem Solving Skills.....	61
<b>Table 8:</b> Student Pretest/Posttest Scores in Criteria of Reflective Thinking.....	62
<b>Table 9:</b> Student Pretest/Posttest Scores in Criteria of Creativity And Originality.....	63
<b>Table 10:</b> Student Pretest/Posttest Scores in Criteria of Drawing Inferences.....	64
<b>Table 11:</b> Student Pretest/Posttest Scores in Criteria of Accuracy.....	65
<b>Table 12:</b> Student Pretest/Posttest Scores in Criteria of Cohesion.....	66

## LIST OF FIGURES

<i>Figure 1.</i> Students' Agreement on the Statement.....	40
<i>Figure 2.</i> Students Viewpoints about Their Critical Thinking Level.....	41
<i>Figure 3.</i> Students' Thoughts about Thinking of The Aim of Their Writing.....	41
<i>Figure 4.</i> Strategies Applied by Students.....	42
<i>Figure 5.</i> Students' Prior Experience and Training in Critical Thinking.....	43
<i>Figure 6.</i> Students' Difficulties when Writing Critical Essays.....	44
<i>Figure 7.</i> Students' First Thoughts when Commenting Writing.....	45
<i>Figure 8.</i> Skills Students Good at.....	46
<i>Figure 9.</i> Students' Pretest/Posttest Scores in Writing through Critical Thinking.....	56
<i>Figure 10.</i> Students' Pretest/Posttest Scores in the Criteria of Analysis.....	57
<i>Figure 11.</i> Students' Pretest/Posttest Scores in the Criteria of Evaluation.....	58
<i>Figure 12.</i> Students' Pretest/Posttest Scores in the Criteria of Interpretation.....	59
<i>Figure 13.</i> Students' Pretest/Posttest Scores in the Criteria of Logical Conclusions.....	60
<i>Figure 14.</i> Students' Pretest/Posttest Scores in the Criteria of Problem Solving Skills.....	61
<i>Figure 15.</i> Students' Pretest/Posttest Scores in the Criteria of Reflective Thinking .....	62
<i>Figure 16.</i> Students' Pretest/Posttest Scores in the Criteria of Creativity and Originality....	63
<i>Figure 17.</i> Students' Pretest/Posttest Scores in the Criteria of Drawing Inferences.....	64
<i>Figure 18.</i> Students' Pretest/Posttest Scores in the Criteria of Accuracy.....	65
<i>Figure 19.</i> Students' Pretest/Posttest Scores in the Criteria of Cohesion.....	67



## **General Introduction**

Learning a foreign language and writing in that language can be both exciting and demanding. It has its own charm as it brings satisfaction to the writer and joy to the readers. However, it also poses challenges because it involves turning thoughts into written words, which can be difficult. This combination of rewards and obstacles defines the experience of language learners as they aim to express their ideas effectively in writing. However, learning a foreign language and mastering the skill of writing can be an engaging yet a demanding task; the incorporation of critical thinking adds another layer of complexity to this process. It is a vital skill for effective communication and problem solving, and it is very important in the field of EFL education.

Gaining an understanding of how EFL learners perceive critical thinking in the context of writing is of utmost importance when devising effective instructional strategies. The way they perceive critical thinking can significantly influence their levels of engagement, motivation, and their willingness to cultivate their writing abilities. Exploring their unique perspectives provides educators with invaluable insights, enabling them to tailor their teaching approaches to foster critical thinking skills with confidence and confidentiality.

Furthermore, it is vital to delve into the awareness of EFL learners at Chadli Bendjedid University regarding the significance of critical thinking in the writing skills. Students' awareness of the intrinsic value of critical thinking holds the potential to profoundly impact their learning attitudes and behaviors. By recognizing the pivotal role of critical thinking in writing, learners are more likely to be motivated to actively develop and apply these skills in their written assignments.

Hence, the present study endeavors to investigate the effects of critical thinking on writing among EFL students at the aforementioned university. It also seeks to delve into their perceptions of critical thinking and it aims to explore their perspectives on the role of critical thinking in the context of writing. Additionally, it aims to raise their awareness regarding the indispensability of critical thinking in the writing skills. By gaining comprehensive insights into these dimensions, this research endeavors to make significant contributions to the enhancement of EFL writing instruction. It also aspires to offer valuable insights that can empower educators and curriculum developers to foster optimal language education practices at Chadli Bendjedid University.

## 1. Statement of the Problem

The process of learning a foreign language and developing proficient writing skills has traditionally focused on language acquisition and grammatical accuracy. However, the significance of critical thinking in EFL instruction, specifically at Chadli Bendjedid University, has been overlooked. While language proficiency is important, the ability to think critically is equally essential for effective communication and producing high-quality written work. In his speech on "The Purpose of Education," King (1964) emphasized the value of critical thinking, stating that education should teach individuals to think intensively and critically.

Despite the acknowledged importance of critical thinking in various academic disciplines, its integration within the EFL curriculum has not received the attention it deserves from learners. Many language learners are often not explicitly taught the skills necessary to analyze, evaluate, and synthesize information, limiting their ability to construct well-reasoned arguments and express their ideas convincingly in writing. As a result, EFL students may struggle to go beyond surface-level comprehension and fail to engage in deeper analysis and interpretation of texts or topics. By neglecting the development of critical thinking skills in EFL teaching, educators inadvertently hinder the growth of learners' abilities to express their thoughts effectively and engage in meaningful discourse. This gap in pedagogical practice does not only hamper students' writing proficiency but also limits their capacity for independent and critical thought, which is crucial in today's interconnected and information-driven world.

Recognizing the significance of critical thinking in EFL writing, it becomes imperative to address this gap and give it the attention it deserves within the language classroom. By explicitly integrating critical thinking strategies and instructional approaches into EFL teaching, educators can empower students to become more discerning readers, analytical thinkers, and articulate writers.

This renewed focus on critical thinking will not only enhance students' writing skills but also equip them with the cognitive tools necessary for success in academic, professional, and personal contexts.. By examining the perceptions of EFL learners towards critical thinking and their awareness of its importance, this research seeks to advocate for a more comprehensive and balanced approach to EFL instruction, one that recognizes the crucial role of critical thinking in fostering effective communication and empowering students as competent and critical writers.

## 2. Aims of the Study

It is worth noting that despite the recognized importance of critical thinking skills in various academic disciplines, their integration within the realm of EFL writing instruction has often been insufficient. The traditional emphasis on language acquisition, grammar, vocabulary, and surface-level aspects of writing has overshadowed the explicit development of critical thinking abilities among EFL learners. Therefore, through this study, our primary objective is to illuminate the diverse and profound effects of critical thinking on EFL writing. By delving into the intricacies of critical thinking and its application in the writing process, we aim to provide a comprehensive understanding of its impact. This research endeavors to not only shed light on the interplay between critical thinking and EFL writing but also serve as a catalyst for raising awareness among both teachers and learners.

Specifically, our focus will be on second year EFL classroom at Chadli Bendjedid University, where we will explore the tools and strategies employed to enhance critical thinking skills in relation to writing output. We aim to offer an overview of the transformative potential of critical thinking in improving the quality and effectiveness of the written work. Ultimately, this research seeks to equip teachers and learners with valuable insights that can positively shape EFL writing instruction at Chadli Bendjedid University and beyond.

## 3. Research Questions and Hypotheses

### Research Questions:

This study seeks to answer the following questions:

**Q1:** Are EFL students at Chadli Bendjedid University aware of the importance of critical thinking in the writing skills?

**Q2:** How do EFL learners at Chadli Bendjedid University perceive critical thinking in the writing skill?

**Q3:** Does critical thinking affect second year writing at Chadli Bendjedid University?

### Research Hypotheses

Based on these questions, this research assumes that:

**Hypothesis 1:** EFL students hold positive perceptions towards using critical thinking in their writing, they also have positive attitudes toward the use of critical thinking in language classrooms and may not object them in their learning practices.

**Hypothesis 2:** There is a significant effect of critical thinking on the writing skill among EFL learners at Chadli Bendjedid University.

**Hypothesis 3:** Recognizing the role of critical thinking and actively engaging in its application within the language classrooms will significantly enhance EFL learners' proficiency in writing.

#### **4. Research Design**

Given the primary objective of this study, which is to examine the impact of critical thinking on EFL writing and assess the effectiveness of integrating i critical thinking EFL classrooms for enhancing English language writing skills, the researcher opted for a quantitative and qualitative research method. This decision was motivated by the aim together comprehensive and insightful data on the subject matter. By employing a quantitative and qualitative approach, the researcher aims to collect precise and measurable information, allowing for a more detailed analysis of the effects of critical thinking on EFL writing performance.

##### **4.1. Population and Sampling**

In this section, we delve into the population and sampling used in the study, which aimed to examine the effects of critical thinking on EFL writing among second-year students at Chadli Bendjedid University. Initially, data were collected from a group of 20 students through a questionnaire. However, the sample size decreased to 15 during the subsequent stages of the research, including the pre-test, post-test, and treatment. This intentional reduction allowed for focused analysis and ensured active participation from committed individuals who had completed two semesters of English language study.

The sampling approach employed in this study was purposeful, focusing on second- year EFL students who had completed two semesters of English language study. By selecting this specific group, we aimed to tap into their adequate language proficiency and comprehension skills, enabling them to effectively convey their thoughts and provide valuable insights on critical thinking in a written format. This deliberate selection allowed for a targeted exploration of the study's objectives.

## **4.2. Data Gathering Tools**

### **4.2.1. Questionnaire**

The study included the administration of a questionnaire to gather information from the participants. The questionnaire was designed to assess EFL students' perspectives on critical thinking in the context of writing. It consisted of a series of carefully crafted questions aimed at capturing their insights, beliefs, and experiences related to critical thinking. The questionnaire was administered to a group of 20 second-year EFL students at Chadli Bendjedid University. We aimed to gather comprehensive data on the affects and perceptions of critical thinking on EFL writing. The responses obtained from the participants would contribute to a deeper understanding of the role of critical thinking in improving writing skills and inform recommendations for effective EFL writing instruction at the university. We sought to gather comprehensive data the effects and perceptions of critical thinking in EFL writing. The responses obtained from the participants would contribute to a deeper understanding of the role of critical thinking in improving writing skills and suggest recommendations for effective EFL writing instruction at the university.

#### 4.2.2. A Quasi-experiment.

The study employed a quasi-experimental design to investigate the effects of critical thinking on EFL writing among second-year students at Chadli Bendjedid University. On this design, the researcher observed a decrease in the number of the participants from 20 to 15, as some students expressed hesitation and fear towards participating in the tests.

The quasi-experiment involved a pre-test, treatment, and post-test phase. The researcher selected a purposive sample of 15 participants who were willing to engage in the research experiment. These students had completed two semesters of English study, indicating a suitable level of language proficiency to communicate their thoughts on critical thinking in a written form. During the pre-test phase, the participants' writing skills were assessed prior to any intervention or treatment. Following the pre-test, the treatment phase was implemented, where critical thinking strategies and activities were introduced to the participants. The aim of this treatment was to enhance their critical thinking abilities in the context of writing. After the treatment, the post-test phase was conducted to evaluate the participants' writing performance once again. The data obtained from the pre-test and post-test were analyzed to examine the effects of the treatment on students' writing.

### 5. Structure of the Study

This study is structured into five chapters, each serving a specific purpose. The initial two chapters focus on conducting a comprehensive literature review, while the following two chapters center on analyzing the research data. Finally, the fifth chapter encompasses a detailed discussion of the findings and provides some recommendations.

**Chapter one:** Entitled An Overview on Critical Thinking, which encompasses the background information and introduces the research variables. It offers a detailed explanation of the components of the variables under investigation and explores the principles of teaching critical thinking in EFL classrooms. Its purpose is to provide a comprehensive foundation for understanding the context and concepts related to the study.

**Chapter two:** Entitled EFL Writing and Critical Thinking that provides a concise overview of the relationship between EFL writing and critical thinking. It explores the characteristics and significance of EFL writing and delves into the principles and theories that connect critical thinking to the writing process. This

chapter establishes the theoretical framework for integrating critical thinking skills into EFL writing instruction.

**Chapter three:** Entitled Questionnaire' Results and Analysis, attempts to gage to what extent the critical thinking is reflected in the students' writing. Additionally, to have a holistic view of the kind of critical thinking strategies students employ. Moreover, examine their awareness and perceptions of the different critical thinking skills and their effects on their writing.

**Chapter four:** Entitled the Effects of Critical Thinking on EFL Writing: A Quasi- Experimental study that focuses on the experimental design of the research which was designed to test the validity of the research hypotheses. It involves comparing the results of the pretest and posttest to assess the effectiveness of integrating critical thinking skills in improving EFL learners' writing abilities. The obtained results serve to address the research questions and confirm the validity of the formulated hypotheses.

**Chapter five:** Entitled Discussion and Recommendations, discusses the research hypotheses based on the analysis presented in chapter three and four, it also presents some methodological implications for an effective implementation of critical thinking in EFL writing, aiming to achieve a better quality of foreign language teaching and learning, at the end it highlights the research limitations.

**Chapter five:** Entitled Discussion and Recommendations, discusses the research hypotheses based on the analysis presented in chapter three and four, it also presents some methodological implications for an effective implementation of critical thinking in EFL writing, aiming to achieve a better quality of foreign language teaching and learning, at the end it highlights the research limitations.

## 6. Limitations of the Study

The primary objective of this study was to familiarize EFL learners with the use of critical thinking skills, recognizing its significance in their writing production, and raising their awareness of its effects. However, several limitations impacted the research process and outcomes. Firstly, the study intended to include a larger sample size to gather more comprehensive data. Unfortunately, due to timing constraints and a lack of collaboration from students, the sample size was limited. Initially, 20 students participated in the questionnaire, but the number decreased to 15 as some students lost interest and expressed hesitation and fear towards the tests. Moreover, the study faced challenges related to the timing of the research. Ramadan, a significant religious

observance, coincided with the research period, resulting in limited availability and reduced opportunities for additional sessions or further engagement.

Consequently, the study could not benefit from additional interactions and a more in- depth understanding of the participants' perspectives. During the post-test phase, the participants were preparing for their actual exams as second-year EFL. This circumstance significantly affected their availability and ability to collaborate effectively. The time constraints and the pressures of their academic commitments affected their capacity to work with the researcher in a suitable environment the fact that prevented the generalizability of the results. Despite these limitations, the study attempted to address the research questions and provide valuable insights into the effects of critical thinking on EFL writing at the previously stated context.

## CHAPTER ONE

### AN OVERVIEW ON CRITICAL THINKING

## Chapter One: An Overview on Critical Thinking

### Introduction

The goal of this chapter is to provide an overview on critical thinking. It is divided into two sections the first section provides the history of critical thinking with its definitions, components, the application of critical thinking in EFL classrooms, creative and critical thinking, in addition to its skills and strategies , and the possible methods that are used for the teachability of critical thinking. The second section includes the origins of writing with its definitions, EFL writing, the writing process, strategies, in addition to critical writing and its impact on EFL writing as well as the assessment of critical thinking.

### 1.1. Critical Thinking Definition

The concept of critical thinking has been existing for thousands of years, back in the ancient Greek Socrates was well known for his use of questioning, and Aristotle encouraged critical thinking. However, the significance and the effects of critical thinking as a result of student learning have long been recognized by educators .According to Paul and Elder (2009), critical thinking is defined as follows:

Critical thinking is the art of analyzing and evaluating thought processes with a view to improve them. It requires rigorous standards of excellence and mindful command of their use. It entails effective communication and problem-solving abilities, as well as commitment to overcoming our native egocentrism and sociocentrism. It advances the character and the ethical sensitivities of the dedicated person through the explicit cultivation of intellectual virtues (p. 9).

Paul and Elder (2009) emphasize the necessity of actively and skillfully interacting with knowledge and using it to guide our views and behaviors. It also highlights the different ways in which one can gather and generate information, such as through observation, experience, reflection, reasoning, or communication. According to Chance (1986), "it is the ability to analyze facts, generate and organize ideas, defend opinions, make comparisons, draw inferences, evaluate arguments, and solve problems" (p. 6). He adds that critical thinking includes a wide range of cognitive skills and processes that enable individuals to engage with information in a thoughtful and analytical manner. It goes beyond mere knowledge acquisition and involves skills such as analyzing facts, generating and organizing ideas, defending opinions, making meaningful comparisons,

drawing logical inferences, evaluating arguments, and solving complex problems. In essence, critical thinking empowers individuals to delve deeper into the subject matter, explore various perspectives, and arrive at well-informed conclusions.

Moreover, Cottrell (2005) defined critical thinking as a cognitive activity by being able to reason effectively and logically about what to believe or do is known as critical thinking. It comprises the capacity for independent and thoughtful thought. A person who is capable of critical thinking can recognize, create, and evaluate arguments, as well as recognize assumptions and biases, spot contradictions and common errors in reasoning, comprehend and apply the ideas of logic and probability, effectively communicate, solve issues, and make judgments.

According to Kohzadi et.al (2014), “critical thinking is the purposeful self – regulatory judgment which results in interpretation, analysis, evaluation and inference as well as explanation of the evidential conceptual, methodological, and contextual considerations upon which that judgment was based ( p. 65).

### 1.1.1. Critical Thinking Components

Critical thinking like any type of thinking, involves some essential elements, Bacon, (1997) stated that the necessity of being open-minded, patient, and reflective in one's thinking, as well as the need to be cautious when making assumptions and to actively guard against deceit and false ideas, are just a few of the fundamental elements of critical thinking. According to Paul and Elder (2021), there are eight fundamental elements or intellectual norms that go into effective critical thinking.

1. Purpose: is the basis for reasoning or thinking. When we are thinking about anything, it is crucial to be clear about our aim since this will enable us to concentrate and ensure that we are using the proper type of reasoning.(p.57)

2. Data: is the information that we employ to back up our arguments. It is crucial to understand the sources of our data and assess their validity.(p.58)

3. Assumptions: are the ideas and beliefs that we consider to be true. It's critical to recognize our assumptions and the influence they have on our reasoning.(p.59)

4. Concepts and Ideas: are the basis on which our thinking is built. It's critical to understand the meaning of the terms and concepts we employ and be able to articulate how they relate to one another.(p.60)

5. Inferences and Interpretations: are the conclusions we make in light of the information and our presumptions. It is crucial to be able to defend our conclusions and interpretations, as well as to be aware of the various possible readings of the data (p. 61).

6. Implications and consequences: are the outcomes of our thinking. Understanding the implications and effects of our reasoning is crucial, as is being able to balance the benefits and drawbacks of various course of action (p. 62)

7. Point of View: is the viewpoint that we are thinking about anything from. It is critical to be conscious of our point of view and receptive to taking into account those of others (p. 63).

8. Standards of Evaluation: are the standards by which we assess the effectiveness of our reasoning. It is critical to understand the standards of evaluation we are applying and be ready to defend our conclusions (p. 64).

