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MASTER THESIS

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Submitted and Defended by:
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On: **INVESTIGATING THE ROLE OF RESEARCH PAPERS IN DEVELOPING EFL STUDENTS' CRITICAL THINKING**
The Case of First Year Master EFL Students of Sicences of the Language at Biskra University

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Declaration

I, **HAMADA Soundous Marwa**, 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 Mohammed KHEIDER University of Biskra.

Algeria.

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Dedication

I dedicate this work to my parents and my family

Acknowledgements

Abstract

Learners in advanced level are supposed to submit a final dissertation; for this, EFL students at the University of Biskra claimed that they face many obstacles in all research stages (before, during, and at the end). This may result from their lack of practice and experience of research in addition to their lack of certain skills such as research and cognitive skills, especially, critical thinking. The aim of this study is to investigate the role of assigning research papers as a technique to develop EFL learners' critical thinking. Therefore, we hypothesized that the more EFL students are familiar with writing research papers, the more their critical thinking will be promoted. To test the validity of our hypotheses, a descriptive study is conducted with a qualiltative approach to collect analyze and interpret data. These latter were gathered through two different tools an interview administrated to nine (9) EFL teachers at University of Biskra and a questionnaire which is administrated to twenty-five (25) first year Master EFL students of sciences of the language from the same university. As a result, the study' findings proved that both teachers and students agreed upon the importance of critical thinking in learning English as a foreign language and the effective role of assigning research papers as a technique to develop students' critical thinking. Thus, the study findings confirmed the validity of our hypotheses. At the end, it is highly recommended for teachers to change the ways of teaching and evaluating students and base them on what makes students more creative and productive by adopting learner-centered techniques such as research papers in order to develop their students' learning and research skills including (personal, social, academic, and cognitive skills).

Keywords: Dissertation, research, research papers, cognitive skills, critical thinking

List of Abbreviations and Acronyms

AERA: The American Educational Research Association

EFL: English Foreign Language

ELT: English Language Teaching

PhD: Doctor of Philosophy

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General Introduction

1-Study Background

At all advanced levels, learners are expected to develop their character by learning, cultivating, and researching. This process of developingone's own knowledge is not an easy task to go through because it requires a number of skills such as personal curiosity, social communication, academic reading, and cognitive thinking skills. These latter skills are crucial in facing obstacles and issues in daily life namely in learning foreing languages. For this reason, teachers are expected to have a great role in developing these skills by raising their students' awareness of thinking and cognition skills; precisely, critical thinking skills. To achieve this objective, teachers may use a number of methods and various techniques, activities, and assignments.

2-Statement of the Problem

Being a critical thinker is very important in learning languages; especially, in learning English as a foreign language, but this is not an easy task.Second year Master EFL learners at the University of Biskra usually find many difficulties in conducting final research projects; precisely, in critical thinking that is considered as a reason for success. Second year Master EFL learners find problems inwhole research process from the choice of theme, the sources, and all research steps until the day of the viva.

Theproblem of critical thinking and research conduction mayoccurbecause the majority of EFL students did not conduct any research even in form of assignment during their university educational career. This can also be a result of not being familiar with these two processes. For this reason, the researcher proposed that if teachers use research assignments such as research papers as a teaching technique or material, their learners' research skills will be developed; especially, their critical thinking skills.

3-Research Questions

This research seeks to answer the following research questions:

RQ1: To what extent can critical thinking be effective in learning English as a foreign language?

RQ2: How do EFL teachers and students perceive the use of research papers as teaching assignments?

RQ3: How can research papers contribute in the development of EFL learners' critical thinking?

4-Research Hypotheses

Based on the above research questions,

RH1: We advance that critical thinking is effective in learning English as a foreign language.

RH2: We suppose that EFL teachers and students at the University of Biskra have positive attitude(s) towards the use of research papers as assignments.

RH3: We hypothesize that research paper have a great contribution to the development of EFL learners' critical thinking.

5-Aims of the Study

- General aim:

  The general purpose of the study is, to see the importance and the effectiveness of research as a way of enhancing learners'critical thinking development and its usefulness in raising EFL students familiarity with research.

- More specifically, this study aims to:

  1. Raise EFL learners'awarenessabout the importance of being a critical thinker in learning a foreign language.
  2. Seek to show the effectiveness of research papers as a technique of assignment.
  3. Enumerate the characteristics of good researchers and critical thinkers.

6-Research Methodology for This Study

Research Approach

The present study deals with the role of research papers in universities. To answer the research questions, the researcher follows the mixed-method, because she deals with both qualitative and quantitative approaches; moreover, it is more suitable and applicable for the nature of our research that belongs to social sciences.

Research Design(s) / strategy(ies)

This study opts for a case study (small scale study) because the results will not be generalized. The research design isbased on the use of an interview for teachers which comprises open-ended and close-ended questions to obtain a number of different responses. In addition, we usea questionnaire for students that contains a variety of close-ended, open-ended, and multiple choice questions. These tools can be an easy way to get quick results.

Data Collection Methods / Tools

In this study, the researcher uses both an interview and a questionnaire as tools to gather data.

Interview

In this study, the researcher uses a recorded semi-structured interview that takes the form of a conversation with a target aim that may help get honest answers. Moreover, it is a tool to gather information about EFL teachers' opinions on research papers, learners' critical thinking level, and their attitudes towards research papers and their function in developing EFL learners' critical thinking.

Questionnaire

In this study, the researcher uses thesemi-structured questionnaire, which contains both open-ended, close-ended, and multiple choice questions. This questionnaire aims to identify the difficulties EFL students face when doing research, their attitudes towards the use of research papers as assignments, and whether research papers have a contribution in developing EFL students' critical thinking.

Data Collection Procedures

To achieve the study objective(s), the researcher follows the following procedure: As an initial step, the researcher conducts a face to face recorded interview that takes the form of a conversation with a target aim. The interview is conducted with EFL teachers at the University of Biskra. As a second step, she posts the questionnaire online due to first year Master students of Sciences of the Language charged timetable. Then, the researcher collects EFL teachers and students responses.

Data Analysis and Procedures

After counting the yielded results, the researcher analyze the data throughcounts, and percentages by using statisticswith the questionnaire and descriptive analysis with the interview to see teachers and students attitudes towards the role of critical thinking and research papers in EFL teaching-learning.

7-Population & Sample

For this study, the population is first year Master students of sciences of the language (n=180) at Mohamed Kheider University of Biskra. Fora number of reasons, the researcher selected those students because they are supposed to conduct research papers and they are going to submit a dissertation the next year. More importantly, we observed that they practice

research papers from time to time. Therefore, they need good, practical, and easy techniques to guarantee their development in critical thinking and experience in doing research.

Among the aforementioned population, the researchers worked with twenty-five (n=25) students toget their opinions about the usefulness of research papers in learning EFL. As a sampling technique, this research is based on the voluntary random technique because the respondents of the online questionnaire are volunteers. In addition, from a population of more than fifty (n=50) teachers, the researcher works with nine (n= 9) teachers to enrich this study with different perspectives towards the importance of critical thinking and the use of research papers as assignments.

8-Sampling Techniques

For our study that belongs to social sciences, the researcher uses the simple random sampling technique; for the reason that, the elements have equal chances. Also, this sampling technique can be effective for the research design, nature, and aim. Moreover, it can be suitable because it may give unbiased and complete responses.

9-Significance of the Study

This study may have significant contribution in our domain of teaching and learning English as a foreign language. It focuses on how to develop learners' critical thinking, spread critical thinking culture, and research papers' importance for learners in an advanced level. Moreover, it suggests a solution that may help teachers to prepare good learners to be critical thinkers, problem solvers that skillful researchers. Additionally, this study seeks to show the importance of research papers for EFL learning career because it deals with the role of research papers to the development of learners' critical thinking which is needed for all life aspects.

10- Structure of the Study

This study is divided into two main parts. The first part is devoted to the literature review. It constitutes of two main chapters while the second one is devoted to the field work and data analysis. The current study comprises three chapters; the first chapter presents an overview about critical thinking. Moreover, the second chapter provides an overview about research and research papers. In addition, the third chapter (the practical part) is devoted to data collection, analysis, and discussion. For more details, the categorization is as follows:

- **Chapter One**

  This chapter deals with critical thinking. We tackled its definitions, history, process, standards, importance and approaches in addition to the main characteristics of critical thinkers. This chapter also shed the light on the different strategies of teaching critical thinking and its relationship with assessment and conducting research.

- **Chapter Two**

  This chapter is divided into two main sections. On one hand, the first section represents an overview about research in which we deal with its definition(s), types, characteristics, research in English Language Teaching (ELT) in addition to its main forms. On the other hand, the second section investigates the role of research papers as teaching assignment. More importantly, it highlights research papers' definition(s), significance, characteristics, components, types in addition to the main challenges students' have when writing research papers.

- **Chapter Three**

  This chapter starts with literature review about the research methodology adopted for this study namely, research approach andresearch design. Then, it deals with data collection, analysis, and interpretation. It is based on the use of two data collection methods (a questionnaire and an interview).

Chapter One:

Critical Thinking

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Introduction

This introductory chapter attempts to provide a deep clarification about critical thinking. It comprises an overview of its history, definitions, and nature. Firstly, this chapter deals with the process and importance of critical thinking; also, how it is different from negativity and creativity. It lists the characteristics of a critical thinker. Furthermore, it sheds light on critical thinking relation with pedagogy in terms of teaching and assessing English as a foreign language. Then, it explains the barriers to critical thinking; in addition to the connection between critical thinking and academia as a focal point, that addresses the conceptions of critical reading , critical writing, and research conduction.

1.1 General Overview of Critical Thinking

Critical thinking was and is still one of the main issues of discussion by many scholars and researchers. This might be a result of its importance in life, more accurately, in education.