Therefore, Paul and Elder (2010) noted that the components of critical thinking include purpose, questions, information, interpretation, concepts, assumptions, implications and consequences, point of view, inference, and clarity. Critical thinking is used to accomplish a particular objective, goal, or aim. We must formulate pertinent and insightful questions, obtain trustworthy data, assess it, and correctly interpret it if we are to accomplish our goal. While assumptions are the thoughts or ideas we take for granted when analyzing information, concepts are utilized to organize and categorize data. Point of view refers to the perspective or frame of reference from which we approach the thinking, whereas implications and consequences refer to the logical outcomes that follow from our thinking. The procedure is inference depending on the facts at hand, and how we interpret it, by making decisions or reaching conclusions. The capacity to express our thoughts clearly, including the use of plain language and sound reasoning, is what is referred to as clarity. All of these elements work together to foster the growth of strong critical thinking abilities.

Three essential elements of critical thinking have been recognized by Glaser(1941), these are: skills, attitudes, and knowledge. Skills are the methods and aptitudes that people utilize to exercise critical thought. Dispositions are the attitudes and characteristics that foster critical thinking, like an open-minded outlook and a readiness to take into account many points of view. The information and facts that people use to guide their thinking, as well as the capacity to acquire and assess information sources, are all included in knowledge. These elements work together to form the basis of critical thinking, which enables people to form accurate judgments and conclusions based on evidence and logic. Ennis's Critical thinking (1987) is described as "reasonable, reflective thinking that is focused on deciding what to believe or do"(Ennis, 1987, p. 10).Ennis lists the following as essential components of critical thinking: Interpretation, analysis, evaluation, inference, and explanation. These elements are linked to one another and function as a whole to support people in making well-informed decisions and assessments. While analysis focuses on finding connections between different pieces of information, interpretation entails understanding and elucidating the meaning of the information. People can evaluate information to determine its veracity and applicability, and they can deduce conclusions based on the evidence at hand. Finally, explanation necessitates that people express their logic and cognitive processes.

In fact, individuals can improve their problem-solving and decision-making skills, which will ultimately result in more successful outcomes by making use of these critical thinking components.

### 1.1.2. Critical Thinking Skills

Nosich (2012) argues that using critical thinking is essential for people to examine and resolve complicated issues, come to wise conclusions, and adjust to a constantly changing environment. He also believes that critical thinking skills are an essential part of education overall, because they help students become involved and responsible citizens who can successfully navigate an increasingly complex and interconnected world. They also help students to be prepared for success in the workplace; he defined these skills as:

- **Interpretation:** the capacity to understand and communicate the meaning of texts, graphs, and charts.
- **Analysis:** The ability to deconstruct complex information into simpler components and grasp how they relate.
- **Evaluation:** The capacity to judge the merit and caliber of data, as well as the reliability of sources.
- **Inference:** Drawing conclusions and forecasts based on logic and evidence is known as inference.
- **Explanation:** The ability to defend ideas and communicate reasoning and evidence, especially doing both.
- **Self-regulation:** The capacity to analyze and assess one's own knowledge and thoughts, and to modify one's strategy as necessary.

In academic settings, critical thinking is defined in terms of skills or abilities including choice, assessment, analysis, reflection, questioning, inference, and judgment (Tapper, 2004). Despite the wide range of opinions regarding what exactly critical thinking is, it is generally agreed in the literature that it is demonstrated by students' capacities to "identify issues and assumptions, recognize important relationships, make correct inferences, evaluate evidence or authority, and determine conclusions" (Tsui, 2002, p.743).

Moreover, Facione (2015) identified several key components of critical thinking that are essential for fostering intellectual growth and problem-solving abilities. Interpretation by understanding information, texts, or situations in order to communicate their meaning is a necessary skill. Strong interpretive thinkers can dissect difficult concepts, locate underlying presuppositions, and reach reliable conclusions. Facione (2015) also emphasizes the importance of analysis as another critical thinking skill. It comprises breaking down information

into its individual components, analyzing how those parts relate to one another, and spotting patterns or connections. Expert analysts are competent at assessing the facts, seeing biases, and spotting logical errors.

Evaluation is another skill that enables people to judge the veracity, applicability, and caliber of facts or arguments. Effective evaluators can critically assess the data, take into account many viewpoints, and reach well-informed conclusions. They are adept at differentiating between trustworthy and false information sources.

Beside, critical thinking requires inference which is coming to logical and reasonable conclusions based on the data at hand. Accurate predictions, the recognition of cause-and-effect relationships, and the recognition of implications or consequences are all skills of those skillful enough to make inferences.

Another skill listed by Facione (2006) is explanation, which involves having the capacity to express thoughts, arguments, and reasoning in a clear and effective manner. Strong explanatory communicators can coherently express complicated ideas, justify their beliefs, and articulate their mental processes.

### **1.1.3. Critical Thinking Strategies**

Kelley (2014) defines critical thinking as "the ability to analyze, evaluate, and construct arguments" (p. 2). He highlights several strategies for developing critical thinking; these strategies include recognizing and evaluating arguments. This entails determining an argument's grounds and conclusion and determining if the premises are consistent with the conclusion, in addition to identifying and avoiding fallacies, fallacies are logical blunders that can make an argument appear unreliable.

A key tactic in honing critical thinking abilities is recognizing and avoiding these misconceptions. Recognizing and avoiding misunderstandings is a crucial strategy for developing critical thinking skills. Information analysis and interpretation are important strategies as well. This is dissecting complicated material into simpler components and analyzing each component independently in order to completely understand the entire. Finally, it's critical to thoroughly consider the evidence. This entails taking into account the evidence's origin, the procedures employed to gather it, and the inferences that might be made about it. Therefore, to come up with and assess hypotheses, critical thinkers must possess these skills. Considering multiple perspectives to reach a well-supported conclusion, critical thinkers must be able to balance the advantages and disadvantages of several viewpoints on a given topic.

Brookfield and Preskill (2019) claim that teaching critical thinking needs deliberate strategies to help students challenge and question their assumptions and practice critical thinking. They offer a number of strategies for fostering critical thinking such as, challenging assumptions, supporting reasoning, fostering reflection, building meta-cognitive awareness, and encouraging open-mindedness. Instructors should encourage students to challenge their own and others' presumptions, take into account various viewpoints on a subject, create compelling, evidence-based arguments, and identify the advantages and disadvantages of various arguments in order to foster critical thinking.

Additionally, teachers need to assist students in developing self-awareness of their own thought and learning processes as well as self-monitoring and self-improvement techniques. Besides, encouraging critical thinking requires encouraging an attitude of inquiry, curiosity and open-mindedness as well as assisting students in identifying and overcoming their own biases and prejudices. By using these strategies, instructors can create a supportive and challenging learning environment that encourages and promotes critical thinking and helps students to develop their own critical thinking abilities (Brookfield & Preskill, 2019).

#### **1.1.4. Creative Critical Thinking**

The concepts of critical thinking and EFL writing can be subject to varying interpretations and understandings, leading to debates and disagreements within the academic community. Beyer (1987) explained these two concepts by stating that critical and creative thinking are two separate but related cognitive processes. Critical thinking focuses on studying and assessing already published material or ideas, whereas creative thinking entails coming up with original ideas and exploring alternative alternatives. Critical thinking seeks to evaluate and analyze the worth or validity of what currently existing, whereas creative thinking seeks to create something new or original (p.35).

De Bono (1992) introduced the Six Thinking Hats framework as a way to encourage both critical and creative thinking in problem-solving, where he stated that creative thinking aids in the generation of new concepts and solutions while critical thinking helps in the identification and analysis of potential issues and hazards. He made the case that while creative thinking is required to challenge preconceived notions and develop novel possibilities, critical thinking is required to assess and polish creative ideas.

Furthermore, Bono encourages people to alternate between different modes of thought, such as critical and creative thinking, in order to approach issues and make decisions from a variety of angles. This enables people and teams to think through a situation's possible hazards and opportunities and come up with fresh, original solutions that take into consideration all pertinent elements. Robinson (2011), in this context, argues that the best answers to complicated problems frequently require a combination of analytical and creative thinking since they are complementary cognitive processes. Providing opportunities for open-ended discovery and inquiry, promoting risk-taking and experimenting, and valuing many views and problem-solving techniques are some of the ways he thinks educators should work to develop both talents in their students.

#### **1.2. Critical Thinking in EFL Classrooms**

According to Kato and Kato (2020), critical thinking is an essential component of EFL education. They argue that in order for EFL learners to be effective communicators and lifelong learners, they must cultivate critical thinking abilities that allow them to assess information, examine arguments, and make wise conclusions supported by evidence.

### 1.2.1. The Teachability of Critical Thinking

Many scholars and educators believe that critical thinking is a skill that can be taught and learned, many different methods are made to incorporate critical thinking into the classroom, either through specific tasks or as an essential component of more general lessons.

According to Siegel (1988), "there is, in fact, good evidence that critical thinking is teachable and that students can learn to think more critically. Nevertheless, there are several important issues that must be addressed in the attempt to teach critical thinking" (p. 169). Siegel refers to a study by Ennis and Millman (1985), which discovered that students who received critical thinking instruction demonstrated a considerable improvement in their capacity to examine and evaluate arguments.

However, in an effort to teach critical thinking, there are a number of challenges that must be overcome, according to Siegel (1988), including resistance to the concept, a lack of effective teaching methods, challenges in evaluating critical thinking, and the need for ongoing practice (p. 165). He goes to observe that some students find it challenging to engage in critical thinking due to biases or resistance to it based on prior views.

Additionally, there may not be enough effective teaching tactics for critical thinking, which necessitates the creation of efficient teaching strategies. Another difficulty in grading critical thinking is that it entails assessing intricate processes like analysis, assessment, and synthesis. Siegel (1988) stresses the necessity for educators to give pupils the chance to engage in critical thinking tasks in a range of circumstances. He claims that critical thinking is a skill that needs constant practice.

In the same line of thought, Ellerton (2018) claims that critical thinking is a skill that is increasingly necessary in the modern world and one that can be taught and learnt. He further claims that critical thinking is a collection of cognitive and meta-cognitive skills that can be cultivated and enhanced by practice and instruction rather than a fixed or innate capacity. He offers a variety of methods for instructing critical thinking. First, he advises introducing critical thinking techniques through activities like argument mapping, decision-making tests, and reasoning exercises. Ellerton (2018) also advocates cultivating skepticism, a readiness to examine presumptions, and curiosity in order to promote inquiry and questioning. Thirdly, he supports giving people chances to practice and get feedback through peer review and instructor evaluation.

The necessity of integrating critical thinking across the curriculum is a last point made by Ellerton. By doing this, instructors may emphasize the value of reasoning and analysis that is supported by evidence in their lessons. These methods can be used by educators to assist pupils in acquiring the cognitive and meta-cognitive abilities necessary for critical thinking.

Kato and Kato (2020) emphasize the significance of teaching critical thinking in EFL instruction. They pointed out that critical thinking is crucial for successful academic and professional performance as well as active citizenship. They further assert that in order to build critical thinking skills; students must receive consistent practice and feedback, and that teachers should provide interesting, culturally relevant activities to do so. The development of critical thinking abilities is also thought to be significantly influenced by language proficiency, and while testing critical thinking abilities can be difficult, it is crucial for assessing the efficacy of instructional strategies.

Moreover, Huang (2016) offers numerous teaching methods. The first step in scaffolding assignments is for teachers to divide students into smaller, more doable tasks. By allowing them to concentrate on one stage of the writing process at a time, this can aid students in developing their critical thinking abilities. Second, teachers should serve as role models for critical thinking by giving examples of compelling arguments, participating in class discussions that show critical thinking in action, and using think-aloud to explain how they approach writing assignments.

Finally, teachers can give feedback that motivates students to consider the logic and argumentation they have used. This might entail posing inquiries that compel students to explain their reasoning, highlighting any weak spots in their arguments, and offering advice on how to edit their writing in order to develop their critical thinking abilities. Teachers can assist students in gaining the critical thinking abilities they need to be proficient writers and communicators by including these tactics into their EFL writing programs.

#### **1.2.1.1. Teachers' Role**

In teaching critical thinking, teachers play very important roles in the process. In fact, the teacher's role is “to create a supportive and intellectually stimulating environment in which students can learn to think critically. This means creating a classroom where students feel comfortable asking questions, expressing their opinions, and

challenging the status quo" (Ennis1996, p.11).He further argues that the instructor is essential in helping pupils develop their capacity for critical thought.

A supportive and intellectually interesting environment that encourages learners to improve their critical thinking skills can be created by the teacher. This requires fostering an environment in the classroom where students feel secure and empowered to share their opinions and even dispute widely held beliefs or concepts. By creating such a setting, the instructor gives the pupils the freedom to think independently, form their own opinions, and actively engage in the learning process.

#### **1.2.1.2. Students' Role**

Students are central in the development of their own critical thinking abilities, according to Padget (2013). They ought to be inspired to think critically, creatively, and actively in other words. Thus, in order to be active learners, students should be encouraged to take an active role in their own learning, by asking questions, challenging assumptions, and looking out new information. They may also be creative thinkers if they are inspired to think outside the box and thus develop fresh, original ideas. As for the reflective thinkers, students should be encouraged to reflect on their own thinking, taking into account the arguments' advantages and disadvantages and remaining open to alternative viewpoints.

Parallel to this, Houston (2011) claims that language learners should have the ability to think critically. He emphasizes the value of using a variety of activities to improve students' critical thinking skills. One of these activities focuses on producing persuasive essays in which students develop a thesis statement and support it with evidence. By requiring students to carefully consider the issue they have chosen and obtain supporting data, this activity cultivates critical thinking.

Some other activities can be used to encourage critical thinking in the language classroom in addition to Houston's recommendations. For instance, journaling enables students to express their feelings and views about particular subjects, supporting the growth of their unique critical viewpoints. Students who participate in think-pair-share activities can debate issues or questions with one another, the fact that promotes collaborative critical thinking. Students have the chance to learn different viewpoints and improve their critical thinking abilities through role-playing exercises. Last but not least, using Socratic questioning to engage students in argumentation and critical thinking by providing open-ended questions that demand it (Houston, 2011).

## **Conclusion**

Based on the aim of critical thinking, specifically in EFL contexts and language learning more generally, this chapter attempts to give some insights about critical thinking. It started by exploring various aspects of its definition and components. It begins by providing a comprehensive definition of critical thinking and delves into its different components, including critical thinking skills and strategies. The chapter also examines the relationship between creative and critical thinking, highlighting their interconnectedness. Furthermore, it discusses the application of critical thinking in EFL classrooms and explores its teachability.

CHAPTER TWO

WRITING AND CRITICAL THINKING

## Chapter Two: Writing and Critical Thinking

### Introduction

This chapter highlights the connection between critical thinking and writing. It explores the origins and definition of writing, the writing process, and the impact of critical thinking on different writing genres such as argumentative, creative, and descriptive writing. The chapter also highlights the role of writing tasks in fostering critical thinking skills and briefly touches on the assessment of critical thinking in EFL writing. This comprehensive exploration lays the foundation for the subsequent chapters of the study.

### 2.1. The Origins of Writing

The origins of writing can be traced back to ancient civilizations, showing a crucial development for improving human communication and knowledge preservation. According to Houston (2004), around 3200 BC the ancient civilizations of Mesopotamia and Egypt are where writing first appeared. However, subsequent archeological findings have revealed that writing may have independently developed in other areas, such as China and Mesoamerica, around the same time. Pictograms, which were just plain drawings that represented things or concepts, were the first types of writing. These pictograms developed into more intricate symbols over time and eventually produced a kind of writing that could express abstract ideas and sophisticated thoughts.

### 2.2. Definition of Writing

Writing has been an essential means of communication and record keeping since ancient times. Elbow (1981) stated that "writing is 'a way of thinking on paper'" (p. 2). He also notes that writing allows one to explore and learn new ideas and views in addition to articulating what they already know or believe. Writing allows us to think about our thoughts and ideas in a more intentional and introspective way. We may also use writing to deepen and clarify our thinking. According to Elbow, writing may be a tool for learning and discovery because it enables us to experiment and explore ideas in ways that may be challenging or impossible using other forms of expression. Belcher and Hirvela (2019) stated, "Writing is a way for learners to develop their language proficiency by actively engaging with the language and using it to express their ideas, thoughts, and opinions." In other words, they believe that writing can help language learners become more fluent in their target language.

By actively using the language to convey their own ideas, feelings, and opinions, learners can actively engage with the language rather than just studying vocabulary and grammar rules in isolation. Learners can improve their language abilities and gain more experience using the language in a variety of circumstances through this approach. Writing, which forces students to use the language meaningfully and purposefully and to think about the language critically, can be particularly useful in this sense. Learners can enhance their capacity to communicate effectively and to participate more completely in academic and professional settings by using writing as a tool to actively connect with the language.

Lamott (1994) argued that writing is a process of thinking and learning. She reported: "Writing is thinking. It is the process of figuring out what you think. That is why it is so important to write" (p. 12). He believes that writing is more about putting your thoughts down on paper than it is about crafting faultless sentences. She also encourages writers to be open, vulnerable, and unafraid of making errors in their writing. Writing is actually a mental activity, according to Afrin (2014), in which we first combine our ideas and thoughts when we write. After that, we organize the ideas into meaningful words or sentences and create a logically organized text. This cognitive writing process produces a number of sub-skills, including organizing, planning, editing, revising, and so on. The writing varies in complexity depending on what it is intended to accomplish.

### **2.3. The Process of Writing**

Writing is a fundamental language learning ability that helps students improve their conversational skills and overall language competency. In an effort to improve students' writing abilities and develop effective communication, educators and academics have investigated a variety of writing-related teaching and learning strategies over the years. The act of writing is a dynamic, iterative process with numerous, connected stages. According to D'Aoust (1986), the five stages of the writing process are prewriting, drafting, revising, editing, and publishing (pp. 11-17). He claimed that Prewriting is the first step, during which students compile their thoughts and ideas about the subject using strategies like brainstorming, free writing, or reflection. The following phase is drafting, where students concentrate on putting their thoughts on paper on a computer screen without worrying about grammar or spelling. Students improve their writing by refining the content, organization, and style during the revision stage once the draft is finished. This could entail changing the arrangement of phrases, adding or

eliminating details, or choosing more specific words. Following revision, students can fix grammar, spelling, and punctuation mistakes during editing, sharing the complete work with others throughout the publishing stage.

#### **2.4. Critical Thinking and EFL Writing**

Critical thinking abilities must be displayed by the writer in order to generate a work of excellent writing. This calls for intelligent content creation and the presentation of ideas that can be successfully defended. The writer can make insightful judgments about the evidence and analyses and conclusion that they have presented by using critical thinking. In essence, a quality piece of writing should demonstrate the writer's ability to apply critical thinking strategies to further develop and support their ideas (Kurland, 2000).

### **2.4.1. Argumentative Writing**

The tight connection between critical thinking and argumentative writing was investigated in a study by Zeng (2012). By instructing 62 first-year university students in argumentative writing and pertinent critical thinking concepts, the researcher hoped to improve their critical thinking abilities. The participants underwent a structured writing process over a period of four months, which included drafting argumentative essays on a weekly basis using a six-step methodology. This methodology encompassed collecting resources, evaluating them through group discussions, composing the first draft, engaging in peer review, revising the draft, and receiving post-writing feedback. The study's findings, as described by Zeng (2012) cited by Dong (2015), showed that the participants significantly improved in a number of critical thinking related areas. Relevance, clarity, logic, and coherence were some of these elements in their persuasive writing. To put it another way, the participants showed improvement in their ability to effectively incorporate pertinent material, communicate ideas clearly, create logical arguments, and guarantee overall coherence in their written work. Zeng's study offers proof of the beneficial effects of teaching critical thinking concepts and argumentative writing on university students' development of particular critical thinking skills. It emphasizes how incorporating critical thinking instruction into writing instruction can help students develop their critical thinking skills and write better argumentative essays.

According to Karimi and Behzadpoor (2017), critical thinking plays a vital role in developing persuasive arguments in argumentative essays written by EFL learners. They view argumentative writing as a form of discourse that seeks to persuade the audience to adopt a specific proposition or viewpoint. They pointed out that producing an argumentative essay is a difficult endeavor that calls for EFL students to combine a variety of abilities, including critical thinking, reading, writing, and language proficiency. They also stressed the need of critical thinking in creating convincing arguments in argumentative essays since it enables EFL students to assess and evaluate data, recognize assumptions and biases, take into account other viewpoints, and create logical and persuasive arguments. The study revealed that the use of evidence, reasoning, and counterarguments in Iranian EFL students' argumentative writings improved with the application of critical thinking teaching, also the impact of critical thinking plays a vital role in the different types of writing.

### **2.4.2. Creative Writing**

Chen and Chou (2018, p.530) discovered that among EFL students, critical thinking is favorably correlated with creative writing abilities. They pointed out that creative writing requires learners to engage in critical thinking processes like analysis, evaluation, and synthesis because it involves the development of fresh ideas, the use of figurative language, and the study of diverse perspectives. According to their study, EFL students who displayed higher levels of critical thinking also generated more imaginative and unique writing, indicating that the development of critical thinking is crucial for the growth of EFL students' creative writing abilities.

### **2.4.3. Descriptive Writing**

Mirzapour and Shahrokhi (2018, p. 73) analyzed how Iranian EFL students' critical thinking skills affected the caliber of their descriptive writing. They described descriptive writing as a style of writing that uses sensory language and vivid descriptions to paint a clear and in-depth image of a person, place, item, or event. Their research shows that critical thinking greatly improves the quality of descriptive writing by allowing students to utilize more precise and descriptive language, a greater variety of terminology, and more inventive and creative expressions. These findings imply that critical thinking is a crucial ability that should be taught in EFL classes, especially when teaching descriptive writing.

### **2.5. The Role of the Writing Tasks**

Writing assignments are essential for the growth of critical thinking abilities since they call on people to evaluate and choose the best communication methods in addition to expressing their ideas (Rivard, 1994; Klein, 2004). Students actively participate in the manifestation of their thinking by making ideas explicit and selecting the best resources for effective discussion (Quitadamo and Kurtz, 2007).

### **2.6. The Impact of Critical Thinking on EFL Writing**

It has been demonstrated that critical thinking abilities, such as the capacity to examine data, assess arguments, and evaluate arguments, are particularly advantageous for EFL writing, Indah (2017) conducted a study to explore the interplay between critical thinking, writing proficiency, and the formality of topics among Indonesian EFL learners. The findings of the research unequivocally demonstrated a strong correlation between

the students' critical thinking abilities and their performance in writing. Furthermore, the study revealed a direct association between students' critical thinking skills and the level of formality displayed in the chosen topics.

Similar to this, Lin and Zhang (2022) revealed a significant positive impact of explicit instruction in critical thinking on EFL writing performance. Students who received such instruction demonstrated improved writing skills compared to those who did not. The findings indicated that critical thinking instruction was instrumental in developing higher-level cognitive skills, including analysis, evaluation, inference, and interpretation. These skills played a vital role in enhancing the quality and depth of students' writing.

Additionally, critical thinking instruction had revealed a positive influence on students' ability to construct coherent arguments, leading to more persuasive and cohesive essays. The study's results highlight the importance of incorporating critical thinking instruction in EFL writing instruction as a means to foster improved writing abilities and the development of essential cognitive skills. Ennis (2015) emphasized the interconnectedness of thinking and writing skills, proposing that improving students' abilities in one area has a reciprocal effect on the other. In his work, Ennis highlighted the notion that by nurturing students' critical thinking skills, their writing proficiency can be enhanced, and conversely, engaging in the writing process can promote critical thinking. Ennis (2015) aptly stated, "By fostering the development of better thinkers, we empower them to become better writers, and vice versa" (p. 31).

## **2.7. Assessing Critical Thinking in EFL Writing**

Weigle (2018) points out that evaluating critical thinking in writing can be difficult, because it is frequently implicit rather than overtly stated in the work's substance. However, she asserts that there are a number of critical thinking traits that may be seen in student writing, including the use of evidence to back up claims, the capacity to take into account many viewpoints, and the assessment of assumption and biases. Weigle(2018) also stresses the significance of applying a variety of assessment techniques, including as holistic scoring, analytic rubrics, and self-evaluation, in order to fully comprehend students' writing-related critical thinking abilities. Further, she explained that the process of holistic scoring is assessing a student's written work as a whole and determining one score based on an overall assessment of the writing's quality.

This method is helpful when the writing's overall communicative efficiency is the main subject of the evaluation, and Analytic rubrics, on the other hand involve dissecting a piece of writing into its component parts

or aspects and assessing each one independently. With this method, each feature is given a score or rating based on predetermined standards or descriptors, which are then added up to produce a final writing score. Also, self-assessment can be a helpful strategy for assessing critical thinking in EFL writing in addition to these other approaches (p. 38). In self-assessment, students analyze their own writing and judge it in light of a set of norms or criteria. This method encourages students' Meta cognitive awareness of the writing process and aids them in developing their own understanding of what makes for excellent writing. (Weigle, 2018, p. 105).

## **Conclusion**

In conclusion, this chapter has examined the origins of writing, provided a definition of writing, discussed the process of writing, explored the role of critical thinking in EFL writing across argumentative, creative, and descriptive genres, considered the impact of critical thinking on EFL writing, and highlighted the importance of assessing critical thinking in EFL writing. It emphasizes the significance of integrating critical thinking skills into writing instruction to enhance students' proficiency and promote effective communication.

CHAPTER THREE  
QUESTIONNAIRE RESULTS AND ANALYSIS

## Chapter Three: Questionnaire' Results and Analysis

### Introduction

As far as this chapter is concerned, an attempt is made to get an overview on both critical thinking and writing within second year EFL students at Chadli Bendjedid University, El Tarf. Besides, it aspires to verify the validity of the research hypotheses formulated at the beginning of the present work through the analysis of the first data gathering tool involved in this study which is the students' questionnaire.

### 3.1. Population and Sampling

The target population of this study is second year EFL students at Chadli Bendjedid University, El Tarf during the academic year 2022/2023. A total of 20 students answered the questionnaire; however this number decreased to 15 students during the quasi experimental phase. The participants received the same education during their studies. The choice of this population was purposefully made since second-year students are at an important point in their language learning process, where they have learned the fundamentals of the language and are starting to master more complex writing skills. Because of this, they make a good population for the research on how critical thinking affects EFL writing.

### 3.2. Questionnaire

Since the quantitative research method was used in this research, the questionnaire is a powerful tool for collecting data and conducting analysis in various research investigations and can be referred to as a gate into the minds of participants, offering valuable insights and perspectives that may contribute to the depth and understanding of research. The present study involved a questionnaire for second year EFL students, composed of 10 questions in one section. The questionnaire comprised a diverse range of question formats, including multiple-choice questions, open-ended questions, and closed ended questions.

Overall, the questionnaire was created with the intention of examining the impact of critical thinking on the writing abilities of EFL students at Chadli Bendjedid University. It also aimed to investigate how EFL students at the institution perceived critical thinking in writing settings. Moreover, the questionnaire also aimed to assess how well aware are EFL students of the value of critical thinking in the advancement of their writing abilities. Insightful information about the influence of critical thinking on EFL students' writing abilities,

perceptions of critical thinking in writing, and general awareness of its significance can be gathered from the data collected through the questionnaire.

### 3.2.1. Aims of the Questionnaire

The questionnaire's main goal is to find out how students perceive the function of critical thinking in the writing process and gauge how much they are aware of its importance for improving their writing abilities. The questionnaire also sheds light on the interaction between critical thinking and EFL writing.

### 3.2.2 Findings Analysis

After collecting the data obtained from the students' questionnaire, the research stepped to the next stage of analysis and interpretation that would provide a clear picture of the students' critical thinking skills, and the results are reported in the following:

#### Question 01: Critical thinking in writing means?

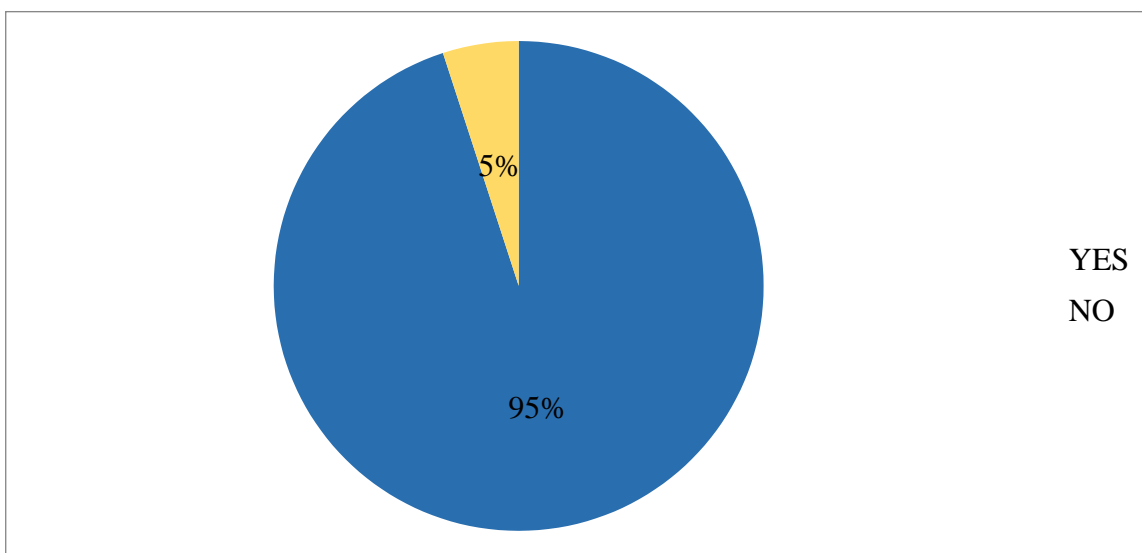
Table 1

*Critical Thinking Definitions according to Students*

Definitions	Participants	Percentages
1. Carefully considering an idea and evaluating the evidence, supporting it to see if it is convincing	11	55%
2. Writing for the audience, which encourage you of their needs, and eventually you will develop your repertoire.	1	5%
3. Thinking about your own thinking, by re-reading and drafting, and prioritizing the important ideas.	5	25%
4. Organizing your ideas thoughtfully.	3	15%
5. Stating facts instead of opinions.	0	0%

It appears from table 1 that the participants find the definition of "carefully considering an idea and evaluating the evidence, supporting it to see if it is convincing" to be the most valuable with 50% of the participants selecting it as their top choice. The definition of "thinking about your own thinking" received 25% of the answers, followed by "organizing your ideas thoughtfully" at 15%, and "writing for the audience" at 5%. Interestingly, none of the participants selected the definition of "stating facts instead of opinions" as their top choice.

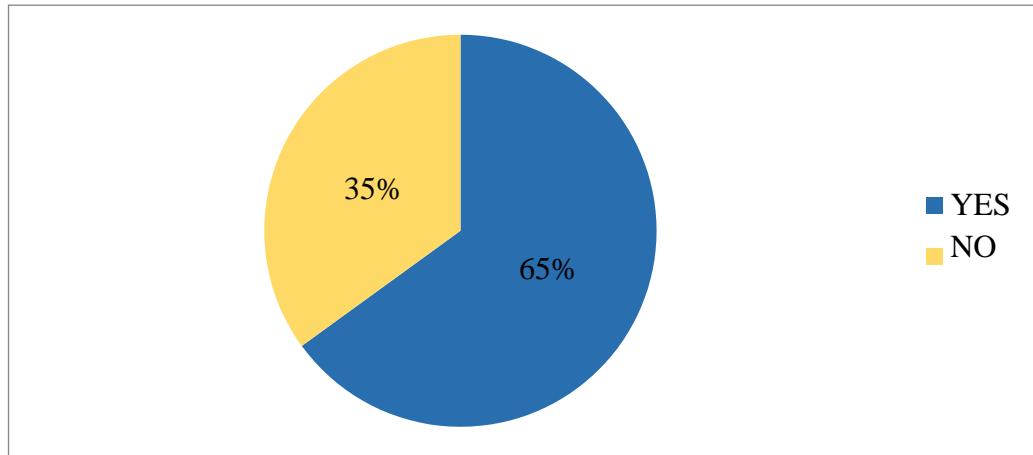
**Question 02:** Critical thinking requires you to use your ability to reason; it is about being an active learner rather than passive recipient of information. Do you agree with this statement?



*Figure 1.* Students' Agreement on the Statement

As shown in figure 1, the overwhelming majority (95%) of the respondents agreed with the statement that critical thinking requires the use of reasoning and an active approach to learning, while only 5% disagreed without explaining the reasons behind it. The high percentage of agreement suggests that most students recognize the importance of critical thinking and its role in actively engaging with and evaluating information. Critical thinking involves analyzing information, making judgments based on evidence and logic, and considering multiple perspectives, rather than simply accepting information at face value.

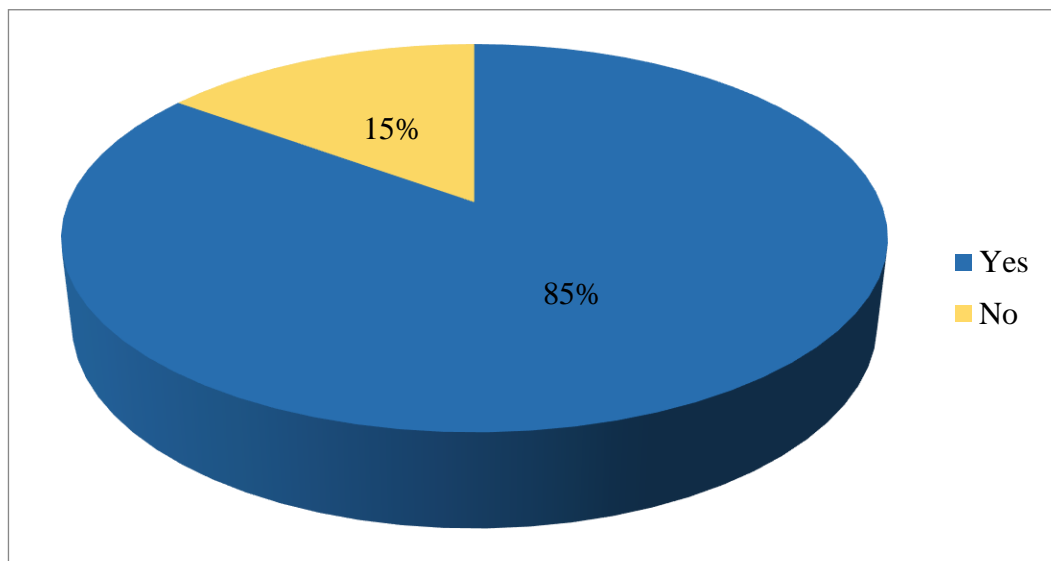
**Question 03:** Do you think you are good at critical thinking?



*Figure 2. Students Viewpoints about their Critical Thinking Level*

As it is clearly shown in figure 02, the majority of the participants 65% (13 participants) consider themselves good at critical thinking, while 35% (7 participants) reported the opposite.

**Question 04:** When you are asked to write critically, do you ask yourself about what are you aiming to achieve?



*Figure 3. Students' Thoughts about Thinking of the Aim of their Writing*

As shown in figure 04, 85% of the participants answered with "yes" to this question, indicating that they do indeed consider their objectives when engaging in critical writing. However, 15% of the participants answered this question negatively, suggesting that they do not typically contemplate their goals when undertaking critical writing tasks.

**Question 05:** In critical thinking, which one of these strategies is applied by you? (You can choose more than one)

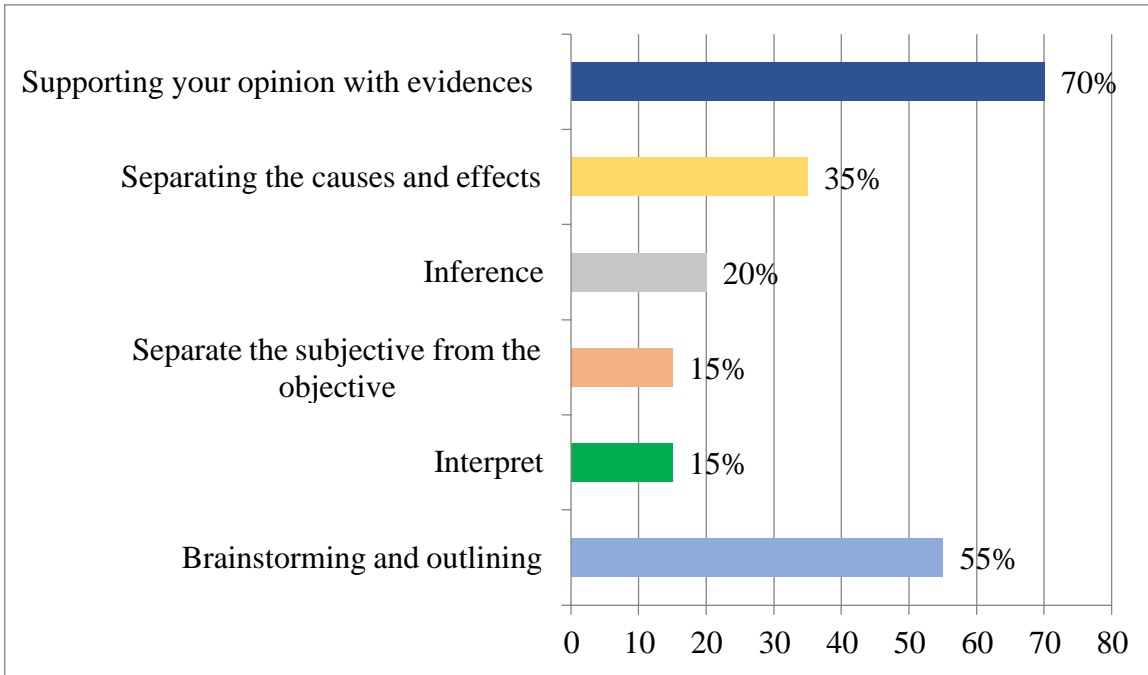


Figure 4. Strategies applied by Students

The majority of students (70%) opted for supporting their opinions with evidence. Additionally, 35% of the participant students identified their ability to separate causes and effects as a key strategy. Inference was associated with them by 20% of the participant students, while 15% acknowledged their skill in separating the subjective from the objective and interpretation. Another 15% recognized their ability to engage in brainstorming and outlining.