1.1.1 History and Definition of Critical Thinking

Among our readings, we observed that critical thinking exists from a long time ago. Since it is not newly found, its roots drove from the Socratic period, 2.500 years ago (Amer, 2016). It comes from the Socrates' idea that people are unable to make judgments, to have evidence, and to prove their ideas except those in higher classes (The Foundation of Critical Thinking, 2018). With the same source, it is mentioned that Socrates' point of view proves that all people are able to have the right knowledge and prevision about everything, they just need asking questions about what happens around them before any acceptance of any idea and this took the name of "Socrates questioning theory".

Critical thinking was directly related to education. In the 19th century, Dewey (1933) introduced the term "reflective thinking"; he describes it as "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends". So being active in knowledge leads to good conclusions; moreover, nowadays, critical thinking considered to be one of the 21st-century skills because all schools adopt it (cited in Samuel, 1999).

For that reason, it was mentioned in 'Critical Thinking in the 21st century' (2018) that the adaptation of critical thinking in school among adults is crucial to prepare creative, innovate, and adaptable generation to make them think clearly and understand the target issue. Consequently, critical thinking is considered as the center of successful learning; not only, but it is beneficial in evaluating knowledge, alternatives and logical problem solving. Critical thinking has a very long history that is proved by its widely spread in all fields; especially, in education.

Knowing the history of critical thinking provides an inductive definition to it. As a term, critical thinking has noticeably researched in many domains. A number of educators and philosophers define critical thinking each from his/her point of view. First of all, on Oxford Advanced Learner's Dictionary (2018), critical thinking defines as the process that comprises the objective analysis of information in a task to make a judgment about it. So this definition focused on the analysis and judgment of information.

In the same path, Halonen (1996) considers critical thinking as skills to engage in tasks with a doubt that leads to a decision to what is proposed to do about that issue. he adds, critical thinking is a set of steps started from skepticism andend with an alternative for a specific activity. Accordingly, from the psychological angle that gathered the previous definitions. Williams et al., (2004), in their definition, they agreed upon the idea that critical thinking is a number of skills that are used in analyzing the reliability of information behind its organization and attitude towards a given topic that proves its importance. Furthermore, Glaser (1941, cited in Defining Critical Thinking, 2018) declares that: "critical thinking is the ability to think critically". He adds, it involves three things:

- An attitude of being disposed to considerin a thoughtful way, the problems and subjects that come within the range of one's experience.
- Knowledge of methods of logical inquiry and reasoning.
- Some skills in applying those methods

To deal with the above, critical thinking consists of three aspects that are needed for experience, knowledge, and skills.

To sum up, with the researchers' points of view, most of the definitions agree that critical thinking is a number of linked processes used to interpret an idea, an activity, or a problem to draw a conclusion.

1.1.2 Negativity Vs. Critical Thinking

A number of people think that critical thinking refers to negativity (mentioning only negatives of an idea). According to Sang (2012), critical thinking and negativity are totally different because negativity is when someone criticizing information without producing anything (as a new idea), while critical thinking is clarifying the quality of something then producing another thing. So critical thinking and negativity are not similar in meaning.

1.1.3 Creative Thinking Vs. Critical Thinking

Creative thinking and critical thinking are two expressions that seem similar in meaning and function. According to Nedha (2011), creative thinking is different from critical thinking because the former goes beyond the limitation of something, generative in aims, non-judgmental, and not selective. In other words, creative thinking deals with producing new things. She adds, critical thinking is the opposite of creative thinking for several reasons, critical thinking deals with analyzing, evaluating, analyzing aims, and adopting more fixed positions. Also, the author claims that creative thinking deals more with imagining and poetry (as domains) whereas critical thinking deals with assessment, organizations, and education. From her clear differentiation, creative thinking and critical thinking are totally different, but both are essential in life

1.1.4 The Process of Critical Thinking and Problem-Solving

Critical thinking is inseparable from problem-solving. Hereford (n.d) listed the following five stations that constitute critical thinking:

- Identifying the problem: Identifying the problem shows the target conclusion.
- Analyzing the problem: Analyzing the problem should require many perspectives to narrow the needed point.
- Brainstorming: Brainstorming is one from the ways of solving problems, also it comes with many alternatives and options for better results.

- Deciding the best solution: After brainstorming, many possibilities will come to mind but, critical thinking helps to decide which one is the most useful.

- Taking action: Most of the problems have a solution, it is rare to find the problem without one but these exceptions are used to improve our ideas and critical thinking.

According to Herford (n.d), these processes should be linked to a better conclusion. Finally, one can say that critical thinking and problem-solving are interrelated.

1.2 The Importance of Critical Thinking

The need for critical thinking proves its importance. Critical thinking is considered as a crucial thing in all life's domains; for the reason that, it is one of the pillars of success. To begin, Halpern (2003, p. 2), mentioned that "the ability to think critically has always been important; it is vital necessity for the citizens of 21st century". In other words, critical thinking is crucial nowadays because of the complexity of life; consequently, life needs people who think critically to facilitate its obstacles.

Similarly, according to Lau (2011, p. 2), critical thinking is important in life, science, and democracy, s/hejustifies his idea as following:

- Critical thinking is important in life because it is essential in communication, decision making, analyzing, and problem-solving and they are all crucial for a meaningful life with good future plans.

- Critical thinking is important if science, because science requires many experiments and things to examine and test, so, critical thinking is important in science for its credible results.

- Critical thinking is important in a democracy because it helps people distinguish between what is right and what is wrong.

To conclude, the above-mentioned benifits of critical thinking are related to into three main aspects: life, science, and democracy.

From the educational perspective, Hove (2011, pp. 27-28) links the importance of critical thinking to education and he affirmed that students who think critically will be succeed because critical thinking acts as a tool used in problem-solving and right decision making. Furthermore, he adds another importance of critical thinking in education that it makes the mind more active and able to face any obstacle.

In the same vein, George (2017), claims that critical thinking is an important ability for students and he listed six points to prove its importance that are summarized in: critical thinking makes students learn independently, it helps in growing mind to be creative, it develops opinions, it increases self-awareness (to guide students to differentiate between negative and positive sides), it helps in understanding others, and increases decision making (for stable life).

To sum up, one can deduce that, the importance of critical thinking is not limited to one angle because it is needed in every domain and step that people go through.

1.3 Approaches to Critical Thinking

As an idea, critical thinking has originated from different approaches. The philosophical approach to critical thinking originates from Socrates, Aristotle, and others who focused on the character of critical thinking and not on the behavior and the related operation with critical thought ("critical and analytical thinking", 2018).

On the other hand, Halpern (2003, pp. 7-8) explains the cognitive psychology approach, she noted that critical thinking is a set of thinking process and reasoning that people use in making a decision. Also, she claims that psychology concerned with knowledge, thought, and methods of learning and solving problems , all the previous are related to intelligence. She adds critical thinking as a part of cognitive psychology aims to "utilize the knowledge we have accumulated about human thinking processes and mechanism in ways that can help people improve how they think" . So the cognitive psychology approach deals with the use of previous knowledge with critical thinking skills to solve problems.

In brief, critical thinking derived from two approaches. The philosophical approach, that deals with behavior and people's response, while the cognitive psychology approach that deals with knowledge, thinking process, and reasoning.

1.4 The Critical Thinker

Being a critical thinker is highly required in all life domains including: at work, at school, in business, in art, in research, etc. Critical thinkers have some specific characteristics that distinguishe them from commun people in several characteristics.

1.4.1 Characteristics of People with Critical Thinking

A variety of critical thinking definitions say that people with critical thinking are different from common people for several aspects. Crockett (2018), gives seven characteristics of a good critical thinker as follows:

a) **Curiosity**: The critical thinker is always curious about any topic he faces whatever the domain it belongs to because he attempts to understand everything like, cultures, people's communication, and others' ideas.

b) **Compassion**: The critical thinker uses her/his mind and heart equally in solving problems; for the reason, that each one has her/his background. Compassion leads critical thinker took the best of oneself and others.

c) **Awareness**: The critical thinker does not admit anything. S/He always asks questions, discovers deeply, and solves problems.

d) **Decisiveness**: The critical thinker uses many possible solutions when she/ he faces a problem, then she/ he progressively conclusive them with the logic suitable one.

e) **Honesty**: Is one of the criteria that good critical thinker takes into consideration. "honesty extends to how one looks within oneself to embrace what resides there". To clarify, critical thinkers, are equal in the acceptance of oneself and others.

f) **Willingness**: The critical thinker learns from her/ his mistakes,s/he is open-minded, s/he is active listener, and s/he seeks to improve self-learning.

g) **Creativity**: The last characteristic suggested by the author shows the importance of creativity in critical thinking and vice versa.

To conclude with Crockett(2018) list of characteristics of critical thinker, it was mentioned that being a critical thinker requires many things such as curiosity, acceptance of others' points of view, use the heart and the mind equally when making decision, look for public interests, and being creative.

1.4.2 Personal Strategies for Critical Thinking

Learning and being educated is not enough in life and education. Wiley (2015) and Crockett (2018) list some personal strategies need for critical thinking. Both authors agreed upon the idea that people need to be curious about learning more new things by themselves to have experience; consequently, their evidence will grow and they will become decision makers. In addition, critical thinkers take into consideration the common interests rather than self-interests even if they are not appropriate, because they avoid selfishness. Moreover, one of the strategies is that people need to ask mind questions about everything because this is the core of critical thinking. From what has been mentioned above, critical thinking strategies require curiosity, independent learning, and getting experience.

1.5 Critical Thinking Skills

As what has been mentioned earlier in item (1.2), critical thinking is crucial in life. Thinking critically needs a number of skills that show its complexity. To start, Allen (2004, p.2) refers critical thinking to smart thinking, and he describes it as a set of processes used to achieve certain goals. He adds, reasoning as critical thinking skill refers also to understanding and exploring relationships between elements, objects, or ideas and all these elements can be individually meaningful as they can be meaningless. Therefore, reasoning is the skill that enables to understand every single thing in the world. From his point of view, he mentions that knowledge is crucial in reasoning in terms of making relationships between elements for better understanding. In his detailed explanation of reasoning, Allen (2004, p.3) emphasizes on its complexity an ability; precisely, when a person tries to grasp others' points of view, to generate ideas, to evaluate reasons by ohers, and to reject or accept information.

In the same line of thought, Potts (1994, p.1) agreed upon the above idea in some points. Yet he summarizes critical thinking skills into three points: finding the relationships

between pieces of information, finding and evaluating solutions or alternatives to deal with problems, and asking open-ended questions. Equally, Butterworth and Thwaites (2013, p.1), directly link critical thinking to problem-solving. They mentioned that problem-solving needs critical thinking skills because they work together as follows:

a) **Reasoning**: As what is mentioned above it is a set of processes based on what one knows and understands and uses this understanding in judging and making decisions.

b) **Creative Thinking**: As reasoning, creative thinking skill is a highly required skill. Scientists and researchers found that creative thinking is in conflict with the reasoning in terms of one should be in first place. Also, creative thinking uses new creative ideas, while reasoning uses both in applying creative thinking. Therefore, creative thinking is needed for effective reasoning.

c) **Reflection**: Is "to think about thinking"; that means to think twice about anything seriously. Reflection focuses on problem-solving, decision-making, and argumentation; in addition, it helps in the evaluation of thinking and proving.

As the researchers and scientists demonstrated, critical thinking skills are very important in life and education in term of problem-solving, relationships-making, and understanding. All critical thinking skills are equally important started from reasoning to reflection.

1.6 Standards for Critical Thinking

Critical thinking is characterized by the one's unacceptability of any information. It based on standards to guarantee successful information to be accepted. Elder and Paul (2009, p. 10), points that the best critical thinker does not believe in anything they heard or read; consequently, they provide the intellectual standards of thinking. First of all, clarity, they ask questions to elucidate the intended meaning and uphold it with examples. Then accuracy, critical thinking is well-known of its precision of assuring the validity of the information. Also relevance, it refers to its directness to the problem nature, possible questions can be asked, and what should be writing about it, i.e., does it relate to our thinking?

Besides they added logic, logical thinking leads to confirmation and making sense. In addition, Elder and Paul (2009, p.10) add that fairness, since critical thinking takes into consideration others' and self-behaviors, critical thinkers should be aware of the acceptance of provided information by people. The last element by the authors is reasonability, using open-mindedness is central in critical thinking standards. The intellectual standards act as elements used by a people to be good critical thinkers.

1.7 Critical Thinking and Pedagogy

Recently, critical thinking takes a place in education more than in any other domain. It is considered to be one of the main characteristics of 21st century education in addition to some other aspect such as: creativity, communication, and collabauration.

1.7.1 The Pedagogy of Critical Thinking

Critical thinking is needed in life, anyone needs it from birth to death. Kids learn their critical thinkng from their interaction with the world then, they develop it in schools. Nowadays, hearing or reading about critical thinking is always related to pedagogy. According to Radolvic and Stancic (2017, p.11) the main goal of education is to develop learners' critical thinking while the main goal of pedagogy is to find effective methods for successful critical thinking. This latter is the most concern of schools. Radolvic and Stancic (2017, p.22) state that school provides different approaches to make learners understand its nature and the main focus of schools is not only to develop critical thinking but also the ways of understanding school life from its development.

Furthermore, Hager and Kaye (1992, p.26) assert that critical thinking is the most debatable topic in pedagogy.; moreover, they point out that the target of this debate is to check whether critical thinking should stick to traditional discipline. Regardless of its importance, Hager and Kaye (1992) insist on critical thinking is crucial in applied fields such as teacher education.

To conclude with the researchers' point of view, critical thinking and pedagogy have a strong relationship because each one completes the other. Schools are the best place to learn critical thinking and this latter is important for successful learning.

1.7.2 Critical Thinking in Teaching

Critical thinking is considered to be one of the pillars of successful learning. As what was mentioned above, the school is the appropriate place for learning critical thinking. Teaching critical thinking is a sensitive issue that requires a process and competent teacher; for the reason that preparing critical thinkers does not enhance only the way they study, but also in country's development in all domains.

In the sense, Emir (2009, p. 2466) confirms that successful education helps learners to reach a high level, being active, make judgements, and all these result in developing their critical thinking abilities. This means that, teachers who teach critical thinking should be aware of how to plan, organize, and present courses and activities. Emir (2009, p. 2466) adds, teaching critical thinking must pass through various stations which are: stating the aim, preparing organized contents to realize them, preparing effective activities that are based on the learners' needs and participation, and providing skills of development that develop critical thinking skills.

Furthermore, teaching critical thinking must present in all fields. In their study, Kargar et al., (2013, p. 51) prove that critical thinking and creative thinking are important in enhancing learners "psychological well-being". They add, teaching critical thinking improves learners' comprehension, autonomy, and control ability. To findings of Kagar et al., (2013, p.51) declare that teaching critical thinking trains the psychological side of learners to make them do well and achieve good results.

To sum up, teaching critical thinking is crucial and highly needed and it is related to many other fields of education. Also, teaching critical thinking needs competent teachers for preparing critical thinking programme, courses, and activities.

1.7.3 Integrating critical thinking in efl classroom and developing language skills

As a field of learning and teaching, EFL classroom adopted critical thinking because of its significant role in learners success. Shirkhani and Fahim (2011, p.111) confirm that EFL teachers seek to enhance EFL learners' critical thinking, especially, in terms of assessing and assessment practices. Accordingly, Zhao et al., (2016, p.14) focus on assessment in education

and the request for critical thinking in EFL classroom. Also, they insist on the learners for being good critical thinkers to challenge EFL learning in addition to the need for making critical thinking effective to illuminate its strategies at "macro level". They add, that critical thinking enhances EFL learners interaction and support them to succeed in learning.

In the Algerian context, EFL learners need this kind of support because the English language is not used in everyday conversations, thus integrating critical thinking in EFL classroom will be greatly helpful for teachers and learners. Alike, Harizaj and Hajrulla (2017, pp.126-127) say that integrating critical thinking in the classroom is the main concern of EFL teachers and learners for better communicative competence, it help them to analyze the functional context of the language, it motivates them to involve autonomy, it helps them to be creative, and it improves self-confidence. Additionally, critical thinking must be taught in all EFL learning levels, precisely, for high school and university (Harizaj and Harjulla, 2017, pp.126-127).

To sum up, integrating critical thinking in EFL classroom has a great impact on EFL teaching and learning success. Because of its high position, critical thinking helps to raise EFL learners' self-confidence, communicative competence and motivates them.

1.7.4 Strategies for Teaching and Developing Critical Thinking

What teachers teach learners is not restricted to school boundaries, but for life being used in domains in the future, teaching critical thinking will be beneficial for them. For that reason, teachers try to adopt many strategies for teaching critical thinking.

Crockett (2018) suggests some strategies for teaching critical thinking that may be used together or separately as techniques, firstly, asking questions is considered as the easiest and effective strategy whatever the type of question it allows students to discuss the topic; additionally, peer work as an environment created for better learning by teamwork and collaboration that makes learners exchange information; furthermore, problem-solving by asking questions that need discovery and knowledge that make learners think critically. Another strategy by Crockett (2018) is sketches, using visuals (pictures or videos) is a good way of silent communication and allows to transform words to pictures using mental skills and encourages critical thinking.

Additionally, Cox (2018) gives some other strategies that include proposing projects to learners to encourage creativity. For him, learners who do projects will be critical thinkers who use their previous knowledge and give new ideas. The second strategy is that teachers avoid helping students and answering their questions all time; they, from time to time, let them think once and twice or re-ask these questions to their classmates to find as much as possible answers. The third strategy is to brainstorm; teachers give their students some hints about something to make them think critically about the subject for more understanding. The fourth strategy is making the connection; this lets students relate what they learn with real-life.

To conclude, in teaching critical thinking teachers should not rely on traditional strategies , but they should adopt new ones that raise students engagement to make them responsible for their learning.

1.8 Critical Thinking and Assessment

Since the responsibility of teachers is to develop learners' learning and critical thinking, teachers try to see how effective are their lectures for learners by assessing them. Also, students themselves do this to examine their knowledge and reasoning. According to Black and Wiliam (1998, p.7) assessment imposes students to recall information that they store on their cognitive part so, as a process it is linked to students critical thinking. They add that assessment has a great consideration in modern learning methods because it is one of the conditions of successful learning that aims to help improve learners' learning level.

Moreover, assessment helps teachers to find what learners lack for better comprehension and understanding. Pretorius et al., (2018, p.7) point that writing, oral, and visuals are types of assessment that need preparation process as follows:

- Analyzing the question (critical investigation),
- Brainstorming keywords or ideas,
- Conceptualizing ideas and rubric,
- Effective reading and note taking,
- Figuring out structure,
- Get writing and designing,

- Having a break, and
- Identifying errors and fixing them.

The researchers adds that thinking critically is crucial for better doing the assignment by highlighting strengths and weaknesses of a giving topic (p.12).

The real function of assessment in school is to measure students critical thinking skills. In this area, Benjamin et al., (2016, p.5) claim " if performance assessments are integrated into accountability system, this has the potential to positively impact classroom practice by encouraging teachers to foster the development of competencies in critical thinking skills" . To clarify, assessment is a tool to quantify how learners advanced in learning and improves their way of learning.