**Question 06:** As a second year student, have you ever received any previous training as far as critical thinking is concerned in written expression? If yes, how was your experience and how was it beneficial for you?

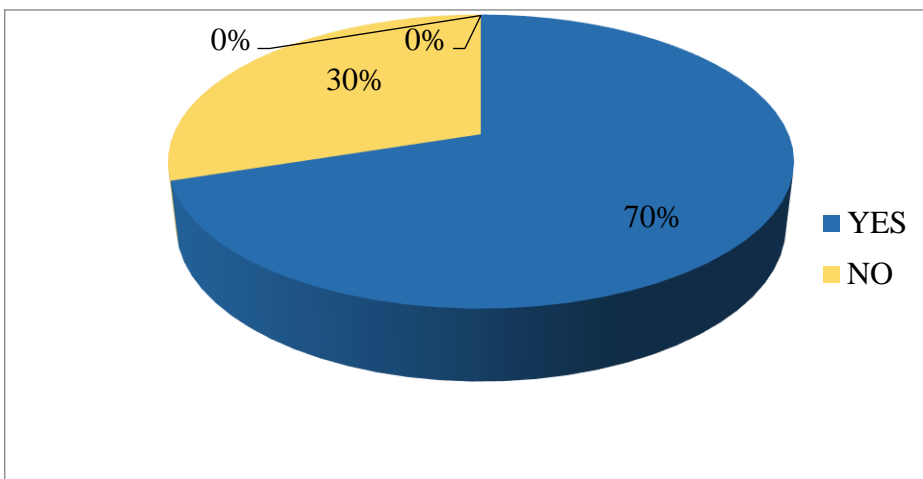


Figure 5. Students' Prior Experience and Training in Critical Thinking

As figure 04 indicates the majority of students (70%) did not receive any previous training as far as critical thinking is concerned in written expression, Surprisingly, (30%) of the students revealed that they received training in critical thinking, but only (15%) of them explained this training , and how it was beneficial for them.

**Students' explanations:**

- Technically, it was outside of the university, it was informative and entertaining, to think about a story and focus on the details, it strengthened my reasoning.
- It was training, we were asked to distinguish between critical thinking and learning by heart, so we can understand the importance of critical thinking.
- My experience was like seeing another door from different perspectives, by knowing how to be critical in my writing, and taking into consideration the readers who are going to read my writing.

**Question 07:** Do you usually face any difficulties when you are asked to write a critical essay or a paragraph? Please explain.

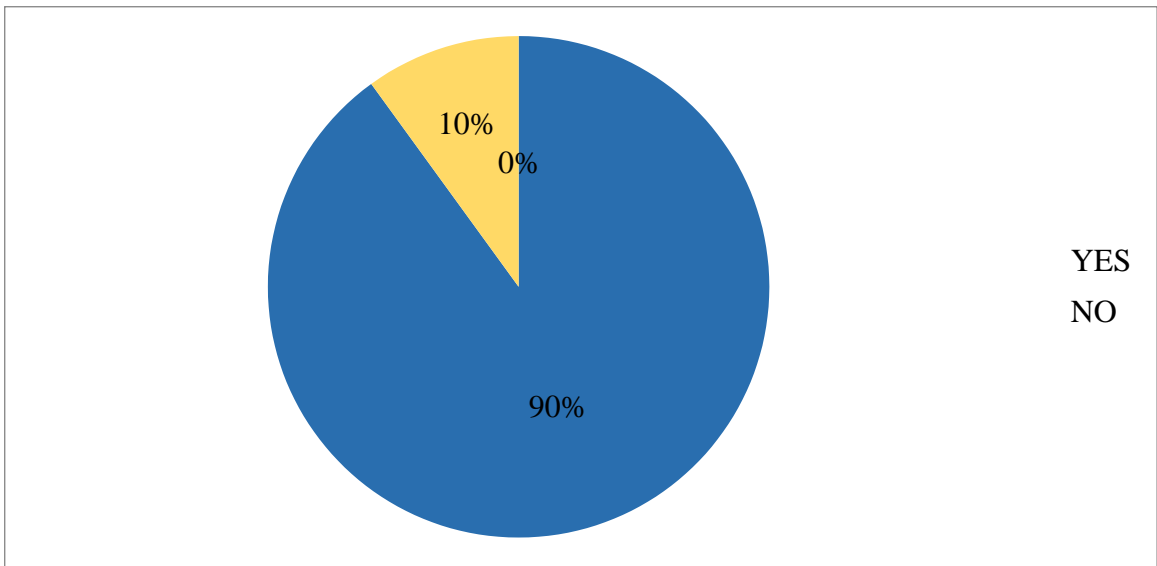
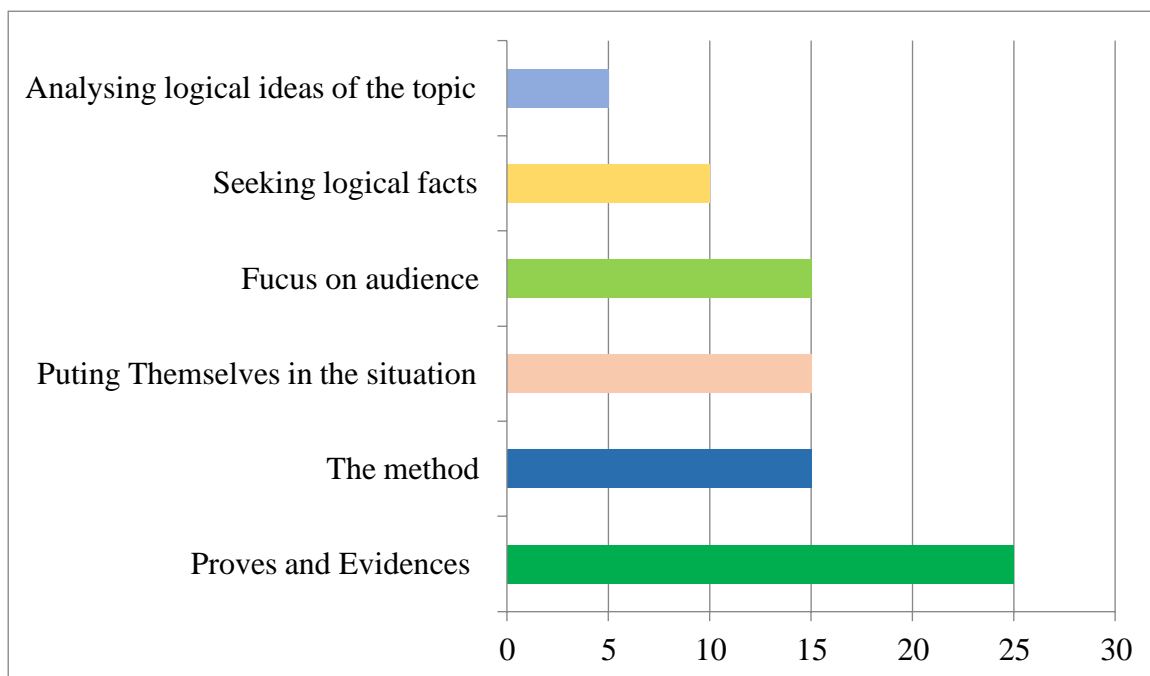


Figure 6. Students' Difficulties when Writing Critical Essays

It is evident that a significant majority of students (90%) encounter difficulties when they are tasked with writing a critical essay or paragraph. Among those who expressed challenges, 50% attributed their difficulties to a

lack of ideas and information about the given topic. This suggests that these students struggle with generating or accessing relevant content to support their critical analysis. Additionally, 20% of the participants claimed that their weak logical thinking and issues in judgment posed obstacles in their critical writing process. Another 20% of the students reported difficulties in organizing and collecting information, as well as a lack of vocabulary. However, it is worth noting that 10% of the participants did not perceive difficulties in writing critically. One student justified this by stating that it is easy to find information nowadays, implying that they have ample access to resources that aid their critical writing process. Another student mentioned that they always speak their mind and are confident in doing so, especially when they have solid evidence or facts to support their viewpoints.



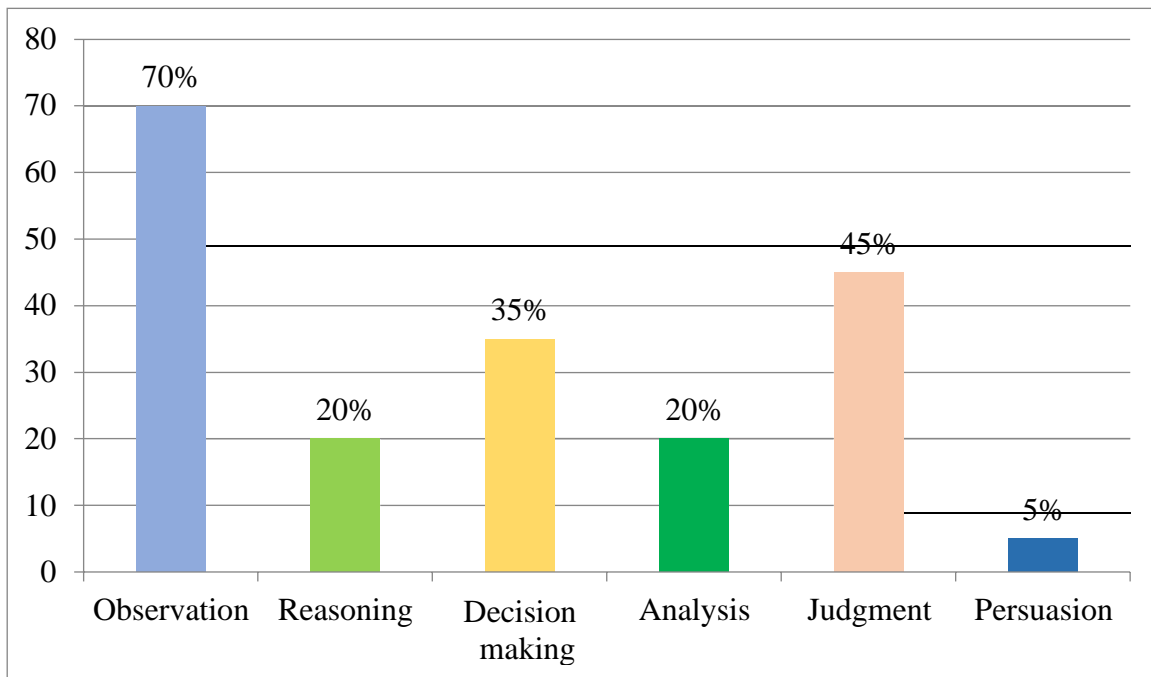
**Question 08:** As a student you are writing an argumentative essay or a paragraph, and you are asked to provide comments and critiques, what is the first thing that comes up to your mind? Please explain.

*Figure 7. Students' First Thoughts when Commenting Writing*

Regarding students' initial thoughts when asked to provide comments and critiques in an argumentative essay or paragraph, a variety of considerations emerged. The highest percentage (25%) in students' answers indicated that their first priority is to find proofs and evidence to support their arguments, highlighting the importance of substantiating their claims with credible information. A significant portion (15%) mentioned focusing on the method of writing, recognizing the impact of organization, structure, and coherence on the

persuasiveness of their arguments. Similarly, another (15%) of students emphasized the value of putting themselves in relevant situations or considering different perspectives to enhance their critical analysis. A similar percentage (15%) expressed a focus on convincing others through persuasive arguments, underscoring the need for effective persuasion techniques. A smaller proportion of students (10%) mentioned seeking logical facts, while one student (5%) specifically emphasized analyzing the logical idea of the topic. It is worth noting that (15%) of the participants did not provide a specific answer.

**Question 09:** Which one of these skills do you think you are good at?



**Figure 8.** Skills Students good at

Among the options provided to the students, observation was the most popular skill, with 70% of them choosing it. Reasoning was the second most chosen skill, selected by 20% of the students. Decision making garnered the preference of 35% of students, while 20% opted for analysis. Judgment was chosen by the highest percentage, with 45% of students selecting it as their preferred skill. Persuasion received the least amount of preference, chosen by only 5% of participants.

**Question 10:** How does critical thinking influence your writing production? Please explain.

The answers provided to this question show that critical thinking exerts a significant influence on students' writing production. The breakdown of their perspectives reveals the multifaceted impact of critical thinking on their approach; the majority of students 5 students (25%) expressed that critical thinking enhances both their writing and speaking abilities. (10%) of the participant students acknowledged that the influence of

critical thinking on their writing production depends on the intended audience. A small percentage of students (5%) emphasized that critical thinking involves a process of making judgments that culminate in a logical conclusion. For them, critical thinking entails evaluating various perspectives and arriving at well-reasoned conclusions. Additionally, 10% of the students emphasized that critical thinking is a personal endeavor that involves their own thinking.

This recognition of personal agency suggests that critical thinking plays a crucial role in shaping their individual thought processes and, consequently, their writing production. 5% of the participants underscored that thinking critically is the first step they take before writing, implying that critical thinking serves as a fundamental pillar, shaping subsequent content and arguments. Therefore, 5% of the participants mentioned that critical thinking helps in observing and organizing ideas, enabling them to identify key points, structure arguments, and ensure coherence in their writing. 10% of the students highlighted that critical thinking enhances their ability to analyze information and make informed decisions. This analytical skill allows them to evaluate evidence, consider various perspectives, and make reasoned judgments, thereby elevating their writing production. One student (5%) acknowledged that critical thinking aids them in avoiding repetition in their writing, prompting them to critically assess their content and present ideas in a fresh and engaging manner. Lastly, another student (5%) emphasized that critical thinking supports their creativity and positive attitude towards writing tasks.

### **3.2.3. Findings Interpretation.**

The findings of this study provide valuable insights into the effects of critical thinking on EFL writing among students at Chadli Bendjedid University. Hypothesis 1, which posited that EFL learners hold positive perceptions towards critical thinking in writing, was supported by the results. Participants recognized the importance of analyzing information, evaluating evidence, and organizing ideas thoughtfully. Hypothesis 2, stating that there is a significant effect of critical thinking on the writing skill, was also supported. Participants agreed that critical thinking requires reasoning and active engagement, considered their objectives in critical writing, and utilized various strategies such as analyzing information and evaluating evidence. Finally, Hypothesis 3, proposing that recognizing and actively engaging in critical thinking enhances writing proficiency, received support from the findings. Participants perceived themselves as good critical thinkers, reflected on their goals in critical writing, and recognized the influence of critical thinking on writing production. Overall, this

study highlights the positive impact of critical thinking on EFL writing, emphasizing the need to incorporate critical thinking skills and strategies in language classrooms to improve students' writing abilities and produce accurate and coherent written work.

## **Conclusion**

The use of critical thinking in teaching writing has become very important nowadays, and the purpose of this study is to probe the level of using critical thinking skills and strategies in writing among EFL learners at Chadli Bendjedid University (EL Tarf), and how students' perceive the critical thinking in their learning. The findings of the study showed that critical thinking is barely used in EFL classrooms, however the students seem to understand the importance of it, and they and recognize the potential for critical thinking to enhance their writing abilities.

**CHAPTER FOUR**

**THE EFFECTS OF CRITICAL THINKING ON EFL WRITING:  
A QUASI- EXPERIMENTAL STUDY**

## **Chapter Four: The Effects of Critical Thinking on EFL Writing**

### **A Quasi- Experimental Study**

#### **Introduction**

The study used a quasi-experimental design to investigate the effects of critical thinking on EFL writing, we established a foundation to conduct this study and answer the research questions, examine the hypotheses to determine their validity or inexistence.

#### **4.1. Research Methodology and Procedures**

This study utilizes a quasi-experimental design that aims at attaining the sought after goal of this research. The following section presents an overview of the methodology and procedures employed. The quasi-experimental research study focused on examining the effects of critical thinking on EFL writing. By investigating the relationship between critical thinking skills, strategies and (EFL) writing performance, this study aims to contribute to the existing body of knowledge in the field and provide insights into the potential benefits of integrating critical thinking instruction in EFL classrooms.

As is mentioned previously, a questionnaire was given to second year EFL students to track and detect their perspectives and understands the effects of critical thinking on EFL learners' writing, probe their awareness about critical thinking, and how they perceive its importance in their writing skills. After the questionnaire, a pretest was given to students followed by the treatment and finally the posttest to collect numerical data.

##### **4.1.1. The One-Group Pretest-Posttest Design.**

The one group pretest-posttest design seeks to gather data from students regarding their accomplishment of a subject. The one group design is a type of quasi-experimental design in which there is only one group of participants. The participants are measured before and after an intervention is implemented (Creswell, 2018, p. 152). This design enables the comparison of the pretest scores with the posttest ones in order to check the effect of the intervention. This evaluation in turn, aims to assess the efficacy of implementing the independent variable.

##### **4.1.2. Participants**

The final analysis was conducted with the data collected from 15 students who completed both the pretest and posttest, followed by the treatment.

##### **4.1.3. Pre-test Description**

To achieve the research goals and assess the impact of critical thinking on students' writing, we implemented a simple task that aimed to engage students without overwhelming them. We designed a story that resonated with their morals and values, encouraging them to employ defense strategies for argumentation. Following the story, we posed three specific questions. First, we asked the students to complete the story, allowing their creativity and critical thinking to shape the narrative. Next, we requested an explanation of their agreement or disagreement with the story, enabling them to express their opinions and justify their stance. Finally, we asked them to provide a title for the story, capturing the essence and theme of their written piece. This approach was intended to create an engaging and accessible framework for students to apply their critical thinking skills in a meaningful way and that helped us assess students' overall picture in their application of critical thinking.

The pretest was used as a diagnostic tool to measure learners' preparedness for the use of critical thinking in their writing; it helped in the assessment of their weaknesses and strengths in the skill prior to the implementation of the treatment. Since the pretest was a story; the research used these measurement criteria to assess the students' use of critical thinking in their writing:

<p><b>Analysis of Thought:</b> the assessment aims to evaluate the students' ability to examine and break down the components of the story, analyze its structure, identify key elements, and draw meaningful conclusions.</p>
<p><b>Evaluation:</b> Assessing the students' ability to critically evaluate the story and the character's actions is crucial in understanding their thinking process and their ability to analyze situations from multiple perspectives.</p>
<p><b>Interpretation:</b> Analyzing how students interpret the story and the character's actions can shed light on their understanding and critical thinking skills.</p>
<p><b>Drawing Logical Conclusions:</b> This aspect focuses on students' ability to draw reasoned and logical conclusions based on the information presented in the story.</p>
<p><b>Problem-Solving Skills:</b> Evaluating students' problem-solving skills within the context of the story can provide insights into their critical thinking abilities.</p>
<p><b>Reflecting on Thinking:</b> Examining students' ability to reflect on their own thought processes and consider alternative viewpoints demonstrates higher-order thinking skills.</p>

<b>Creativity and Originality:</b> Assessing ability to create original ideas, and conclusions.
<b>Drawing Inferences:</b> Analyzing students' capacity to make inferences based on the information provided in the story is an important element of critical thinking.
<b>Accuracy:</b> Assessing the accuracy of students' written responses measures their ability to convey information correctly and effectively.
<b>Cohesion:</b> Evaluating how well students organize their ideas, maintain coherence, and connect sentences to ensure logical flow in their writing is important for assessing their writing proficiency.