In teaching and learning EFL, researchers as Belachew et al., (2015, pp.7-8) show that most of EFL teachers lack skills in assessing and teaching critical thinking. So, they suggest to train teachers in institutions, workshops, and seminars to raise their awareness on how to practice assessment in EFL classroom because they know only the theoretical part of how to assess.

In brief, assessment as a process requires critical thinking skills to measure how well students develop in learning and well-trained teachers; especially, in EFL teaching. Also, it is beneficial for both teachers (to use it as a way of measuring and finding learners' comprehension gaps), and students (to discover what they missed for full comprehension and understanding by thinking critically). For these reasons, schools should consider assessment as a technique in the curriculum for better learning achievement.

1.9 Barriers to Critical Thinking

Most students do not know what does critical thinking mean. This may result from its complexity. According to Cottrell (2017, pp.10-12), critical thinking as a difficult issue has certain barries some of them exist for everyone while the others vary from one person to another, these barriers are :

Misunderstanding what is meant by criticism: Students reflect critical thinking to negativity,while its real meaning is to categorize the positive and negative sides of the issue.

Over-estimating the own reasoning abilities: This refers to self-thinking as a good way for self-sufficient argumentation, abilities, and reasoning. Also, the person has to accept others' way of thinking and reasons by avoiding conflicts and illogical thinking because they destroy mental abilities.

Lack of methods and strategies: Being a good critical thinker requires knowing its skills and the familiarity with what is meant for better development of its abilities.

Affective reasoning: Critical thinkers must be competent in convincing others by their argumentations and ideas to show that there are more than a view for an issue; especially, for those who do not easily accept .

Mistaking information for understanding: Since learning as a process of developing understanding, learners may misunderstand what teachers intend to convey and this may humper their comprehension and make them unable to make judgment and reasoning.

Insufficient focus and attention to details: Critical thinking needs much of attention for every detail of the issue to make precise critic. Moreover, general critics are not sufficient; therefore, giving attention leads to the precise evaluation of argumentation and contributes to making everything clear.

In the same path, Aliakbari and Sadeghdaghighi (2013, p.4) agreed with the above in the point of the lack of knowledge of critical thinking as a term. They added that students characteristics may act as a barrier in the sense of self-sufficiency. Also, the application of critical thinking teaching strategies may affect learners critical thinking; therefore, teachers have to pay attention to the way of teaching critical thinking to guarantee the well-done process in reasoning and argumentation.

Briefly, teachers should take critical thinking barriers into consideration because it is a sensitive and complex issue for learners. Being a critical thinker needs to be attentive, to have self-confidence, and to apply effective strategies for teaching it.

1.10 Critical Thinking in Higher Education

As most of researchers agreed upon the fact that school is thesource of critical thinking. It needs to be developed, especially, in higher education because it is the place that people practice their critical thinking. In accordance to its need for successful higher education career, Kumar and James (2015, p.33) confirm the previous ideas by claiming that critical thinking is the focus of educators to prepare students for the post-secondary and workers because it is "cross-disciplinary skill". In the same paper, the researchers say "critical thinking is an advanced level of exercising a mental activity based on rational principals" (p.33).

In higher education teachers are guiders while students are centered the classroom; therefore, developing critical thinking skills based on students for the reason that, they use and practice it in activities to formulate their skills (McGraw-Hill Education, 2017). Additionally, student-centered teaching in higher education has vital role in developing their critical thinking skills (McGraw-Hill Education, 2017). To explain, university students' critical thinking will develop faster and they will do better in their future careers because they practice it in their profession as it should be.

Critical thinking is an element that is needed in all subjects, students have to be skepticism about all what they face and work with its skills in all activities; moreover, learners who think in higher level are good critical thinkers because they are competent and active, precisely, in taking notes, answering questions, and discussing ideas ("What is critical thinking?", n.d). In addition, the success of students higher education depends on their level of critical thinking as a result of being competent and active in all activities so they are autonomous ("Importance of Critical Thinking in Higher Education Essay", 2019).

In Algerian EFL context, learners are not familiar with critical thinking; this results their impassivity. Researchers as Amrous and Nejmaoui (2016, p.153) find that poor

performance and impassivity referred to students' low level of critical thinking and instructions given by teachers; for example, instructions given to write a paragraph that guide and limit them with certain instructions. So, they suggest that higher education should reshape courses and activities based on critical thinking by avoiding instructions. For more clarification to researchers' suggestion, EFL higher education curriculum has to face some changes in curriculum (courses and activities) and base them to critical thinking.

To sum up, critical thinking takes a place in higher education for providing active students so; higher education curriculum should adopt critical thinking to make students use their capacities and practice more.

1.10.1 Critical Reading

Reading is one of the four skills that EFL learners have to master during her/his learning career. According to Nasrollahi et al., (2015, p.15), critical reading is a source that enables EFL learners to better comprehend and understand the meaning between lines by applying critical reading strategies. They add, it is a systematic active reading to clarify the intended attention. As researchers illustrated, critical reading is part from higher education activities that has vital role; consequently, it clarifies academic pieces of writing, helps learners to comprehend the addressed points in order to accept or not the text; moreover, it help EFL learners to apply critical reading strategies to enhance mastering that skill.

1.10.2 Critical Writing

Writing is one of skills that EFL learners have to master. Critical writing is a style of writing used in writing papers in advanced level of learning. According to Joan and Phil (n. d, p. 1),

> Critical writing is challenging for most students: it requires the ability to adopt diverse perspectives on the same to read,assimilate, and evaluate complex concepts and to step outsideof one's daily work to view that can be taken-for-granted assumption through a critical lens.

To sum up, critical writing is not easy, because it needs the capacity of being able to write and being able to read between lines (read, assimilate, and evaluate).

In the same path, critical writing is important in writing assignments as a method of writing with a purpose that consider as an answer to the academic question that had been asked; moreover, it is crucial to indicate own evidences and arguments to convince the reader (Skills for Learning, 2018). Additionally, looking for information to write requires skills of evaluating information, referencing, and the suitable technique of writing to prove the conclusion. From what has been aforementioned, critical writing differs from descriptive writing because it requires a number of skill behind critical thinking skills for purposive convincing production.

1.11 Critical Thinking and Research

At the end of any higher educational level, learners are supposed to submit a final research projet to practice what they have learned during their learning career as writing research papers. Suter (2012, pp.3-13) points that most of learners learn how to conduct research, but they do not practice it during their learning process. He adds, thinking about research is beneficial; for the reason that it facilitate communication, problem-solving, and others understanding. For him, research and critical thinking are interrelated because research enhances critical thinking and vice versa; especially, at the level of assessing conclusions, judging ideas , and reasonings (deductive and inductive).

Additionally, Suter (2012, pp.3-13) says that teachers who teach research courses should be skillful critical thinkers. Likewise, Wullmann and Hoover (2012, pp.93-94) insist on the importance of critical thinking in higher education. For them, learners in higher education need skills such as synthesizing information, solving problems, developing opinions, and collecting sources, precisely, when they are asked to write a research as a final project or research papers as assignments that are consider as a technique to enhance critical thinking.

From what has been synthesized from the above, critical thinking and research cannot be separated for their exchangeable relationship; especially, in higher education and academia as place of practicing both research and critical thinking.

Conclusion

To conclude, through this chapter we attempted to present a general overview on critical thinking. Initially it presented the history and definition of critical thinking, and its variety from negativity and creativity. Additionally, it providedthe characteristics of critical thinker and its barriers; moreover, it spotted light on the relationship between critical thinking and pedagogy (how to teach and assess it in EFL classroom). Furthermore, it clarified the connection between critical thinking and higher education with the foci of critical reading, critical writing, and research.

Chapter Two:

Research Papers

Table of Contents

Introduction

This chapter is an attempt to provide an overview on research and research papers. It is divided into two sections; the first section addresses research definition, significance, types, characteristics and settings where it occurs. In addition, it sheds light on action and educational research, research in English as a foreign language, research in educational psychology and finally research forms. The second section traces research papers definition, significance, characteristics, components, and types. Moreover, it spots light on challenges in writing research papers and steps in writing research papers.

2.1 Section One: General Overview of Research

Research is a study that is conducted in academic settings for academic purposes. Both teachers and learners conduct research to improve knowledge and discover what is missing and fix it. Learners as novice researchers who need to practice research during their learning career to ease their final research submission.

2.1.1 Definition of Research

On its general sense, research is gathering data to come up with new knowledge. Many scholars define research each from his point of view. Initially, Kothari (2004, p. 1) defines research as an academic, scientific, and systematic activity to search information and to gain knowledge in a specific domain by using specific techniques. For this sense, research is the act of using techniques orderly to gain knowledge in a specific field. Accordingly, Degu and Yigzaw (2006, p. 2) define research as a scientific inquiry that seeks to find out new ideas, facts, and theories; moreover, it refers to the systematic collection, analysis, and interpretation of data that may produce new knowledge as an answer for a given question or to solve problem in a field (Degu and Yigzaw, 2006, p.2). Therefore, research is a systematic operation that starts with question ends with knowledgeable answer.

In the same path, Fred and Perry (2005, p. 8) agree with the preceded definitions, they said: "research is process whereby questions are raised and answers are sought by carefully gathering, analyzing, and interpreting data". Then, research seeks to answer questions by following certain steps to provide effective answers. Besides, Pathak (2008, p. 1) divides research into two parts re (again and again) and search (to find out) then, he illustrates research as a procedure of the frequent observation of a phenomena and collect data that they can be either numerical or non-numerical in nature. To sum up, research starts with observing phenomena again and again then, studying it to have effective results.