#### 4.1.4. Treatment Description

After taking the pretest, the same students were exposed to a treatment designed to examine the effects of enhancing critical thinking on EFL writing. The treatment was divided into four stages over a period of four weeks, with each session lasting 30 to 35 minutes.

In the first session, we provided explicit instruction on critical thinking by introducing students to the main components such as analysis, evaluation, problem solving, decision-making, and creative thinking. We discussed the purpose, questions, information, interpretation, concepts, assumptions, implications, and point of view in depth. Additionally, we addressed the relationship between critical thinking and EFL writing, defining critical writing and providing examples to enhance students' understanding of these skills.

During the second session of the quasi-experimental study, students were introduced to a range of critical thinking strategies to enhance their EFL writing. These strategies included analyzing thought by breaking down arguments, identifying and challenging assumptions, clarifying problem statements, gathering information from various sources, considering multiple perspectives, drawing logical conclusions, practicing effective communication, and reflecting on their thinking processes. We also taught critical thinking skills such as interpretation, analysis, evaluation, inference, explanation, self-regulation, open-mindedness, and problem-solving. Additionally, critical writing strategies were addressed, including identifying significance, creating dialogues between opposing viewpoints, understanding assumptions, using clear and precise language, addressing objections, and being open to new ideas.

In the third session, we provided students with a checklist representing skills and strategies for engaging

in critical thinking. This checklist served as an invaluable tool to enhance critical writing and thinking skills, providing students with a structured framework for thoughtful analysis and reflection. We clarified these skills to raise students' awareness and emphasized that if they could not answer "yes" to any of the checklist questions, their work might be missing evidence. The checklist aimed to support their development of critical thinking skills and their application.

In the fourth session, students engaged in an activity that involved the use of critical thinking. It was adapted from the works of Canale and Swain (1980) and Brown (2000). We discussed a statement in the classroom, followed by questions that required evidence, assumptions, and reasoning. Through oral discussions and providing correct answers, we helped students understand the application of critical thinking. Additionally, a handout containing general instructions was handed to students. The general instructions provided in the handout aim to enhance students' critical thinking skills in EFL writing. They encourage students to first understand the topic and problem at hand by analyzing its components. Students are then urged to evaluate the evidence presented, considering its quality and relevance. Moreover, the instructions emphasize the importance of identifying and evaluating assumptions, recognizing personal biases, and applying logical reasoning. Students are encouraged to consider alternative viewpoints, draw well-reasoned inferences, and effectively use evidence to support their arguments.

In fact, these instructions served as a framework for students to develop their critical thinking abilities and produce more thoughtful and well-supported written work in English. By following this treatment, we aimed to enhance students' critical thinking abilities in EFL writing, allowing them to think more analytically, evaluate information effectively, and produce well-developed written works in English.

#### **4.1.5. The Post-test**

As mentioned in the pretest description, we designed a story that resonated with the students' morals and values. We asked them questions about the story to assess their understanding of the text. In the posttest, we added more questions that required the students to use critical thinking skills. Students were presented with a series of thought-provoking questions that aimed to foster critical thinking skills. These questions encompassed a range of aspects related to the story and its theme, prompting students to engage in analytical thinking, evaluate moral implications, and consider different perspectives. For instance, students were asked to complete the story,

providing a logical conclusion based on their understanding of the events. They were also challenged to assess the actions of the protagonist, Jasmine, and express their agreement or disagreement with her choices, requiring them to think ethically and justify their stance. Besides, some questions delved into the factors influencing Jasmine's change in behavior, strategies for detecting and preventing lying, cultural differences in accepting lying, motivations for lying, and the ethical acceptability of lying.

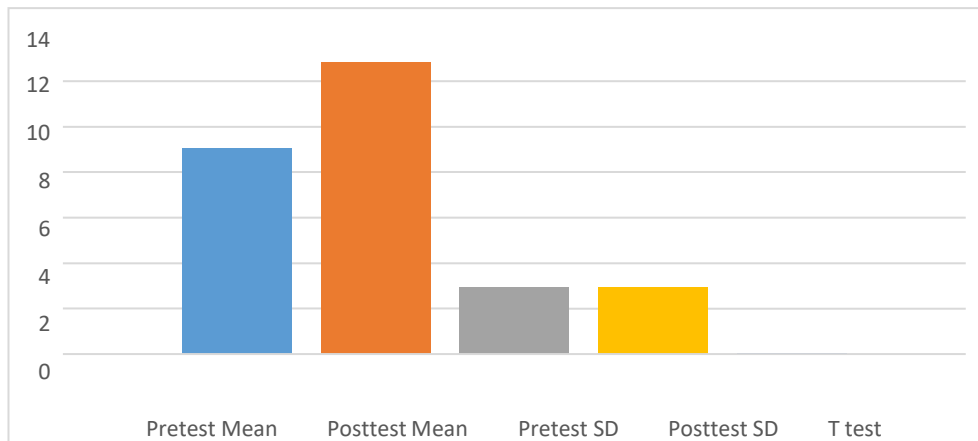
These questions aimed to stimulate critical thinking, problem-solving, and ethical reasoning skills among the students, enabling them to analyze complex situations, evaluate various viewpoints, and articulate their thoughts effectively. This was done to check the effectiveness of the treatment, as we expected the students to be more aware of critical thinking skills and strategies after the treatment.

The participants registered pretest/posttest scores before and after undertaking the treatment are charted and graphically displayed as follows:

Table 2

*Students' pretest/posttest scores in writing through critical thinking*

Statistic Description	Mean Pretest	Mean Posttest	SD Pretest	SD Posttest	T test
Critical Thinking Criterion	9.033	12.833	2.918	2.917	0.003
Difference	3.8		-		0.001



*Figure 9. Students' Pretest/posttest Scores in Writing through Critical Thinking*

The results presented in table 02 and displayed in figure 09 give enough proof of the progress students made in writing through the critical thinking treatment that they underwent. The progress was demonstrated in the scores ( $M= 12.833$ ,  $SD= 2.917$ ) in comparison with ( $M= 9.033$ ,  $SD= 2.918$ ,  $t= 0.003$ ). The considerable mean difference (3.8) may explain that students' posttest progress is due to the experimentation that promoted critical thinking for the improvement of the writing ability.

#### 4.1.6. Students' Pretest/Posttest Scores in the Criterion of Analysis

The participants registered pretest/posttest scores before and after undergoing the treatment that focused on improving the criterion of analysis in writing are charted and graphically displayed as follows:

Table 3

##### *Students' Pretest/posttest Scores in the Criterion of Analysis*

Statistic	Mean <sub>1</sub> Pretest	Mean <sub>2</sub> Posttest	SD <sub>1</sub> Pretest	SD <sub>2</sub> Posttest	T test
Criterion of Analysis	1.033	1.433	0.442	0.372	0.022
Difference	0.4				- 0.07

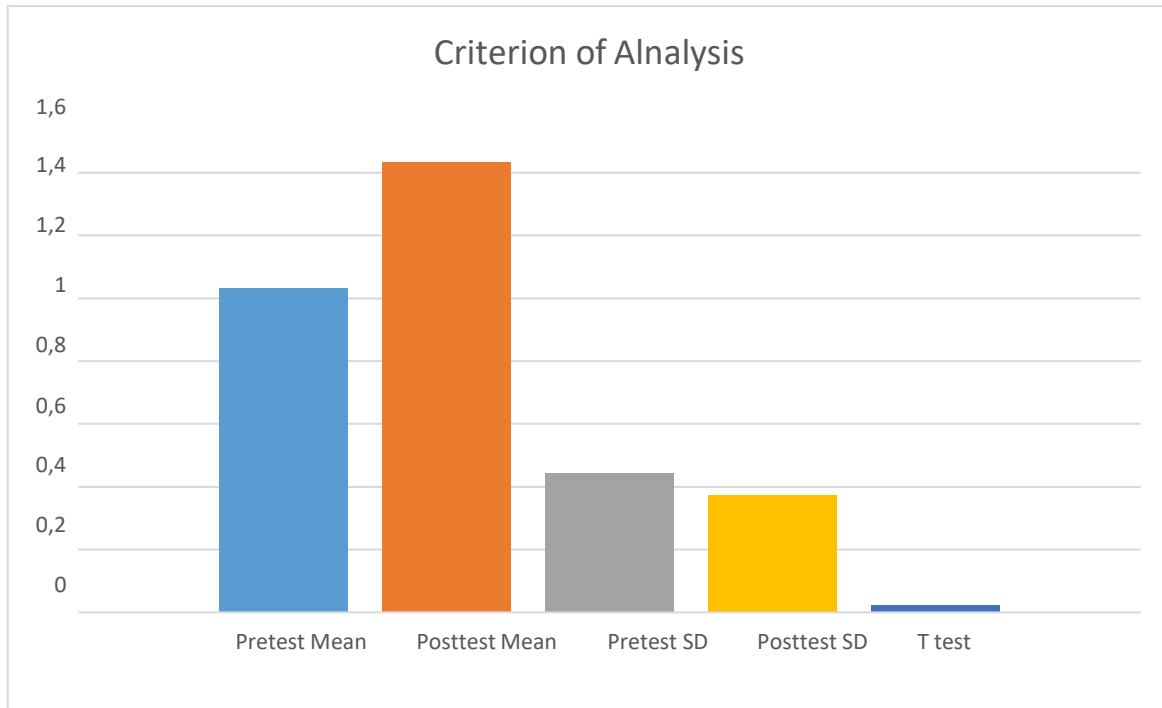


Figure 10. Students' Pretest/posttest Scores in the Criterion of Analysis

The results displayed in table 03 and figure 10 show obvious progress in the analysis criterion of students' writing. The posttest scores ( $M_2 = 1.433$ ,  $SD_2 = 0.372$ ) in comparison with that of the pretest ( $M_1 = 1.033$ ,  $SD_1 = 0.442$ ) illustrate the progress. The medium size difference between the means of the pretest and posttest ( $M_2 - M_1 = 0.4$ ) in addition to the statistical significance of the t test ( $0.022 < 0.05$ ) could be attributed to the critical thinking treatment. The analytical skills of the students improved after the treatment.

#### 4.1.7. Students' Pretest/Posttest Scores in the Criterion of Evaluation.

The participants registered pretest/posttest scores before and after the treatment that focused on improving the criterion of evaluation in writing are tabulated and displayed as follows:

Table 4

*Students' pretest/posttest Scores in the Criterion of evaluation*

Statistic	Mean <sub>1</sub> Pretest	Mean <sub>2</sub> Posttest	SD <sub>1</sub> Pretest	SD <sub>2</sub> Posttest	T test
Criterion of Evaluation	0.600	0.900	0.338	0.660	0.095

Difference	0.3	0.322
------------	-----	-------

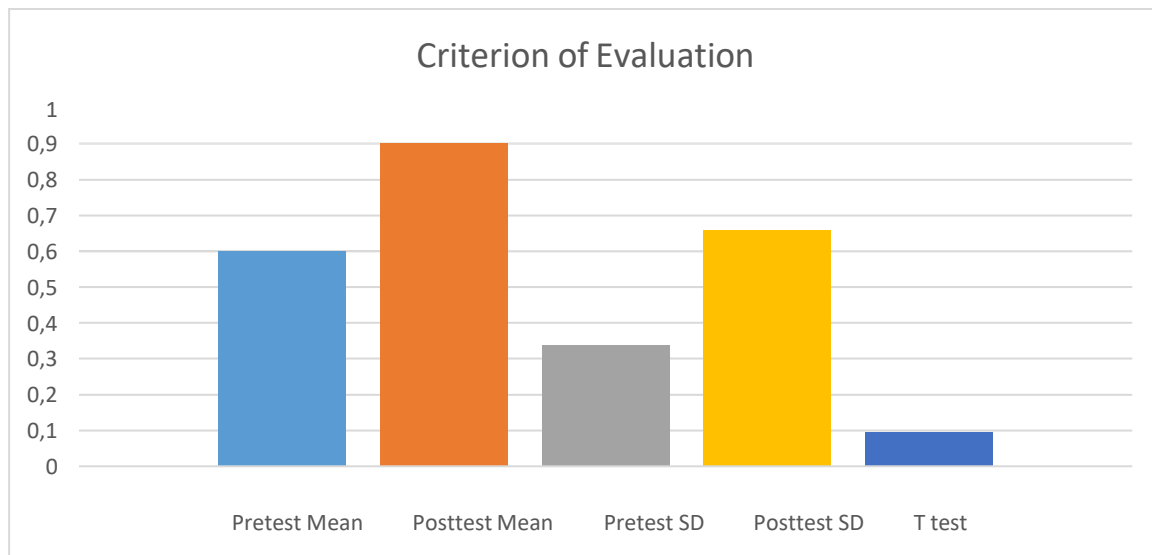


Figure 11. Students' pretest/posttest Scores in the Criterion of Evaluation

The displayed data in table 04 and in figure 11 demonstrate moderate change in students' writing performance in the preset evaluation criterion that is seen in the upgrade between the mean and standard deviation of the posttest ( $M_2 = 0.900$ ,  $SD_2 = 0.660$ ) and the pretest ( $M_1 = 0.600$ ,  $SD_1 = 0.338$ ). The difference between the two descriptive measures ( $M_2 - M_1 = 0.4$ ) might be attributed to the experimental work that was based on critical thinking.

#### 4.1.8. Students' Pretest/Posttest Scores in the Criterion of Interpretation.

The participants registered pretest/posttest scores before and after undergoing the treatment that focused on improving the criterion of interpretation in writing are charted and graphically displayed as follows:

Table 5

*Students' pretest/posttest scores in the criterion of interpretation*

Statistic	Mean <sub>1</sub> Pretest	Mean <sub>2</sub>	SD <sub>1</sub>	SD <sub>2</sub>	T test
Description		Posttest	Pretest	Posttest	

Criterion of Interpretation	0.633	1.000	0.442	0.567	0.060
Difference	0.367		0.125		

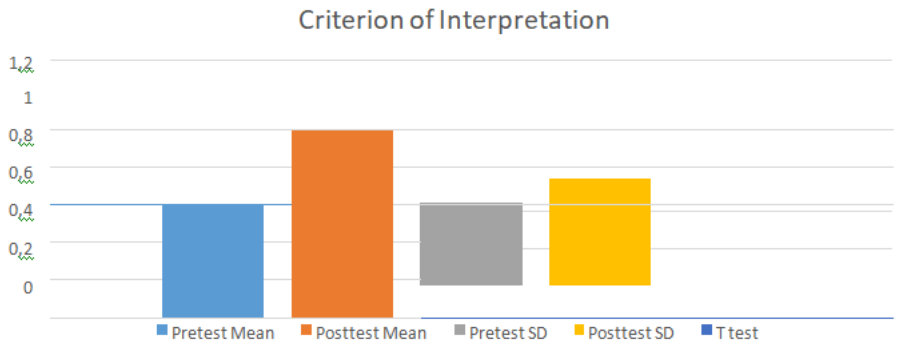


Figure 12. Students’ pretest/posttest Scores in the Criterion of Interpretation

Table 05 and figure 12 give performance summary of the interpretation criterion in the students’ writing. Comparatively, the posttest mean and standard deviation also show a moderate increase as the previous criterion ( $M_2 = 1.000 > M_1 = 0.633$ ,  $SD_2 = 0.567 > SD_1 = 0.442$ ). The results demonstrate that the critical thinking treatment may have had a positive impact on student’s sense of interpretation yet in a moderate manner.

#### 4.1.9. Students’ Pretest/Posttest Scores in the Criterion of Logical Conclusions

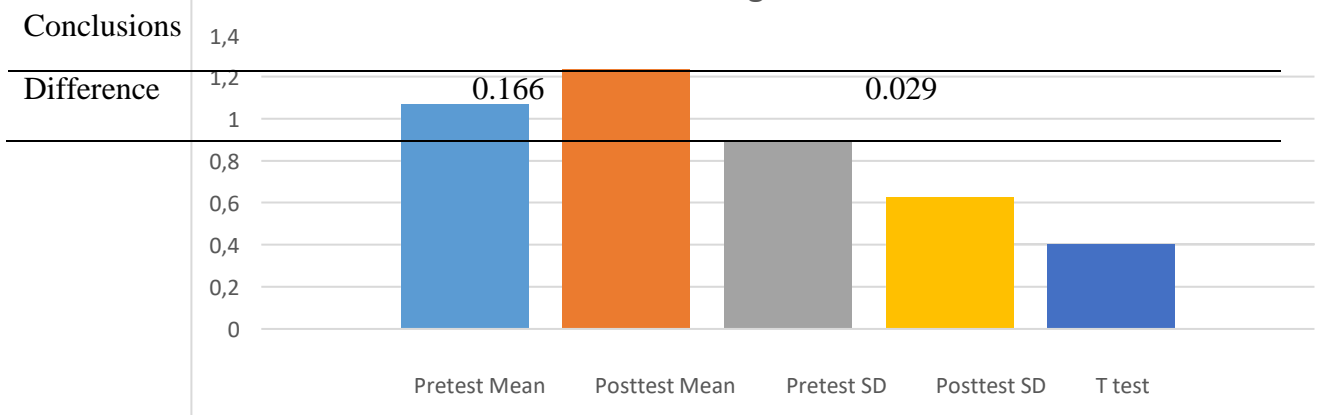
The participants registered pretest/posttest scores before and after undergoing the treatment that focused on improving the criterion of logical conclusions in writing are tabulated and graphically displayed as follows:

Table 6.

Students ‘pretest/posttest scores in the criterion of logical conclusions

Statistic Description	Mean <sub>1</sub> Pretest	Mean <sub>2</sub> Posttest	SD <sub>1</sub> Pretest	SD <sub>2</sub> Posttest	T test
Criterion of Logical Conclusions	1.067	1.233	0.594	0.623	0.403

Figure 13. Students ‘pretest/post



test scores in the criterion of logical conclusions

The outcomes displayed in table 06 and figure 13 provides overview of the treatment’s effect on the logical conclusions criterion in students’ writing. A small effect can be seen in the differences between the means and standard deviation of the two tests ( $M_2 - M_1 = 0.4$ ,  $SD_2 - SD_1 = 0.029$ ), which is also supported by the statistical insignificance of the t test ( $0.403 > 0.05$ ). Hence, the treatment had minor significance on students’ logical conclusions.