To sum up with the scholars definitions of research, research is a careful process that begins with observation of some phenomena that goes through some steps orderly to achieve an answer that provides knowledge.

2.1.2 Significance of Research

Conducting research is not limited to one field; it provides new elements of knowledge that are beneficial for all fields because it fills their gaps. Since it is beneficial, Kothari (2004, pp. 5-6) suggests a range of significance of research as follows:

- The role of research in several fields of applied economics, whether related to business or to the economy as a whole, has greatly increased in modern times because it acts as a helper to solve government economic problems.
- Research provides the basis for nearly all government policies, it helps to check programmes, and collect information on the economic and social structure.
- Research has its special significance in solving various operational and planning problems of business and industry; it replaces intuitive business decisions by more logical and scientific decision.
- Research is equally important for social scientists in studying social relationships and seeking answers to various social problems.

Furthermore, according to him, research means different things to different people;

- To those students who are to write a master's or PhD thesis, research may mean a careerism or a way to attain a high position in the social structure,
- To professionals in research methodology, research may mean a source of livelihood,
- To philosophers and thinkers, research may mean the outlet for new ideas and insights,
- To literary men and women, research may mean the development of new styles and creative work, and
- To analysts and intellectuals, research may mean the generalizations of new theories.

To conclude, research is required in all fields as; economics, business, social sciences, and all organizations. So it considered to be a source of knowledge that feeds, guides, and ameliorates them and these prove its significance.

2.1.3 Types of Research

As a result of its wide significance in all fields, research has variety of types depends on certain extents. Kumar (2011, p. 8) categorizes them according to three perspectives:

- Application of the findings or the research study.
- Objectives of the study.
- Mode of inquiry used in conducting research.

Application of the findings or research study

On this perspective there are two major types: Pure and Applied Research

- **Pure Research:** Kumar (2004, p. 8) points that pure research deals with the development, verification, and refinement of research and all the follow steps of research that shapes its body of methodology. He adds, pure research findings seek to develop the existing knowledge but they will not be applied in the field. Since Kumar (2004, p.8) did not define this type of research, Gratton and Jones (2004, p. 7) defins it as a type of research that seeks to explore a particular concept or issue, but not as a problem because it aims to gain general understanding; moreover, it does not add any contribution to "intellectual

inquiry". This means that pure research is done for the sake of understanding some issues that its findings may or may not add any contribution to knowledge because they will not be applied.

- **Applied Research:** Unlike pure research, applied research' findings add contribution to knowledge by applying them for a particular field. The previous idea confirmed by Kumar (2011, p. 8) when he said that this type of research is widely used in the domain of social sciences because all its techniques and methods that figure out its methodology will be used to collect information to solve problems. Kothari (2004, p.3) completes the previous idea by saying that this type of research's solutions will always be applied in specific organization for gaining further knowledge.

To sum up with this perspective, pure research is done for the sake of understanding and its findings may or may not add any further knowledge and they will not be applied; contrariwise, applied research is done for the purpose of solving problems that occurs in specific field and its findings add knowledge so, they will be applied.

Objectives of the Study

On this perspective, there are four types of research: Descriptive, correlational, exploratory, and explanatory.

- **Descriptive Research:** According to Kothari (2004, p. 3) this type of research deals with "survey and fact-ending enquiries" of various kinds; it aims to describe phenomena at present time and it is characterized by then on control of variables. Moreover, it is a way of evaluating hypothesis or asserting causes and effects; additionally, it takes place in education as a way of planning programmes and identifying learners needs (Monsen and Horn, 2008, p. 5). Hence, descriptive research deals with describing present phenomena by manipulating uncontrolled variables; it is used more in education as an aid for its success.
- **Correlational Research:** Its name denotes its objective that it deals with finding relationship, association, and interdependence that exists between variables, or how an aspect cans affects the other (Kumar, 2011, p. 9). Besides, Walliman (2011, p. 9)

defines this type of research as the relationship or the link that exists when an aspect causes or influences another. Therefore, correlational research seeks to find and study the relationship that exists between two or more variables and determines its nature.

- **Exploratory Research:** Like correlational research, this type of research deals with the relationship that exists between variables, but its focus is to explain why and how there is relationship between those aspects of specific phenomena (Kumar, 2011, p.9). In this sense, this type of research resembles the correlational research in studying relationship between variables, but it specified in explaining why and how does this relationship exist.

- **Explanatory Research:** To explain this type of research, Kumar (2011, p. 9) defines it as an attempt to explore or to investigate the possibilities of undertaking a specific study. He adds that , it can be named as "feasibility or pilot study" because it is conducted when the researcher wants to search about an area which has or has not knowledge in small skill to show if it is worthy to be studied or not. Briefly, this type of research seeks to test whether a specific study worth to be conducted or not and it is conducted usually in small scale.

All in all, in this perspective, research is categorized according to its target such as: descriptive, correlational, explanatory, or exploratory.

Mode of Inquiry Used in Conducting Research

On this perspective, there are two types of research Quantitative and Qualitative research that have been defined by Kumar (2011, pp. 9-10) as follows:

- **Quantitative Research:** It is also known as "the structured approach" that its methodology (objectives, process, design, sample, and questions) is "predetermined", also it is more appropriate to decide the extent of the problem; additionally, this type of research deals with quantifying the variation between variables using statistics and numerical data. As a conclusion, this type of research deals more with numbers, statistics, and quantifying so, its results will be precise and credible.

- **Qualitative Research:** It also is named as "the unstructured approach". It deals with the flexibility of its process used to explore phenomena that is "predominant" such as:

experience, describing, historical events, or establishing phenomena. Therefore, qualitative research seeks to describe phenomena that already exist and its findings are depending on those phenomena.

As a final remark given by Kumar (2011, p. 10), the distinction between these two types (quantitative and qualitative research) depends on the aim and the use of findings. In brief, quantitative research seeks to quantify and provide exact results by using numbers, whereas qualitative research seeks only to describean existing phenomenon.

2.1.4 Characteristics of Research

In the aforementioned definitions of research, it was mentioned that research is a systematic process that requires certain techniques and methods depends on its nature. However, it is important for the researcher to know the characteristics of research. On this point, Singh (2006, p. 4) presents the general characteristics of research as follows:

- It gathers new knowledge or data from primary or first-hand sources;
- It places emphasis upon the discovery of general principles;
- It is an exact systematic and accurate investigation;
- It uses certain valid data gathering devices;
- It is logical and objective;
- The researcher resists the temptation to seek only the data that support his hypotheses;
- The researcher eliminates personal feelings and preferences;
- It endeavors to organize data in quantitative terms;
- Research is patient and unhurried activity;
- The researcher is willing to follow his procedures to the conclusions that may be unpopular and bring social disapproval;
- Research is carefully recorded and reported;
- Conclusions and generalizations are arrived at carefully and cautiously.

Knowing research characteristics contributes in the amelioration its quality and guides the researcher to write a good research.

2.1.5 Settings Where Research Occurs

As an act of proficiency, research requires limited settings because it is a careful process of gaining knowledge in particular domain(s). Bibi and Sheikh (n.d, p.4) demonstrate that any research whatever its format or category should be conducted in settings as: educational institutions, laboratories, classrooms, libraries, and foreign culture. They add that research in education or academia is done for the sake of achieving degrees. Moreover, these researchers have to be experts and professors from natural sciences or social sciences or students of undergraduate or graduate programmes from related or multiple disciplines (Bibi and Sheikh ,n.d, p. 4). To sum up, research conducted by experts as teachers or graduate or undergraduate learners to achieve degrees under the umbrella of education or academia as center setting of its conduction.

2.1.6 Educational Research

Algerian educational system changes from time to time at the level of the used techniques, courses, and materials by people who belong to academia and education. To be precise, in higher education; for example, learners are supposed to study the process of teaching and learning problems and suggest alternatives to solve them and this type of research named educational research. In this sense, The American Educational Research Association (AERA) (2019) gives a comprehensive description of educational research; they say "educational research is a scientific field of study that examines education and learning processes and the human attributes, interactions, organizations, and institutions that shapes educational outcomes". Therefore, this type of research foci are teaching and learning processes. It develops new tools and methods for learning process. This kind of research aims to enhance learning process.

2.1.7 Action Research

Like educational research, action research concerns with the processes of teaching and learning. Yet, it is conducted by teachers to create new ways to facilitate teaching and consequently learning. This idea confirmed by Hewitt and Little (2005, p.2) when they affirm that this type of research clarifies the school or classroom situation to teachers and administrators to help them establish solutions for school and classroom problems, there producing new systems for teaching. They add as a simple definition, action research is "reflective process" used by educators to investigate decisions of their classroom based on the needs of their students. To conclude, the action research is conducted by teachers to solve teaching (school or classroom) problems to ameliorate the process of teaching, thus facilitate learning.

2.1.8 Research in English Language Teaching (ELT)

In learning English as Foreign Language, research has a position because it is need to find out the surrounding problems in EFL classes and fix them. According to Li (2009, p. 8), research in ELT (English Language Teaching) is quietly significant among college English learners for the reason that they lack practice. He adds, research in ELT is an effective tool to find out suitable methods of teaching and to realizeteaching aims. In other words, research in ELT is crucial because of its effectiveness as a technique in teaching-learning ELT, and in fixing all the problems that may occur in ELT classrooms.

More importantly, as an educational research, research in ELT discusses unique topics. Pokrivčáková et al (2012, p. 10) cited that Johnstone (2003, 2004, 2005, 2006, 2008, and 2009) in his annual reviews listed the issues that research in ELT discusses such as: language acquisition, foreign language learning strategies, effective characteristics of a learner, younger learners, and the components of foreign language proficiency. To simplify, research in ELT focuses on topics that contribute in facilitating teaching and learning foreign languages.