**4.1.10. Students’ Pretest/Posttest Scores in the Criterion of Problem Solving Skills.**

The participants registered pretest/posttest scores before and after undergoing the treatment that focused on improving the criterion of problem solving skills in the writing are charted and graphically displayed as follows:

Table 7

*Students’ pretest/posttest scores in the criterion of problem solving skills*

Statistic Description	Mean <sub>1</sub> Pretest	Mean <sub>2</sub> Posttest	SD <sub>1</sub> Pretest	SD <sub>2</sub> Posttest	T test
Criterion of Problem Solving Skills	1.167	1.533	0.617	0.481	0.060
Difference	0.366		-0.136		

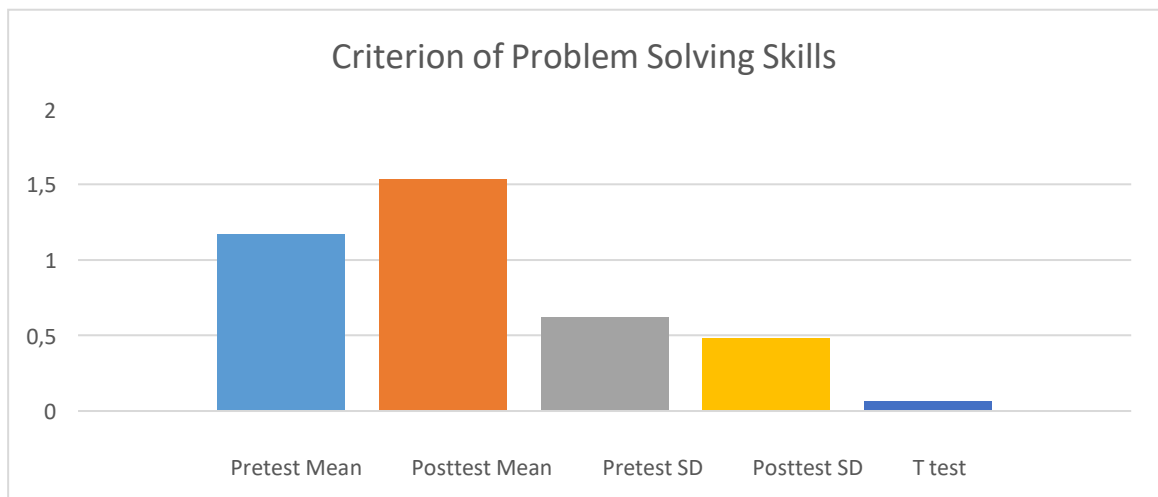


Figure 14. Students’ pretest/posttest scores in the criterion of problem solving skills

The results of problem solving skills criterion are shown in table 07 and displayed in figure 14. They

reveal a modest increase in the students' performance after undergoing the treatment, which is clear in the descriptive details. The descriptive details between the two tests and their difference ( $M_2 - M_1 = 0.366$ ,  $SD_2 - SD_1 = -0.136$ ) give a clear idea about the modest progress degree. Despite its modesty, this progress could be a sign of the treatment's effect on the students' problem solving skills.

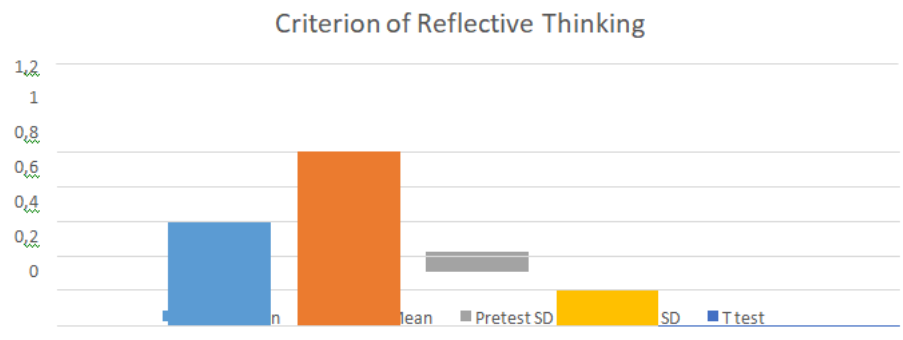
#### 4.1.11. Student s' Pretest/Posttest Scores in the Criterion of Reflective Thinking.

The participants registered pretest/posttest scores before and after undergoing the treatment that focused on improving the criterion of reflective thinking in the writing are charted and graphically displayed as follows:

Table 8

*Students' pretest/posttest scores in the criterion of reflective thinking*

Statistic Description	Mean <sub>1</sub> Pretest	Mean <sub>2</sub> Posttest	SD <sub>1</sub> Pretest	SD <sub>2</sub> Posttest	T test
Criterion of Reflective Thinking	0.600	1.033	0.111	0.186	0.037
Difference	0.433		0.075		



*Figure 15. Students' pretest/posttest scores in the criterion of reflective thinking*

The results in table 08 and in figure 15 exhibit a modest increase in students' reflective thinking. The posttest augmented descriptives ( $M_2 = 1.033 > M_1 = 0.600$ ,  $SD_2 = 0.186$

$>SD_1 = 0.111$ ) show that students' writing reflected that they have become better at drawing the bigger picture and better understanding the details of the writing task. Thus, the critical thinking treatment could be viewed as positively affecting the students' reflective thinking.

#### 4.1.12. Students' Pretest/Posttest Scores in the Criterion of Creativity and Originality

The participants registered pretest/posttest scores before and after undertaking the treatment that focused

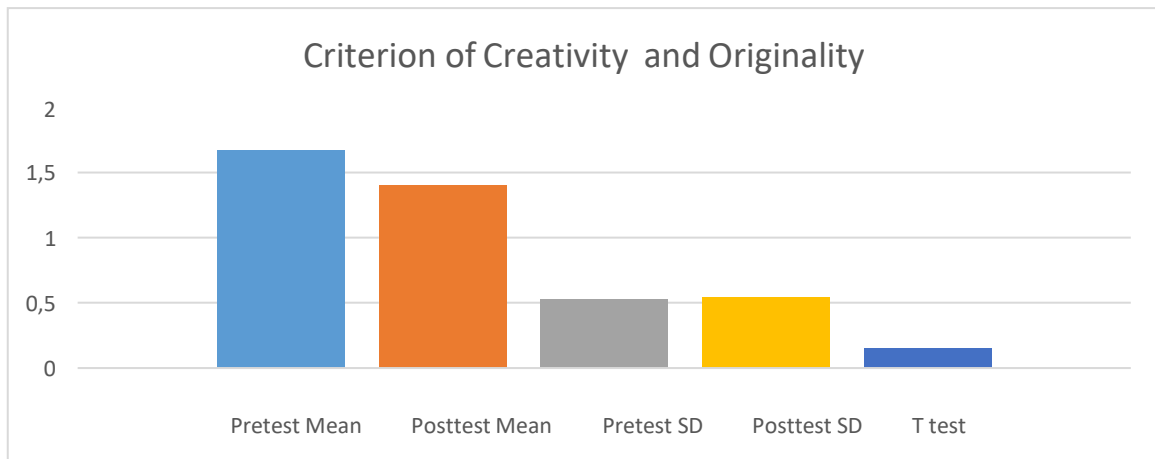
on improving the criterion of creativity and originality in the writing are charted and graphically displayed as follows:

Table 9

*Students' pretest/posttest scores in the criterion of creativity and originality*

Statistic Description	Mean <sub>1</sub> Pretest	Mean <sub>2</sub> Posttest	SD <sub>1</sub> Pretest	SD <sub>2</sub> Posttest	T test
Criterion of Creativity and Originality	1.666	1.400	0.523	0.541	0.150
Difference	-0.266		0.018		

*Figure 16.*  
Students' pretest/posttest scores in the criterion of



creativity and originality

The reported findings in table 09 and in figure 16 show a decrease in students' written performance in terms of creativity and originality. The pretest descriptive scores seems to be higher than that of the posttest ( $M_1 = 1.666 > M_2 = 1.400$ ) and also a non-statistically significant t test ( $0.150 > 0.05$ ). The decrease could lead to the conclusion of the possibility that the treatment was not effective in this regard.

#### 4.1.13. Students' Pretest/Posttest Scores in the Criterion of Drawing Inferences

The participants registered pretest/posttest scores before and after undergoing the treatment that focused on improving the criterion of drawing inferences in the writing are charted and graphically displayed as follows:

Table 10

*Students' pretest/posttest scores in criterion of drawing inferences*

Statistic Description	Mean <sub>1</sub> Pretest	Mean <sub>2</sub> Posttest	SD <sub>1</sub> Pretest	SD <sub>2</sub> Posttest	T test
Criterion of Drawing Inferences	0.533	1.067	0.581	0.704	0.020
Difference	0.534		0.123		

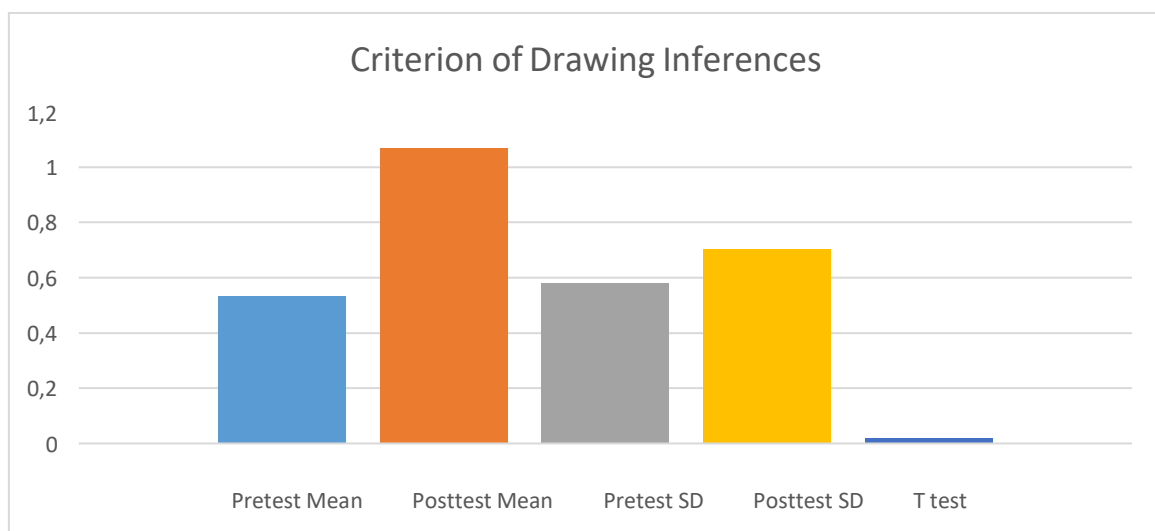


Figure 17. Students' pretest/posttest scores in the criterion of drawing inferences

The findings, reported in table 10 and figure 17, detail on the criterion of inference drawing in students' writing. As can be seen, the posttest ( $M_2 = 1.067$ ,  $SD_2 = 0.704$ ) measures higher than the pretest ( $M_1 = 0.533$ ,  $SD_1 = 0.581$ ) in both mean and standard deviation. The registered differences ( $M_2 - M_1 = 0.53$ ,  $SD_2 - SD_1 = 0.123$ ), and the t test statistical significance ( $0.02 < 0.05$ ) both support, to a certain degree, the critical thinking treatment's effectiveness in raising the students' inference drawing ability.

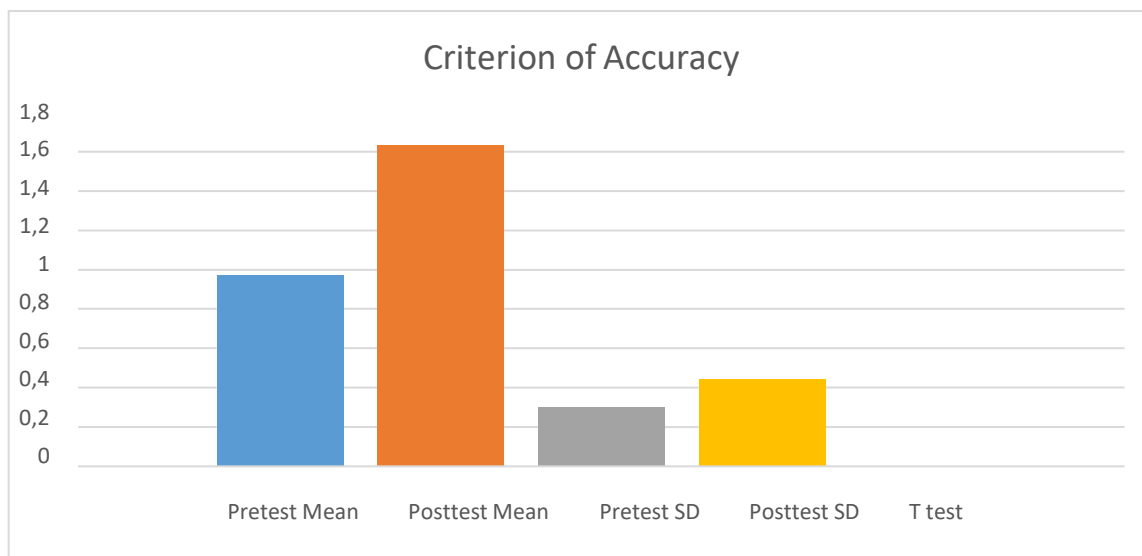
#### 4.1.14. Students' Pretest/Posttest Scores in the Criterion of Accuracy

The participants registered pretest/posttest scores before and after undergoing the treatment that focused on improving the criterion of accuracy in the writing are charted and illustrated follows:

Table 11

*Students' pretest/posttest scores in the criterion of accuracy*

Statistic Description	Mean <sub>1</sub> Pretest	Mean <sub>2</sub> Posttest	SD <sub>1</sub> Pretest	SD <sub>2</sub> Posttest	T test
Criterion of Accuracy	0.967	1.633	0.297	0.441	< 0.001
Difference	0.666		0.144		



*Figure 18. Students' pretest/posttest scores in the criterion of accuracy*

The writing accuracy results are summarized in table 11 and figure 18. What can be observed is that the students made a plausible progress in this regard. The recorded difference between the descriptive measures of both tests ( $M_2 - M_1 = 0.666$ ,  $SD_2 - SD_1 = 0.144$ ) and the t test statistical significance ( $0.001 < 0.05$ ) could be regarded as proof of the progress. Overall, the students made less technical errors after the treatment. The progress could be accredited, with certain confidence, to the critical thinking treatment that the students took part in.

#### **4.1.15. Students' Pretest/Posttest Scores in the Criterion of Cohesion**

The participants registered pretest/posttest scores before and after undergoing the treatment that focused on improving the criterion of cohesion in the writing are tabulated and displayed as follows:

Table 12

*Students' Pretest/posttest Scores in criterion of cohesion*

Statistic Description	Mean <sub>1</sub> Pretest	Mean <sub>2</sub> Posttest	SD <sub>1</sub> Pretest	SD <sub>2</sub> Posttest	T test
Criterion of Cohesion	0.767	1.600	0.320	0.431	< 0.001
Difference	0.833		0.111		

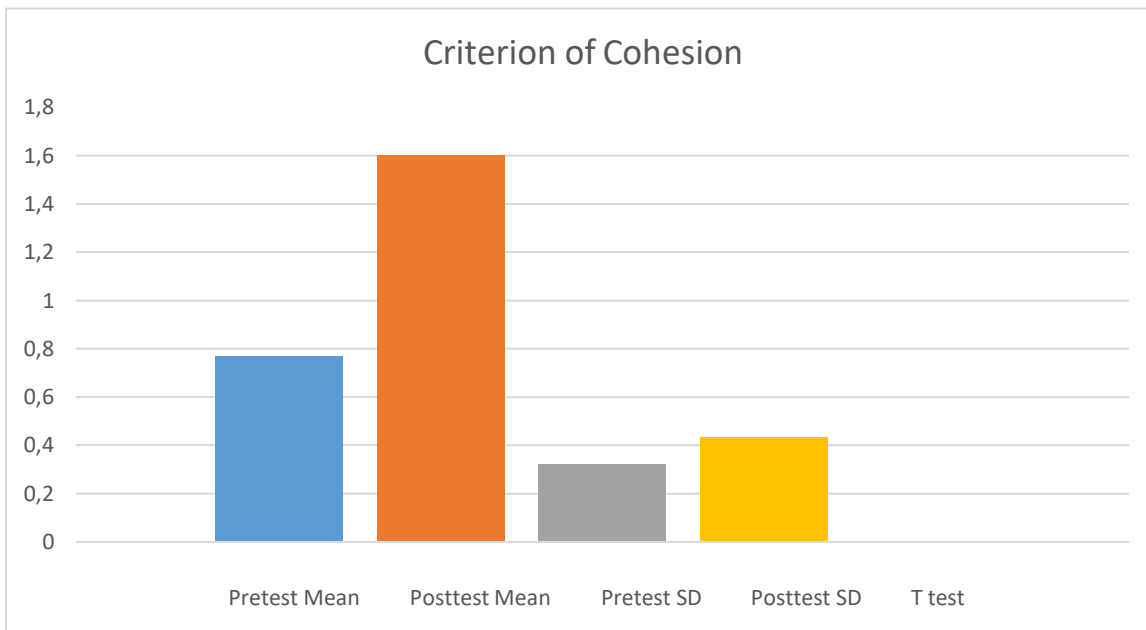


Figure 19. Students' pretest/posttest scores in the criterion of cohesion

The outcomes expressed in table 12 and displayed in figure 19 show significant progress in the students' cohesiveness of writing. A marked high difference between the two tests descriptive measures ( $M_2 - M_1 = 0.833$ ,  $SD_2 - SD_1 = 0.111$ ), and t test statistical significance ( $< 0.001 < 0.05$ ) reveal an important progress level. What can be observed from the results is that more cohesive structures were delivered by the students after experimentation. Thus, this important progress level could be explained as solid evidence of the treatment's effectiveness in raising students' cohesion in writing.

#### 4.2. Results and Discussion

The findings of the quasi-experimental study show that the participants significantly improved in a number of critical thinking standards. Between the pre-test and post-test evaluations, there was progress in all of the criteria including analysis, evaluation, interpretation, logical conclusion, problem-solving abilities, reflective thinking, creativity and originality, drawing inferences, accuracy, and cohesiveness. This shows that the use of critical thinking techniques improved the students' capacity to engage in these cognitive processes in general and

raised their awareness towards critical thinking. Students were given the chance to not only apply their own thinking but also their critical thinking. The students' improved ability to break down complex information, find significant components, and analyze them methodically is highlighted by the observed progress in the analytical criterion. This increase in critical thinking abilities enables students to explore more deeply into the subject at hand and draw valuable conclusions.

The students' improved capacity to evaluate the merits and flaws of arguments, scrutinize the evidence, and reach defensible conclusions is further evidenced by the improvement in assessment and interpretation criteria. This change shows their improved ability to assess information critically and make reasoned decisions; besides the improvement in their logical conclusion and problem-solving abilities implies that the students have become better at using logical reasoning to draw conclusions supported by evidence.

Additionally, they have demonstrated an improved capacity to recognize issues, thoroughly examine them, and put forth workable answers. Students' reflective thinking has improved, which shows that they are more self-aware and actively thinking about their own cognitive processes. This Meta cognitive ability enables individuals to keep an eye on their thoughts, assess their methods, and adapt the appropriate strategies that result in more fruitful critical thinking. The students' increased ability to come up with creative ideas, think outside the box, and approach issues from different points of view are highlighted by the improvements in creativity and originality. This shows that teaching in critical thinking has cultivated their capacity for original thought and the ability to infuse new perspectives into their writing. Moreover, the improvement in accuracy and inference-making shows how better the students are at inferring logical conclusions from the evidence at hand and communicating correct and trustworthy information. Building a solid foundation for good writing and critical thinking requires these abilities.