All in all, research in ELT is considered as a way of practice by discussing all problems that faces EFL teachers and students, and tries to find out effective solutions.

2.1.9 Research in Educational Psychology

From its label, research in educational psychology deals with both education and psychology. It is known that this latter seeks to developing educational process with the consideration of psychological side. Fetsco and Mcclure (2005, p.2) give a definition of this discipline, they affirm that it is a "branch of psychology that is concerned with the study of mental processes and behaviors associated with human being and instructions"; moreover, as the authors explain, educational psychology is associated with learning in laboratory and classroom. So, educational psychology studies both classroom (learning process as language acquisition) and laboratory (mental process as critical thinking).

Accordingly, research in the field of educational psychology is crucial for many reasons. For Sharma (2012), research in educational psychology aims to develop language and socialization in relation to their effect on learners, to help teachers find effective methods of learning in and outside classroom, to help in developing the field of educational psychology itself, and to help teachers providing proper teaching programmes by knowing learners' differences (age, personality, and way of thinking). To conclude, research in educational psychology conducts to facilitate teaching and learning process by considering learners psychological side and differences.

2.1.10 Forms of Research

When reading about research we found that research takes several forms such as thesis, dissertation, report, and research paper. This variation depends on the criteriaof research type, aim, duration, and structure. First of all, a thesis is a lengthy research conducts to get PhD degree. In this sense, Saini (2012), a thesisdeals with an original research topic with a large case study that its analysis contributes to already existing literature with new data collection that gives the conclusion and the possible alternatives. On the other hand, a dissertation is submitted to get the Master's degree. Saini (2012) states that it deals with synthesizing already existing literature with small case study; in addition, it is an analysis of an existing literature with positive views. In brief, theses and dissertations are different in length, degree, and originality.

Besides, report and research paper are also forms of research that are different. According to John (2018), "report is a part of documentation which is sharp and short and specially written for a particular audience". As a short documentation it comprises particular information that are analyzed and applied for a specific problem. Furthermore, it should be well-organized in format. Contrariwise, research paper, as Bhakar and Sikarwar (2014, p.1) describe a study in specific field of knowledge to find out the suitable alternative information. They also add that its writer has to indicate and work with his thinking from others' ideas. Briefly, report and research paper seem to be similar but they are totally different.

To sum up, research has many forms as: thesis, dissertation, report, and research paper which aredifferent according to some criteria. As a conclusion, research is a source of knowledge. It deals with what knowledge needs. Being a researcher requires practicing research during learning process using a variety of tools as research papers.

2.2 Section Two: General Overview on Research Papers

Since research is an academic activity, it is crucial to prepare learners as professional researchers by helping them practicing research to be familiar with its process and skills. One of the methods of practicing research is through research papers that learners write as assignments.

2.2.1 Definition of Research Papers

A Research paper is a form of research used frequently as a teaching or assigning technique. To clarify the idea of research papers, the researcher collected a number of definitions. To start, Shewan (2000, p.1) describes research papers by citing their characteristics, he says " a research paper deals with limited topics and is based on information gathered from documents, books, periodicals, (…) with experts in particular area of knowledge". In other words, research papers discuss specific topics using different kinds of sources from the same domain of the researcher.

In the same vein, Singh (2006, p.259) provides a comprehensive and simple definition which confirms that a research paper is the presentation of a critical study that presents a number of others' opinions; in addition, it deals with the verification of previous sources (analyzing, evaluating…). Therefore, research papers deal with the presentation of others' opinions and thoughts.

Furthermore, Rozakis (2007, pp. 3-4) views that a research paper is an important, useful, and efficient technique of gathering and presenting information. He adds that learners in all levels conduct them as a tool of practice based on thinking skills of "evaluating and synthesizing" because they present a point of view. Briefly, a research paper is a tool of practice that presents learners' point of view using thinking skills.

Accordingly, in education, Metherell and Winkler (2011, p.3) define a research paper as an effective method of learning for the reason that they make learners practice writing skill and present one's ideas because they are used as assignments. To simplify, research papers used to assign learners, improve their writing skill, and present their ideas.

From the above definitions, it can be synthesized that a research paper is considered as a teaching-learning device and an effective way of presenting others' point of views. It is conducted by learners based on different sources and critical thinking skills.

2.2.2 Significance of Research Papers

Doing research papers is beneficial in the learning process. According to Metherell and Winkler (2011, p.5) , research papers are significant because they make the learner learns how to choose researchable topics and get experience, they teach research ethics and styles, and they make learners familiar with libraries and other sources. They add that research papers are helpful because they teach:

- How to track down information,
- How to organize,
- How to use the internet in your research,
- How to discriminate between useless and useful opinions,

- How to summarize,

- How to budget your time, and

- How to convince and manage a research project from start to finish.

To conclude, research papers are significant because of many reasons and they are useful in making learners practice research as it should be.

2.2.3 Characteristics of Effective Research Papers

Writing research papers is not a matter of just presenting ideas; they have certain requirements. Rozakis (2007, p.5) gives a wide range of characteristics of effective research papers such as:

- The work should be original, not plagiarized. Every outside source is carefully documented.

- All supporting material used in preparation of the paper can be verified.

- The paper should follow a specific format, including the use of correct documentation.

- The paper should be standard written English.

- The paper should show that the writer has read widely on the topic.

- The paper should show that the writer has a strong understanding of the topic and source material used.

- Each point is supported by solid, persuasive facts and by examples.

Research papers are characterized by many criteria that any researcher should follow carefully to write a successful paper. These characteristics may include (originality of the topic, the language used, type of references, paper format, etc).

2.2.4 Components of Research Papers

Research paper has various components that should be all present and followed carefully by the researcher. From what we studied before, the researcher's touch should be shown in all of these components that are listed orderly as follow:

> **Title:** From what we learned in research courses, the title should be catchy, not ambiguous, not too long, and not too short. Nair and Nair (2014, p.14) point that: "the title is an extremely important component of the paper". So, the research paper's title is crucial element. They add, "A good title will attract readers". In other words, catchy title let readers read all the paper because it attracts their attention. As Nair and Nair further add, effective research paper should:

- Contain as few words as possible and it is easy to be understood,
- Describe the contents of the paper specifically,
- Avoid abbreviations, formulas, jargon, verbs, and observations,
- Report the subject of the research rather than the results, and
- Follow the style preference of the target journal.

To conclude, one can say that research paper's title is a crucial element for the reason that it is a rudimentary(first or basic) image of the research paper.

> **Author and affiliation:** Researcher's name is required after the title. Figueiredo (2010, p.23) points that this latter element has to be written after the title followed by the name of university or institution that the researcher belongs to. Therefore, the author and university or institution names should be written under the title of the paper.

> **Abstract:** We learned from research courses that abstract refers to the summary of the conducted study and it should be written in one block. Figueiredo (2010, p.24) mentions that the abstract should be written in 200 words and states concisely. He adds, the abstract states:

- The work the authors did, which described in her/ his paper.
- How the authors did it, if relevant (the methods).
- The key results (numerically, if possible).
- The relevance and impact of those results.

In brief, the abstract summarizes the whole study the researcher conducted, it should be written precisely, concisely, and in one block.

Keywords: After the abstract the researcher should write keywords because they are important; especially, in online research papers, to ease searching process (Figueiredo, 2010, p.24). He adds, keywords are helpful because they indicate "index terms" that describe the topic; moreover, good selection of keywords makes research papers easy to access; especially, on digital libraries.

Introduction: The introduction explains the topic or the problem. For Nair and Nair (2014, p.18) an introduction explains why does the researcher tackled the topic; it gives the background that the reader needs to judge or understand; moreover, it explains the objectives of the study. They add, an introduction should be relatively brief, avoid repetition, and may use different verb tenses. To clarify Nair and Nair idea, the introduction should contain the reasons behind choosing the discussed topic to help reader making judgment also, it should be brief that comprises only highlighted notes of the study.

Body of the Paper: This element refers to the details of the study. Figueiredo (2014, p.24) introduces this component as a description through different parts or paragraphs of the whole points of the study; moreover, it is the core of the research paper that contains two sections (the components of a research paper and additional considerations). So the paper's body is the core of the study, i.e., it is the detailed information of the study.

Conclusion: It is the summary of the whole paper. Figueiredo (2014, p.25) says that this element should be clearly stated and covers the summary of study results that are described on the research body, highlights its "novelty and relevance", and

assesses the benefits and limitations of the study. The conclusion should be brief and cover all the study essentials at the same time.

References: They refer to all sources that have been used by the researcher while writing the research paper; they are varied in kinds such as: books, articles, lecture notes… etc.

All in all, research paper comprises a number of elements the researcher should know because they should be written carefully and orderly. A good writing of research paper elements contributes on its quality.

2.2.5 Types of Research Papers

Research papers are varied in type depending on their objectives, duration, length, and components. Carlock et al (2017, pp.2-3) list the main research papers' types as follow:

Essay: Is a short piece of writing that is narrow and focused. It is written based on scholarly research, personal evidences, or factual evidences; furthermore, essay is similar to research paper in organization (introduction, body, and conclusion) yet, they differ on the length of elements.

Research Paper: This type of research paper is conducted for academic courses requirements for both undergraduates and graduates. Teachers in higher education ask learners to write research papers frequently to support their personal perspectives by using others' opinions; moreover, writing research papers needs time, energy, and focus.

Report Research Paper: Is an undergraduate course element that students discuss a topic by using others' opinions without indicating personal ones; additionally, writing a report research paper requires different kinds of sources, and its information should be well-organized and coherent.

Argument Research Paper: Is conducted in higher education setting, it deals with the use of others' works and judging them before it is used by the researcher to defend his opinion; in addition, this type of research paper is characterized by giving suggestions or future researchers on its conclusion.

From what has been mentioned previously, it can be synthesized that research paper has different types that is conducted in academia. The variety of research papers isbased on their length, aims, time, and elements.

2.2.6 Challenges in Writing Research Papers

Writing a research paper is not an easy task. Students face a number of obstacles in research paper writing process. Rambo (2016) points out that weak organization is one of the challenges that affects research paper quality because it makes the reader or the writer loses the main idea of the paper; in addition, to poor support and development of ideas which have negative effects in making the researcher's opinions unjustified enough. He adds, weak use of sources is mostcommon in students research papers that touches the credibility of research (unintentionally plagiarism) also, excessive errors make the language of the paper poor and maybe misunderstood and this reduces learners' grades. Consequently, writing a research paper is not easy; learners as novice researchers should follow all research paper steps for writing an effective correct paper.

2.2.7 Steps in Writing an Effective Research Papers

Writing an effective research paper demands certain steps to follow. Shewan (2000, p.2) outlines the basic steps that writers of research paper should know, these steps are:

- Selecting and limiting the topic.
- Carrying out initial library research. Gathering resources and preparing a "works cited" page.
- Determining what a thesis statement, limiting ideas, and audience.
- Writing out thesis statement and general outline.
- Doing detailed library research by reading and taking notes.
- Preparing a detailed outline from note cards.
- Writing first draft.
- Doing additional research if necessary.

- Editing and write second draft.

- Typing the paper, including parenthetical ideas.

- Checking spelling and proofreading the work.

- Producing the final draft.

The aforementioned steps are crucial to write a successful research paper, yet Shewan (2000, p.2) adds that the writer is not supposed to follow them orderly. As a conclusion, we can deduce that research paper is a tool of practicing research in higher education and it is used as teaching technique to prepare skillful researchers, consequently, this may ease their final research writing and enhances its quality.

Conclusion

This chapter was an attempt to review the essentials of research and research paper. It was divided into two sections; through the first section, we attempted to present an overview about research definition, significance, types, characteristics, settings where does it occur; in addition, educational and action research, research in English foreign language education, research in educational psychology, and research forms. The second section, traced the basics of research paper definition, significance, characteristics, components, types. Moreover, it presented challenges and steps to writing a research paper.

Chapter Three: Fieldwork and Data Analysis

Table of Contents

Introduction

The present chapter deals with the field work of the study that consists of two parts. The first part deals with the theoretical background of the research methodology of the under-investigated study; namely, research approach, research design, population, sampling, and data collection methods. On the other hand, the second part aims to check the effectiveness of the use of research papers as a technique to develop EFL students' critical thinking from EFL students' perspective. Furthermore, it presents detailed analysis and interpretation of the gathered data; besides, discussing and synthesizing the findings. In addition, it presents the resulted findings to check the validity of the suggested hypothesis.

3.1 Research Methodology

Every research requires a specific research methodology that the researcher goes through while conducting her/ his research.

3.1.1 Research Approach

On its general sense, research approach can be defined as the theoretical framework of a research that a researcher chooses depending on the nature of her/ his study. Besides, we studied also that research approach comprises three types (qualitative approach, quantitative approach, and mixed-method approach). Creswell (2014, p.4) states the difference between these types of research approach; on the first hand, he says "qualitative approach is an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human people". To explain, this type of research approach deals with describing, exploring, or understanding a specific phenomenon.

On the other hand, he defines quantitative approach by stating that it is "an approach of testing objective theories by examining the relationship among variables (…) it can be measured (…) using statistical procedure". To simplify, quantitative approach deals with testing theories or relationships between variables, and measuring data using statistics. Finally,

A mixed-method approach according to Creswell (2014, p. 4), "is an approach to inquiry involving collecting both quantitative and qualitative data (…) and using distinct designs that may involve philosophical assumptions and theoretical framework". In other words, mixed-method approach combines both quantitative and qualitative research approaches hence; it deals with people's ideas and attitudes; in addition to the use of numbers and statistics.

To conclude, research approach is the framework that researchers follow; it has three types (qualitative, quantitative, and mixed-method approaches). The researcher can use more than one approach to deal with her/ his study depending on its nature.

3.1.2 Research Approach for this Study

Since the aim of this study is to describe the role of research papers in enhancing EFL learners' critical thinking and to find out the link between these variables (how one can enhance the other), this study adopted the mixed-method approach (qualitative and quantitative approaches). For the reason that it is suitable for the nature of the present study, it helps to get more detailed and credible responses. More importantly, it gives the chance to know teachers' and students' attitudes and ideas towards the use of research papers as technique for enhancing EFL learners' critical thinking.

3.2 Research Design/ Strategies

Any researcher should be familiar with her/ his research design and choose it carefully because it is essential for the research organization. Gorard defines research design (2013, p. 8) as follows:

> Research design in the social sciences is a way or organizing research project or program from its inception in order to maximizing the likelihood of generating evidence that provides a convincing answer to the research questions for a given level of resources.

In other words, research design is a way of organizing the research from the first to the last step to obtain credible results. Research design has different forms; for this, Bhattacherjee (2012, pp. 39- 40) dictates a series of research designs such as: (field survey, experimental

studies, cross-sectional field survey, longitudinal field survey, focus group research, action research, and case study research).

3.2.1 Research Design for this Study

Due to time and our research nature, a case study (small-scale study) is adopted as research design for the present study. The main reasons behind choosing this research design are as they listed by Zainal (2007, pp.1-6), case study simplifies the complexity of the discussed issue and makes it easy to be understood; it helps to describe the data in real life at macro level and gives a deep insight into the behaviors of the subjects. Thus, this type of research design is suitable for our study.

3.3 Sampling and Population

To check the validity of the hypothesis and gather some information which help answering some research question, the researchers dealt with EFL teachers and students to collect their feedback to feed the study.

- **For Teachers**

From about (n=50) teachers of English Language at Mouhamed Kheider University of Biskra, the researcher dealt with nine (n=9) volunteer teachers who were chosen randomly. Those teachers teach different levels and different subjects.

- **For Students**

The population of this study was Master One EFL students (Science of the Language) at Mouhamed Kheider University of Biskra. There are many reasons behind choosing this population is that first year master students are supposed to submit their final project next year so, working with them gives them the chance to be familiar with the topic. More importantly, we have chosen first year master EFL students because we observed that they practice research papers as assignments so, as novice researchers they need effective, practical and easy techniques to guarantee their development in critical thinking and experience in doing research.

Thus, from a population of about (n=175) students, the researcher discussed with the supervisor and decided to deal with twenty-five (n=25) who have been chosen according to a random volunteering technique.

3.4 Data Collection Methods

Data collection methods are the ways that a researcher uses to gather data. According to Walliman (2006, p.83), data collection methods can be defined as "raw materials" that any researcher needs when doing her/ his research depending on the research problem besides depending on the methods used by the researcher. She/ he may interpret to have effective results. To clarify, data collection methods are essential to have effective results; thus, the researcher should carefully choose them behind taking into consideration her/ his research theme. Additionally, there are several methods to collect data such as questionnaires (structured, semi-structured, and unstructured), interviews (structured, semi-structured, and unstructured), observations (active and passive), focus groups, and quasi-experiments.

In our study, we dealt with both, an interview (semi-structured) to gather data from EFL teachers and a questionnaire (semi-structured) to collect data from First year master students.

3.4.1 Interview

The interview is a method of collecting data that is used by a number of social sciences researchers. To describe it, one can say that it is a number of questions (open-ended, close-ended, or mixture between them) that shows its type (structured, semi-structured, or unstructured). The researcher (interviewer) asks the interviewees (teachers, experts …) to gain data; therefore, it should be face-to-face and recorded.

3.4.2 Questionnaire

Like the interview, a questionnaire is a method of data collection that is used by most of social sciences researchers because it suits most of their studies. It can be described as a booklet (more than two pages) that contains researcher's personal information and a series of questions divided into sections. Moreover, the questions can be (open-ended, close-ended, or mixture between them) and this determines the type of the questionnaire (structured, semi-structured, or unstructured).

3.5 Data Analysis and Procedure

The researcher is going to analyze the data through counts, and percentages by using statistics with the questionnaire and descriptive analysis with the interview to see teachers' and students' attitudes towards critical thinking and research papers and what they answer with.

3.6 The Interview

The main tool that the researcher used for her study was a semi-structured interview which was administrated to EFL teachers at the University of Biskra. It aimed to obtain EFL teachers' feedback and attitudes towards the use of research papers as a technique to develop EFL learners' critical thinking.

3.6.1 Description of the Interview Used for this Study

The study interview is designed to collect data from EFL teachers at Biskra University. It is a semi-structured interview consists of thirteen (13) questions (open-ended and close-ended questions) to limit teachers to researcher's theme boundaries and make them free in giving much more details about our theme. From the designed interview, we aimed to check whether cognitive skills are crucial in EFL teaching-learning and spotted the light on what does critical thinking mean to them and how and what do they use to evaluate their learners'

level of critical thinking. In addition, our intention was to gather teachers' opinions about the use of research papers as a technique to develop EFL learners' critical thinking. Besides, the purpose of the interview was to check if teachers think that research and critical thinking are interrelated and what kind of relationship exists between them. Finally, we left them the opportunity to add whatever they want (comments, suggestions, etc).

3.6.2 Aim of the Study's Interview

The under-investigated study interview was designed for EFL teachers at the University of Biskra. It was used to collect data from their opinions and attitudes towards the role of research papers as a technique to develop EFL learners' critical thinking.