Finally, the improvement in cohesiveness shows that the students have developed at structuring their writing, planning their thoughts and ensuring that their arguments flow logically. This change enhances the overall efficacy and clarity of their written work.

## **Conclusion**

In conclusion, the quasi-experimental study on the effects of critical thinking on EFL writing revealed significant improvements in a number of critical thinking criteria. The students showed growth in their ability to analyze, evaluate, interpret, draw logical conclusions, solve problems, engage in critical thought, be creative and

original, draw inferences, be accurate, and construct coherent arguments. These results show that the application of critical thinking techniques positively impacted students' writing.

CHAPTER FIVE  
DISCUSSION AND RECOMMENDATIONS

## Chapter Five: Discussion and Recommendations

### Introduction

The goal of this chapter is to revisit the research hypotheses in an effort to discuss them using the highlighted findings in chapters three and four of the present dissertation, it also spotlights some instructional tips and implications about critical thinking in writing specifically in EFL teaching and learning.

### 5.1. Discussion of the Research Hypotheses

**Hypothesis 1:** EFL learners hold positive perceptions towards the use of critical thinking in their writing, students can have different perspectives when it comes to writing, moreover they have positive attitudes towards using critical thinking in language classrooms and they may not object them in their learning practices.

Surprisingly, the hypothesis regarding the positive attitude of EFL students at Chadli Bendjedid University towards critical thinking was confirmed. This observation was evident in the responses obtained from the questionnaire (Q4-Q6), where students openly expressed their favorable disposition towards critical thinking and acknowledged its impact on their writing. Moreover, the researcher observed firsthand the students' engagement and active participation during the treatment session, where they drew upon their personal experiences to effectively communicate their perspectives on a given statement. This indicates that critical thinking is not limited to the classroom but extends to various real-life situations, demonstrating its usefulness and practical benefits for the students.

**Hypothesis 2:** Recognizing the role of critical thinking and actively engaging in its application within the language classroom will significantly enhance EFL learners' proficiency in writing. By incorporating critical thinking skills and strategies, students will be better equipped to produce accurate and coherent written work.

The primary objective of this study was to investigate the effects of critical thinking on the development and enhancement of EFL writing skills among second-year students. The hypothesis posited that significant improvement would be observed in students' writing outcomes following the treatment phase of the quasi-experimental design, indicating the positive impact of critical thinking skills. The findings indeed revealed a notable enhancement in students' critical thinking abilities, emphasizing the importance for teachers to reconsider the integration and instruction of these skills in a well-structured manner.

**Hypothesis 3:** There is a significant effect of critical thinking on EFL writing among EFL learners in

Chadli Bendjedid University. This research would examine the relationship between critical thinking skills and the quality of writing produced by EFL students at Chadli Bendjedid University.

The significance of critical thinking in improving thinking and writing skills, particularly in the context of EFL teaching at Chadli Bendjedid University, cannot be overlooked. Based on the data collected from the questionnaire (Q2-Q9-Q10), it has been hypothesized that critical thinking has a discernible effect on the writing abilities of EFL learners. The findings indicate that critical thinking positively influences their writing process and output. However, it is important to note that some students face challenges in effectively utilizing critical thinking skills, leading to potentially negative impacts on their writing, as was revealed in (Q7). These results highlight the complex nature of critical thinking and the need for further exploration to address the obstacles that students encounter in its application to writing tasks.

## **5.2. Recommendations for Developing EFL Writing through Critical Thinking**

### **5.2.1. Recommendations for EFL Teachers**

#### **5.2.1.1. Fostering critical thinking skills and empowering students and teachers in diverse contexts.**

The study findings suggest that students possess level of critical thinking skills. However and because English is a foreign language for them, their application of critical thinking may be limited, particularly when it comes to unfamiliar topics requiring language proficiency. Nonetheless, it is worth noting that critical thinking can extend beyond the classroom content and can also encompass engaging and entertaining subjects. According to Itmeizeh and Hassan (2020), in order to foster critical thinking skills, it is essential to incorporate real-world topics from various media sources such as magazines, newspapers, television, and YouTube channels into EFL textbooks. By exploring and analyzing media content, students do not only become familiar with academic language but also gain exposure to terminology relevant to sociolinguistics, psycholinguistics, sociopolitical issues, and other authentic subjects that are closely connected to their lives.

#### **5.2.1.2. Problem Solving Skills**

To foster EFL students' writing skills through the lens of critical thinking, teachers can assign tasks that involve thought-provoking questions and require them to analyze various authors' statements and claims. This approach encourages students to seek out reliable information and utilize precise language to effectively communicate their ideas and make compelling arguments. By engaging in such activities, students naturally encounter new vocabulary and gain exposure to different grammatical structures, ultimately facilitating their progress and advancement in writing proficiency.

#### **5.2.1.3. Creating a Supportive Climate in the Classroom**

By emphasizing open-mindedness, arguments, and a range of viewpoints, students can be encouraged to share their ideas and participate in debates so they may think critically and challenge assumptions. Teachers need to support and give students the opportunity to know more about critical thinking and be familiar with, and exchange different thoughts, ideas, and opinions, while evaluating them to figure out the different perspectives of a given context. They can also:

- Provide feedback on critical thinking skills: when assessing students' writing, provide specific feedback on their critical thinking abilities.
- Highlight instances where students have effectively analyzed information, made logical connections, or

presented a well-reasoned argument.

- Offer suggestions for improvement and guide them towards deeper critical thinking.

#### **5.2.1.4. Providing Feedback**

Providing feedback on students' critical thinking abilities when evaluating their writing is also important. Teachers may provide students detailed feedback on their critical thinking capabilities by showing them examples where they have successfully processed information, drawn conclusions from evidence, or presented an argument that is well supported; this may make improvements and point them in the direction of more in-depth critical thinking.

#### **5.2.1.5. Activity: "Critical Thinking Exchange"**

What follows is an example of an activity that teachers can involve in their classes; they can:

- Divide the students into two groups and provide each group with a targeting statement or prompt that requires critical thinking skills.
- Instruct each group to independently write a response to the given statement within a given time frame (around 30 to 35 minutes). Encourage students to employ critical thinking strategies to support their arguments and reasoning.
- Ask the groups to exchange their written responses with the other group. In this exchange, the students will take on the roles of evaluators and correctors. Their task is to carefully assess and evaluate each other's papers based on their understanding of critical thinking, focusing on aspects such as decision-making, logical conclusions, and the clarity of arguments.
- Once the evaluation is complete, have the students return the papers to their respective authors. Then, facilitate a discussion where students can openly discuss the feedback and evaluation they received. Encourage them to share their different perspectives, engage in respectful debates, and attempt to convince others of their own thinking.
- As the teacher, maintain a peaceful and respectful classroom atmosphere, ensuring that all opinions are valued and carefully considered to prevent misunderstandings. Take on the role of a facilitator, guiding the students and keeping them focused throughout the activity.

Through this activity, students will actively engage in critical thinking as they write their responses,

evaluate their peers' work, and participate in discussions. Group discussions promote deep learning and critical thinking by encouraging students to clarify their ideas and gain insights from others (Dallimore, Hertenstein, & Platt, 2008). The activity aims to raise their awareness of viewing issues from different perspectives while also providing an opportunity to strengthen their abilities to present and defend their own thoughts effectively.

### **5.2.2. Recommendations for Students**

The Students should practice active reading so they can develop a habit of critical thinking by asking questions, highlighting important details, and comments. Noting any presumptions, prejudices and by reading inferences; students will check whether they are valid or not , and reading will enable students to draw inferences and make judgments based on what they have read , which might look like it is a mental activity were students are going to fill the gaps of the inconvenient parts.

#### **5.2.2.1. Reflecting on their own Writing**

When writing an assignment, students can reflect on their own writing process, assess their writing and how they ended up making their decisions about particular parts. This will help them analyze their reasoning and find out about their strengths and weaknesses, by doing this many times they can improve their critical thinking skills and the quality of their writing.

### **Conclusion**

We have attempted throughout this chapter to discuss the hypotheses of this research and suggest some instructional tips and implications that we thought important for developing learners' critical thinking, which in turn plays a significant role in upgrading their writing.

## General Conclusion

In today's educational landscape, critical thinking plays a vital role in English as (EFL) learning, both inside and outside the classroom. The primary objective of this study is to explore and demonstrate the effects of critical thinking on EFL writing and how it can enhance students' writing skills. The investigation took place at Chadli Bendjedid University in El Tarf. The study aimed to emphasize the significance of integrating critical thinking skills and strategies in EFL classrooms, particularly for promoting written expression. To achieve the research goals and test the study hypotheses, data were collected through a questionnaire and a quasi-experimental design. The questionnaire revealed that students have an awareness of critical thinking and its importance. However, its implementation in EFL classrooms at Chadli Bendjedid University is limited.

For students, the study demonstrated their awareness of the positive impact of critical thinking on their writing and learning processes. A quasi-experimental design was conducted with a group of second-year EFL students to examine the influence of integrating critical thinking skills and strategies in writing classes. The statistical results revealed a significant difference in the students' mean scores between pre and posttests. This indicates the positive achievements students were able to produce after receiving the critical thinking treatment, thereby confirming the research hypotheses. Based on the study's objectives, some recommendations have been proposed for both teachers and learners aiming to develop students' critical thinking abilities and enhance their writing skills in the future.

While the researcher successfully achieved the expected results, it is important to acknowledge the limitations of the study. The main limitation was the small number of participants, which arose due to various reasons such as timing constraints, disinterest, and students' fear and hesitation. This limitation prevents generalizing the results to a larger sample of EFL students. Additionally, the study could have benefited from a more conducive environment, a larger sample size, and additional courses to further investigate the effectiveness of the treatment. These limitations highlight the need for future research to consider these factors in order to obtain more reliable and valid results within a less restrictive context.

By addressing these limitations and building upon the findings of this study, future research can contribute to a better understanding of the relationship between critical thinking and EFL writing, leading to improved pedagogical practices and more effective learning outcomes.

## References

- Afrin, N. (2014). Reasons of problems in writing class in the tertiary level of Bangladesh. *International Journal of Humanities and Social Science Invention*, 3(11), 41-48.  
Retrieved from: [www.ijhssi.org](http://www.ijhssi.org)
- Belcher, D., & Hirvela, A. (Eds.). (2019). *The Routledge handbook of English for academic purposes*. Routledge
- Beyer, B. K. (1987). *Practical strategies for the teaching of thinking*. Boston, MA: Allyn and Bacon. Retrieved from: <https://archive.org/details/practicalstrateg00bey>
- Brami, P. C., Bernard, R. M., Borokhovski, E., Wade, C. A., Surkes, M. A., Tamim, R., & Zhang, D. (2008). Instructional interventions affecting critical thinking skills and dispositions: A stage 1 Meta-Analysis. *Review of Educational Research*, 78(4), 1102-1134. Retrieved from: [https://www.researchgate.net/publication/303188900\\_Instructional\\_interventions\\_affecting\\_critical\\_thinking\\_skills\\_and\\_dispositions\\_critical\\_thinking\\_and\\_science\\_education](https://www.researchgate.net/publication/303188900_Instructional_interventions_affecting_critical_thinking_skills_and_dispositions_critical_thinking_and_science_education)
- Brookfield, S. D., & Preskill, S. (2019). *Teaching for Critical Thinking: Tools and Techniques to Help Students Question Their Assumptions* (2<sup>nd</sup>ed.). Jossey-Bass
- Chance, P. (1986). *Thinking in the classroom: A survey of programs*. USA: Teacher College Press. Retrieved from: <https://archive.org/details/thinkinginclassr00paul/page/n5/mode/2u>
- Chen, Y. M., & Chou, C. F. (2018). The relationship between critical thinking and creative writing of EFL learners. *Journal of Language Teaching and Research*, 9(3), 526-532.  
[doi: 10.17507/jltr.0903.08](https://doi.org/10.17507/jltr.0903.08)

- Cottrell, S. (2005). *Critical thinking skills: Developing effective analysis and argument*. China: Palgrave Macmillan. Retrieved from:  
<http://libgen.rs/book/index.php?md5=7C1CBDDAB014552E3A14ADD2D8715C42>
- De Bono, E. (1992). *Serious creativity: Using the power of lateral thinking to create new ideas*. New York, NY: HarperCollins Publishers. Retrieved from:  
<http://libgen.rs/book/index.php?md5=473BEC9746B86B32D70036AA098E2E5D>
- Dewey, J. (1916). *Democracy and education*. New York, NY: The Macmillan Company
- Dong, T., & Yue, L. (2015). A Study on critical thinking assessment system of college English writing. *English Language Teaching*, 8(11), 176-182. Retrieved from:  
<https://doi.org/10.5539/elt.v8n11p176>
- Elbow, P. (1981). *Writing with power: Techniques for mastering the writing process*. Oxford University Press. Retrieved from:  
<http://libgen.rs/book/index.php?md5=FA086257A6C8F45D7EC779B410CBC451>
- Ellerton, P. (2018). *Why We Need to Teach Critical Thinking – and How to Do It*. The Conversation. Retrieved from <https://theconversation.com/why-we-need-to-teach-critical-thinking-and-how-to-do-it-90245>
- Ennis, R. (2015). *The nature of critical thinking: Outlines of general critical thinking dispositions and abilities*. Retrieved from  
<http://www.criticalthinking.net/longdefinition.html>
- Ennis, R. H. (1987). A taxonomy of critical dispositions and abilities. In J. B. Baron, & R. J. Sternberg (Eds.), *Teaching thinking skills: theory and practice* (pp. 9-26). New York: Freeman. Retrieved from: <https://archive.org/details/teachingthinking00hing>

Ennis, R. H. (1996). *Critical thinking*. Upper Saddle River, NJ: Prentice Hall. Retrieved from: <https://archive.org/details/criticalthinking0000enn>

Facione, P. A. (2006). *Critical thinking: What it is and why it counts*. Insight Assessment. Retrieved from:

[https://scholar.google.com/citations?view\\_op=view\\_citation&hl=fr&user=7oqEut0AAAJ&citation\\_for\\_view=7oqEut0AAAJ:d1gkVwhDpl0C](https://scholar.google.com/citations?view_op=view_citation&hl=fr&user=7oqEut0AAAJ&citation_for_view=7oqEut0AAAJ:d1gkVwhDpl0C)

Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. *College Composition and Communication*, 32(4), 365-387. Retrieved from:

<https://blogs.baruch.cuny.edu/baruchteachingpracticum2015/files/2015/08/A-Cognitive-Process-Theory-of-Writing.pdf>

Glaser, E. M. (1941). *An experiment in the development of critical thinking*. New York, NY: Teachers College, Columbia University.

Houston, S. D. (2011). Critical thinking activities for the language classroom. *ELT Journal*, 65(4), 363-374. [doi:10.1093/elt/ccq020](https://doi.org/10.1093/elt/ccq020)

Houston, S. D. (2004). *The first writing: Script invention as history and process*. Cambridge University Press. Retrieved from:

<http://libgen.rs/book/index.php?md5=68DD4460382E1E03E9B1921A799BF6D6>

Huang, S. (2016). Teaching critical thinking in EFL writing classes. *English Language Teaching*, 9(6), 77-84. [doi:10.5539/elt.v9n6p77](https://doi.org/10.5539/elt.v9n6p77)

- Indah, R. N. (2017). Critical thinking, writing performance, and topic familiarity of Indonesian EFL learners. *Journal of Language Teaching and Research*, 8(2), 229–236. Retrieved from:  
[https://www.researchgate.net/publication/314294367\\_Critical\\_Thinking\\_Writing\\_Performance\\_and\\_Topic\\_Familiarity\\_of\\_Indonesian\\_EFL\\_Learners](https://www.researchgate.net/publication/314294367_Critical_Thinking_Writing_Performance_and_Topic_Familiarity_of_Indonesian_EFL_Learners)
- Karimi, A., & Behzadpoor, F. (2017). The impact of critical thinking on developing argumentative essays by Iranian EFL learners. *Journal of Language and Translation*, 7(2), 37-47.
- Kato, S., & Kato, Y. (2020). *Teaching critical thinking in EFL classes*. Springer.
- Kelley, D. (2014). *The art of reasoning: An introduction to logic and critical thinking*. New York, NY: Oxford University Press. Retrieved from:  
<http://libgen.rs/book/index.php?md5=B3288EA736070FC73FB93E3003D4DDD7>
- Klein, P. D. (2004). Constructing scientific explanations through writing. *Instructional Science*, 32(3), 191-231. [doi:10.1023/B:TRUC.0000024189.74263.bd](https://doi.org/10.1023/B:TRUC.0000024189.74263.bd)
- Kohzadi, H., Azizmohammadi, F., & Samadi, F. (2014). Is there a relationship between critical thinking and critical reading of literary texts: A case study at Arak University (Iran). *International Letters of Social and Humanistic Sciences*, 33, 63-76. Retrieved from:  
[https://www.researchgate.net/publication/279743083\\_Is\\_there\\_a\\_Relationship\\_between\\_Critical\\_Thinking\\_And\\_Critical\\_Reading\\_of\\_Literary\\_Texts\\_A\\_Case\\_Study\\_at\\_Arak\\_University\\_Iran](https://www.researchgate.net/publication/279743083_Is_there_a_Relationship_between_Critical_Thinking_And_Critical_Reading_of_Literary_Texts_A_Case_Study_at_Arak_University_Iran)

Kurland, D. J. (2000). *Critical reading vs. critical thinking*. In how language really works:

The fundamentals of critical reading and effective writing. Retrieved March 23, 2009,  
from [http://www.criticalreading.com/critical\\_reading\\_thinking.htm](http://www.criticalreading.com/critical_reading_thinking.htm)

Lamott, A. (1994). *Bird by bird: Some instructions on writing and life*. New York, NY:

Anchor Books. p. 12. Retrieved from:

<https://archive.org/details/birdbybirdsosomein00lamo>

Lin, Q., & Zhang, L. (2022). The effects of critical thinking instruction on EFL writing: A

meta-analysis. *Frontiers in Psychology*, 13, 851120. [doi:10.3389/fpsyg.2022.851120](https://doi.org/10.3389/fpsyg.2022.851120)

Nosich, G. (2012). Developing critical thinking skills in students: A mandate for higher

education in the 21st century. *Journal of Developmental Education*, 37(2), 56-57.

Padget, S. (2013). *Creativity and critical thinking*. New York: Routledge. Retrieved from:

<http://libgen.rs/book/index.php?md5=F8F83552C077E8837457562680AB4518>

Paul, R., & Elder, L. (2015). Toward an integrated approach to language, culture and

communication in the foreign language classroom. In R. W. Paul., L. Elder & T.

Bartell (Eds.), *California teacher preparation for instruction in critical thinking:*

*Research findings and policy recommendations* (pp. 1-5). Sacramento, USA:

Foundation for Critical Thinking. Retrieved from:

<https://www.criticalthinking.org/pages/a-brief-history-of-the-idea-of-critical-thinking/408>

Paul, R., & Elder, L. (2009). *Critical thinking: Tools for taking charge of your learning and*

*your life*. London, England: Prentice Hall

- Paul, R., & Elder, L. (2021). *Critical thinking: Tools for taking charge of your learning and your life* (4<sup>th</sup>ed.). Maryland: Rowman & Littlefield. Retrieved from:  
[https://books.google.dz/books?id=MXZPEAAAQBAJ&printsec=frontcover&hl=fr&source=gbs\\_ge\\_summary\\_r&cad=0#v=onepage&q&f=false](https://books.google.dz/books?id=MXZPEAAAQBAJ&printsec=frontcover&hl=fr&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false)
- Quitadamo I. J, Kurtz M. J. (2007). Learning to improve: using writing to increase critical thinking performance in general education biology. *CBE Life Sci Educ. Summer*, 6(2), 140-54. Retrieved from:  
<https://europepmc.org/backend/ptpmcrender.fcgi?accid=PMC1885902&blobtype=pdf>
- Rivard L. P. (1994). A review of writing to learn in science: implications for practice and research. *J. Res. Sci. Teach*, 31(9), 969–983. <https://doi.org/10.1002/tea.3660310910>
- Robinson, K. (2011). *Out of our minds: Learning to be creative* (2<sup>nd</sup>ed.). USA: John Wiley & Sons. Retrieved from:  
<http://libgen.rs/book/index.php?md5=232A2F3E013A36258C181A2C84A3D151>
- Siegel, H. (1988). The teachability of critical thinking. *Teaching Philosophy*, 11(2), 165-184.  
[doi:10.5840/teachingphilosophy1988112165](https://doi.org/10.5840/teachingphilosophy1988112165)
- Tapper, J. (2004). Student perceptions of how critical thinking is embedded in a degree program. *Higher Education Research and Development*, 23(2), 199-222. Retrieved from:  
[https://www.researchgate.net/publication/240533830\\_Student\\_perceptions\\_of\\_how\\_critical\\_thinking\\_is\\_embedded\\_in\\_a\\_degree\\_program](https://www.researchgate.net/publication/240533830_Student_perceptions_of_how_critical_thinking_is_embedded_in_a_degree_program)
- Tsui, L. (2002). Fostering critical thinking through effective pedagogy. *The Journal of Higher Education*, 73(6), 740-763. Retrieved from:

[https://www.researchgate.net/publication/345768460\\_Fostering\\_Critical\\_Thinking\\_thr](https://www.researchgate.net/publication/345768460_Fostering_Critical_Thinking_through_Effective_Pedagogy_Evidence_from_Four_Institutional_Case_Studies)

[ough Effective Pedagogy Evidence from Four Institutional Case Studies](#)

Weigle, S. C. (2018). *Assessing writing*. Cambridge, England: University

Press. Retrieved from:

[http://libgen.rs/book/index.php?md5=6680DD0ED2B475D06195ECD  
EDAEE9C5E](http://libgen.rs/book/index.php?md5=6680DD0ED2B475D06195ECDEDAEE9C5E)

Zeng, M. R. (2012). Argumentative writing and the cultivation of critical thinking ability.

*Education Teaching Forum*, 23, 67-70.

## Appendix 1: Student's Questionnaire

### Students' Questionnaire

This questionnaire is designed to track and understand the effects of critical thinking on EFL writing among second year students at Chadli Ben Djedid University. This is an anonymous questionnaire, which means all of your answers and information will be, your opinions are valued, and thank you in advance for your time and honesty.

-Kawter Laiche

**Please answer the following questions by ticking the appropriate answer according to you.**

1. Critical thinking in writing means:

- Carefully considering an idea and evaluating the evidence supporting it to see if it is convincing.
- Writing for the audience, which encourage you of their needs, and eventually you will develop your repertoire.
- Thinking about your own thinking, by re-reading and drafting, and prioritizing the important ideas.
- Organizing your ideas thoughtfully.
- Stating facts instead of opinions.

2. Critical thinking requires you to use your ability to reason. It is about

beingan active learner rather than a passive recipient of information.

**Do you agree with this statement?** Please explain

.....

.....

.....

**3. Do you think you are good at critical thinking?**

Yes

No

**4. When you are asked to write critically do you ask yourself about what are you aiming to achieve?**

Yes

No

**5. In critical thinking, which one of these strategies is applied by you? ( you can choose more than one )**

- Brainstorming, and outlining
- Interpret: Explain the significance or meaning of a ‘thing’ in a specific content or to a specific audience. Similar to ‘translate’ but (generally) with more cognitive demand.
- Separate the subjective from the objective
- Inference: by drawing a reasonable conclusion based on the best available data.
- Separating the causes and effects.
- Supporting your opinions with evidence.

**Other:**

.....

.....

.....

**6. As a second year student have you ever received any previous training as far as critical thinking is concerned in written expression?**

Yes

No

**If yes, how was your experience and how was it beneficial for you? Please explain.**

.....  
.....  
.....

**7. Do you usually face any difficulties when you are asked to write a critical essay or a paragraph? Please explain.**

.....  
.....  
.....

**8. As a student when you are writing an argumentative essay or a paragraph, and you are asked to provide comments and critiques, what is the first thing that comes up to your mind? Please explain.**

.....  
.....  
.....

**9. Which one of these skills do you think you are good at:**

-Observation

- Analysis

-Reasoning

- Judgment

- Decision making

-persuasion

**10. How does critical thinking influence your writing production?** Please explain

.....

.....

.....

## **Appendix 2:**

Critical thinking is a deliberate and self-regulatory judgmental process that involves understanding, analyzing, evaluating, and drawing conclusions from data, theories, approaches, standards, and context. Questioning presumptions, taking into account different viewpoints, and using facts to support or refute arguments are all components of critical thinking. It is an essential life skill for making decisions in a variety of contexts, such as education, business, and personal decision-making.

### **The key Components of Critical Thinking are:**

Analysis, evaluation, problem solving, decision-making and creative thinking

- Purpose: clearly identifying the purpose of your thinking or the task at hand. Example: Before starting a research paper, clearly define the purpose of the paper, such as to persuade readers or to inform them.
- Questions: asking relevant and significant questions to guide your thinking. Example: When reading a news article, ask yourself questions such as "What is the source of this information?" and "What biases might the author have?"
- Information: seeking and evaluating relevant and credible information. Example: When researching a topic, evaluate sources for credibility and relevance to ensure that the information is reliable. And can be useful.
- Interpretation: considering multiple perspectives and interpretations to reach a

conclusion. Example: When analyzing a work of literature, consider the author's background, the historical context, and various interpretations of the text.

- Concepts: identifying and understanding key concepts and ideas. Example: When studying, writing expression understanding the concept of writing and the skills the strategies is crucial to understanding how it works .

- Assumptions: recognizing and analyzing underlying assumptions and biases. Example: When reading an article about politics, recognize the author's biases and how they might affect their writing.

- Implications: considering the implications and consequences of your thinking. Example: When making a decision, consider the potential outcomes and consequences of each option.

- Points of View: considering and evaluating different points of view and perspectives. Example: When discussing a controversial topic, consider the viewpoints of those who disagree with you to gain a broader understanding of the issue.

Critical thinking and critical writing are two related skills that are essential for academic and professional success.

Critical writing is the process of conveying and expressing ideas and arguments in writing in a clear, succinct, and well-supported way, It entails backing up one's claims with facts and logic and using evidence, and it calls for in-depth knowledge of the subject matter and the capacity to persuade an audience of one's viewpoints.

These two skills worked together by assisting authors in the analysis and evaluation of information, the identification of knowledge gaps, and the development of persuasive arguments, critical thinking informs critical writing. Critical writing, in turn, aids in the development and

reinforcement of critical thinking abilities by giving one the chance to put them into practice, to structure and make sense of ideas, and to get feedback on the strength of their arguments. Critical writing allows us to express these judgments clearly and persuasively to others.

Example of how critical thinking and critical writing work together is in the field of journalism. In journalism, critical thinking is essential for evaluating sources, assessing the validity of information, and presenting accurate and objective reporting. Critical writing is then used to communicate these findings to the public in a clear and engaging way.

For instance, a journalist may use critical thinking to investigate a particular news story, analyzing different sources of information, checking for biases, and evaluating the credibility of witnesses. Through critical writing, they can then craft a compelling article that presents the facts in a clear and accessible manner, while also conveying the nuances and complexities of the story.

## **Appendix 3:**

### **The Second Session**

#### **Strategies for Critical Thinking:**

- Analysis of thought: involves breaking down thinking into its component parts, such as assumptions, evidence, and conclusions, in order to understand how a particular argument or idea is constructed.
- Identifying and challenging assumptions: One of the key elements of critical thinking is being able to recognize the assumptions that underlie an argument or idea, and then questioning whether those assumptions are valid.
- Identify and clarify the problem: Critical thinkers are able to recognize and describe the specifics of the issue or problem they are facing. This entails reducing complicated problems down into simpler components, recognizing any underlying presumptions or biases, and clearly and succinctly articulating the issue.
- Gathering information: Research studies, news articles, personal observations, and conversations with others are just a few of the sources that critical thinkers might gather and assess information from.
- Consider multiple perspectives: In order to reach a well-informed conclusion, critical thinkers are able to assess the advantages and disadvantages of several viewpoints on a subject.
- Draw logical conclusions: Critical thinkers are able to make decisions based on information and evidence, they have obtained and carefully considered.
- Effective communication: Critical thinkers can convey their thoughts and conclusions

both verbally and in writing.

- Reflecting on thinking: entails recognizing, and being aware of your own thought processes and considering ways to enhance them.

### **Critical thinking skills**

Interpretation: The capacity to comprehend and articulate the significance of data and arguments.

- Analysis: The capacity to dissect facts and arguments into their component elements and look at how they relate.

- Evaluation: The capacity to judge the reliability and applicability of facts and arguments drawing inferences based on the evidence at hand is known as inference.

- Explanation: The capacity to succinctly and clearly state the justifications for your judgments.

- Self-regulation: The capacity to keep an eye on one's own thought processes, recognize and correct errors, and adjust one's strategy as necessary.

- Open-mindedness: The capacity to take into account various viewpoints and assess arguments without bias or prejudice.

- Problem-solving skills include the capacity to recognize and categorize issues, come up with and weigh potential solutions, and decide on the best course of action.

### **Critical writing strategies**

- Identifying the "So what?" for a given text or idea, ask yourself "So what?" This exercise can help you to identify the significance or relevance of the text or idea to your broader understanding of a topic or issue.

- Creating a Dialogue: Establish a discussion between two opposing points of view on a particular problem or subject. You can engage with other viewpoints and acquire a more complex knowledge of the problem with the aid of this issue.

- Understanding Assumptions: Recognize the presumptions that underlie a claim or concept. Consider what the author is assuming and what presumptions must be true for the argument to be valid. You can use this activity to develop your ability to analyze an argument or viewpoint.

- Use clear and precise language: In critical writing, express your ideas and arguments. Avoid vague or ambiguous language and use specific examples and evidence to support your points.

- You should consider and address potential objections before making your argument in order to ensure that it is rational and supported by facts, and your argument should be supported by evidence and reasoning,

- Be open to new ideas and perspectives: Critical writing requires an open mind and a willingness to consider new ideas and perspectives.

## Appendix4

### The Checklist

➤ **The items on the checklist represent skills and strategies for engaging in critical thinking, pick the ones you are familiar with by using this mark “✓”**

Determine and describe the issue or problem.

Collect data and proof from dependable sources.

Analyze the data and supporting evidence to find trends and connections.

Analyze and evaluate the information and evidence's veracity and applicability.

Draw conclusions and make reasoned judgments based on evidence and analysis.

Think about various stances and viewpoints.

Create and take into account alternate approaches or solutions.

Based on the data and analysis, reach rational findings and decisions.

Use clear communication to explain your thinking and findings.

Asking questions.

Defining a problem.

Examining evidence.

Analyzing assumptions and biases.

Avoiding emotional reasoning.

Avoiding oversimplification.

Considering all interpretations.

Using higher level thinking skills; analyzing, evaluating and reaching creative solutions for problems.

When writing your assignment work, reread and review it frequently.

**\* If you cannot answer yes to any of the below questions your work may be missing evidence of critical thinking. Refer to this checklist to help you by using this mark “✓”**

Do you read actively, without skipping the details, ask questions and make connections to other readings or experiences?

Do you analyze the arguments, and evaluate the evidence that supports it?

Did you use the appropriate use of language for your audience?

Have strengths and weaknesses of the evidence been evaluated?

Are you clear about your conclusion?

Do you revise and edit your writing, while also focusing on the clarity and coherence?

Did you consider different viewpoints that are related to the topic?

When writing critically do you think creativity to come up with solutions to problems?

Do you Reflect on your own thinking and evaluate if it is objective and logical?

Do you use reliable sources to gather information and evidence to support your argument?

Do you organize your thoughts, develop a clear thesis statement?

Do you break down complex information into manageable parts to understand its

meaning?

When writing critically, do you choose solutions that align with values and goals?

## Appendix 5:

### The Activity

"Learning a new language is more effective when you immerse yourself in the culture of that language."

- What evidence supports this claim?

- What assumptions are supporting this claim? For example, does it assume that language and culture are closely connected? Does it assume that language learning is primarily about communication?

- Is the reasoning correct in this statement?

- What evidence supports this claim?

Numerous studies and research articles provide evidence in favor of the idea that becoming immersed in the culture of a new language increases the effectiveness of language learning.

Connection between Language and Culture: Numerous linguistic research have emphasized the tight connection between language and culture. Language and cultural behaviors, ideas, and values are closely related. Language competency is improved when learners fully immerse themselves in the culture associated with a language. This helps them understand the language's subtleties, idioms, and social norms

Communicative Competence: Learning a language involves more than just picking up grammar and vocabulary; it also involves being able to communicate effectively. Learners can acquire sociolinguistic and pragmatic abilities in addition to linguistic proficiency by immersing themselves in the culture. They acquire the ability to negotiate cultural conventions, modify their

language use for various situations, and effectively converse with native speakers.

- What assumptions are supporting this claim? For example, does it assume that language and culture are closely connected? Does it assume that language learning is primarily about communication?

This claim is predicated on the notions that language and culture are intertwined and that learning a language entails more than just studying grammar. The assertion also makes the assumption that learners receive rich and relevant linguistic input through immersive activities, enabling more comprehensive language development.

- Is the reasoning correct in this statement?

- In general, the statement's logic is sound. Immersion in the culture offers students a contextually rich setting that fosters a deeper comprehension and language learning. However, it is crucial to remember that learning a language is a complex process that is influenced by a number of variables, and that different learners may have different preferences and learning styles.

## Appendix 6:

### General instructions

**\* Here are some general instructions that can help students develop critical thinking skills:**

\*First you need to understand the topic, and the problem before attempting to solve any problem, Take time to analyze the problem, identify its components, and determine what is being asked.

\*When presented with information or arguments, it is important to evaluate the evidence presented. Consider the source of the information, the quality of the evidence and its real

\*Identify assumptions: Many arguments are based on assumptions that may not be explicitly stated. It is important to identify these assumptions and evaluate whether they are valid or not.

\*Recognize your own biases. Everyone has them, and they can influence how you view facts and arguments. It's critical to be aware of our own prejudices as well as those of others and to judge arguments on their own merits as opposed to our preconceived beliefs.

\*Apply logic: Critical thinking requires the capacity to apply logic to assess claims and supporting data. Think about if the evidence offered bolsters the claim being made and whether any logical errors are there.

\*Alternative viewpoints should be taken into account: Critical thinking entails weighing various viewpoints and assessing them in order to reach a well-informed conclusion. Think about several viewpoints and assess their advantages and disadvantages, as well as their strengths and weaknesses.

\*Draw inferences: Formulate a well-reasoned conclusion based on the arguments and information presented.

\* Use evidence to support your argument, and evaluate the quality and relevance of the evidence.

## **Appendix 7**

### **The Pretest**

Max was an 18-year-old boy. His father died in a car accident and the driver had run away right after hitting him. Days later, the fugitive was caught by the police, but wasn't punished as he should have been because he was rich enough to hire the best lawyers in town. This was one of the reasons that made Max hate rich people. Max's mom was a waitress at a restaurant near their place. One day, while Max was chilling at home watching TV, he heard his mom walking in. She sounded like she was trying not to make noise so Max wouldn't notice her because she thought he was sleeping in his room. Max thought someone was sneaking in and trying to rob the house, so he quietly picked up the baseball bat and walked towards the door. He was so confused to find out that it was his mom. She was clearly kind of dirty as if someone had thrown food on her. He asked her what had happened but she didn't want to cause him any problems because she knew that Max had anger issues. She told him it was just an accident, but he obviously didn't believe her. He headed towards the restaurant and asked his mom's coworkers about what had actually happened. At first, none of them answered him, but then one of them stepped out and told him everything. It turned out that the restaurant had been hosting some important customers; his mom took their order to the chef, however, the chef made a mistake in one of the orders. The mom took the orders to the customers, one of whom got really angry forgetting the wrong order and blamed the mom for that. He was too rude to her and went too far to even spill the food on her. When Max heard the story he was so mad and pissed off, but he could do nothing about it because the customers had already left by then. Max decided to start looking for a job in order to help his mom with the bills so she wouldn't have to work that hard. Because of his young age and lack of experience, nobody wanted to hire him. He got so

depressed because he saw himself as if he was a burden to his mom. Max had some bad company at that time, his friends were thinking of robbing a rich man's house a couple of blocks from their neighborhood. Because of his hatred for rich people, he decided to go with them.....

Questions:

- Complete the story
- Depending on your own morals and values, do you agree with what max started doing?

Choose a title for the story.

## Appendix 9:

### The Posttest

Once upon a time, there was a girl named jasmine who was known for her honesty and integrity. She always told the truth, no matter what, and her friends and family trusted her completely. But one day, jasmine started to feel like she was living a boring and uneventful life. She felt like she was missing out on all the fun that her friends were having, and she started to crave excitement and adventure. One night, jasmine went out with some friends to a party. They were playing video games and having a good time, but when jasmine's parents called to check in on her, she lied and told them she was at a friend's house studying. This lie made jasmine feel powerful and free, and she started to lie more and more often. She lied to her parents about where she was going and who she was with, and she lied to her friends about her experiences and accomplishments, however jasmine felt like she was not hurting anyone with her lies, because if she did, she would have not been able to gain all that caring and love from her surroundings

.....  
 .....  
 .....

- Complete the story
- Do you agree with what jasmine started doing?
- Explain in at least 5 lines
- How can we detect and prevent lying, and what strategies can we use to encourage honesty and transparency?
- Some people from different cultures and depending on their values and beliefs see that " lying

is okay “What are the reasons or justifications that some people may have for seeing lying as okay, and what are the potential consequences of this belief?

- What motivates people to lie?

- If telling lies can have a positive impact on someone's life, does that make it acceptable?