3.6.3 Piloting and Validation

After designing the interview, the supervisor suggested to choose one or two teachers and do the piloting stage before the final administration. In fact, the purpose of the piloting stage was to check if the interview' questions were comprehensible, repeated, ambiguous, or lengthy. However, the main aim of piloting stage was for the purpose of gathering teachers' feedback and remarks then taking them into consideration while preparing and starting the final administration.

The piloting stage took place on February, 2019; it took a week because teachers were not free. Besides, it was face-to-face and recorded interview. While doing the interview, we observed that teachers answered in a comfortable way. Then, at the end of the piloting stage, we remarked that none of teachers found any ambiguity or repeated question(s).

3.6.4 Administration

For the administration phase, the interview was designed as a semi-structured interview administrated to teachers of the division of English at Mohamed Kheider University of Biskra. In anticipation, the researcher printed some copies (we did not need them at the end) for teachers who may not have time to do face to face interview. In fact, the interview was administrated to nine (n=9) teachers; it was face to face and recorded with all of them.

Additionally, the interview took a month from February 10, 2019 to March 11, 2019, for many reasons such as: teachers were not all time available, some of them gave rendezvous, and others do not like to do interview. Furthermore, during the period of data collection, the interviews took between 8 to 15 minutes and all teachers gave beneficial answers and rich information.

3.6.5 Analysis and Interpretation of Teachers' Interview

As a tool to collect data from teachers, this interview is designed to gather information opinions, thoughts from teachers that will be analyzed, interpreted, then used to reinforce our study.

Item 01: Teachers' degree

Teaching at university level does not restrict to Doctorate degree so, from this item we estimated to know teachers, who we worked with, degrees (Doctorate, magister, or master).

Table 3.1: Teachers' Degrees

Option	Number
Doctorate	3
Magister	6
Master	0
Total	9

From teachers' responses, it is observed that the majority of teachers six (n=6) teachers have Magister degree while three (n=3) others have Doctorate degree; however, none of them has the master degree. This latter is beneficial for us; for the reason, that it helps us to collect data from teachers with different high degrees.

Item 02: Teachers' experience in teaching EFL

From this item, we wanted to have an idea about how long have teachers been teaching EFL at university by giving them choices (1-5 years, 5-10 years, or more than 10 years).

Table 3.2: Teachers' Career in Teaching EFL

Option	Number
1-5 years	2
5-10 years	4
More than 10 years	3
Total	9

Teachers' responses indicate that their EFL teaching careers are different. Four teachers (n=4) teach EFL from 5-10 years; whereas, three teachers (n=3) teach EFL from more than ten 10 years; whereas, while the rest two (n=2) teachers teach EFL from 1-5 years (teacher 2 and 8). The variety of teachers' periods in EFL teaching at university positive for the researcher, because it guarantees that the next responses will be gathered from teachers with different experiences in teaching EFL at university level.

Item 03: The importance of teaching-learning cognitive skills

This item was for checking teachers' thoughts about the importance of teaching-learning cognitive skills; whether it is beneficial to be learned and taught or not. Then, we asked them to justify whatever their answers (yes or no).

Table 3.3: The Importance of Teaching-learning Cognitive Skills

Option	Number
Yes	9
No	0
Total	**9**

All teachers agreed that cognitive skills are necessary in EFL teaching and learning operations and showed their great role. Moreover, while teachers justified their responses, the majority of them asserted that cognitive skills are among the pillars of successful teaching learning. To sum up teachers' justifications (teacher 1, 3, 6, and 7) mentioned that cognitive skills are the core skills in helping students to remember, memorize, and think. In addition, both (teachers 2 and 4) pointed that cognitive skills have to do with critical thinking, which is crucial in teaching learning. Furthermore, (teachers 5 and 8) said the cognitive skills are important in teaching-learning EFL because learning at university is more different from previous levels (secondary and middle education). Therefore, students need those skills to produce more and to be active. Yet teacher 9 said that cognitive skills contribute in improving learners' comprehension, raise their awareness about how language works, and improve their critical thinking awareness.

From the aforementioned, all teachers confirmed that cognitive skills are crucial element for successful EFL teaching learning process and for enhancing learners' critical thinking for a number of reasons like helping students to improve their scores, to rich high level of critical thinking, and to be active students.

Item 04: Cognitive skills that have a great impact on EFL students' learning

Through this item, we estimated to collect which of the cognitive skill (s) is (are) of great impact of EFL students learning process by suggesting them some of the cognitive skills such as (understanding/comprehension, interest, creativity, critical thinking, or all of them).

Table 3.4: Cognitive Skills That Have a Great Impact on EFL Students' Learning

Option	Number
a- **Understanding/ comprehension**	0
b- **Interest**	0
c- **Creativity**	0
d- **Critical thinking**	1
e- **All of them**	5
f- **Understanding and creativity**	3
Total	9

According to teachers' response five (5) out of the nine (9) teachers argued that all the cognitive skills have an equal impact on EFL students' learning.Yet, three (n=3) teachers pointed that EFL students' learning needs much more understanding/ comprehension and critical thinking skills. However only one (n=1) (teacher 5) who claimed that critical thinking is the skill that has an impact on EFL students' learning.

Hence, all teachers responses indicates that critical thinking has a great impact on EFL students' learning; either alone, or with other skills. This proves its requirement in EFL learning process.

Item 05: Meaning of critical thinking from EFL teachers' perspective

Through this item, EFL teachers defined critical thinking each one from each point of view with her/ her own words.

Teacher 01: It is an objective analysis of facts and postulate to form a judgment about any topic.

Teacher 02: It is the process of analysis in order to understand; it is a systematic operation that characterizes the reasoned thinking.

Teacher 03: It is to go beyond the information as in reading, it is not just to read but to evaluate, judge, and being creative.

Teacher 04: It is the ability to comprehend, evaluate, analyze, synthesize, and it is crucial in problem solving.

Teacher 05: It is the ability to think deeply by analyzing, reasoning, and evaluating information in an objective way.

Teacher 06: It is when a student is able to read between lines.

Teacher 07: It is the process of analyzing, evaluating, synthesizing, and criticizing.

Teacher 08: It is a part from intelligence; it is a matter of reception, analyzing, and producing.

Teacher 09: It is the mental process that enables students to think out of the box and free their thinking limits from its usual routine to search for creative ways.

All teachers defined critical thinking each one from her/ his point of view, but from their definitions, we infer that critical thinking is the process of analyzing, evaluating, and problem solving. Hence, there are some teachers, who added some information about critical thinking definition, five 5 teachers (teacher 1, 3, 5, 6, and 8) added that critical thinking is a matter of objectivity and ability as teacher 5 said "it is the ability to think… in an objective way". While only one teacher (teacher 8) who claimed that critical thinking is linked to intelligence as a part of it.

From teachers' responses, we deduce that critical thinking is a matter of objectivity, intelligence, being active, and going beyond information to reformulate it in one's own words. To simplify, it is the ability of analyzing, reasoning, evaluating, synthesizing, and solving problems.

Item 06: The position of critical thinking

To know what place does critical thinking take especially in education we asked this question to collect ideas from teachers.

Teacher 01: If instruction is devoted to raise students' critical thinking, it will help them to be engaged in a much more reflective, critical, and logical learning environment.

Teacher 02: It is the basic skill.

Teacher 03: It is a needed skill if we want to succeed and be effective.

Teacher 04: It is an important and should be present in teaching and learning because thinking critically means to teach and learn effectively.

Teacher 05: It is a required skill that learners should have to solve problems, learn effectively, and achieve well.

Teacher 06: It is important, and learners need to develop their critical thinking.

Teacher 07: It is very necessary teaching and learning because successful learning is not just to accept any information, but to choose what is needed and what is not.

Teacher 08: It is a necessity; if an individual does not use her/ his own critical thinking in academia so, this person is irrelevant.

Teacher 09: It is necessary in every step of learners' studies and daily life.

Through the above responses, teachers showed the importance of critical thinking especially in teaching and learning as (teacher 4) who asserted, "Thinking critically means to teach and learn effectively". However, all teachers agreed upon the idea of critical thinking as a basic, an important, and a necessary skill yet, (teachers 3, 5, and 7) added that critical thinking is linked and needed for success.

Furthermore, (teacher 1) pointed that it is helpful for students to be active and to create effective learning environment. Likewise, (teacher 6) insisted on learners to develop their critical thinking while (teacher 8) claimed that the person who is not a critical thinker, she/ he does not belong to academia. Ultimately, (teacher 9) added that critical thinking is crucial in school and daily life.

The aforementioned responses stimulate the important role of critical thinking and its requirement by teachers as a crucial condition for EFL teaching and learning success for the reason, that it is the pillar of students' success.

Item 07: Teachers' evaluation of their students' critical thinking

Through this question, we aimed to have an idea about students' level of critical thinking; in other words, what is the level of critical thinking of EFL students' at University of Biskra.

Teacher 01: Tests, evaluations, and tasks

Teacher 02: Through their reactions to the information they receive

Teacher 03: Through the correction of their given tasks

Teacher 04: Critical thinking is absent between our students

Teacher 05: Average, it is not easy even good students do not like to let themselves to think or they do not know how to think. Most of them like things ready.

Teacher 06: All students have highly critical minds, but as all students, they do not like to read, they read only for the sake of reading. So, if teachers push students to read, to analyze and to criticize they will find amazing thoughts.

Teacher 07: It is average, students like to be spoon-fed, they do not engage or go beyond information, and they just receive.

Teacher 08: It is hard to evaluate learners' critical thinking especially the new ones because they used to learn with a specific way. Therefore, it is difficult for them to adjust with the university way of learning. The majority of their level is weak.

Teacher 09: Critical thinking could not be evaluated, but rather it could be boosted and used in every stage of the lesson.

Despite the interrelatedness of the above responses, teachers' responses is-à-vis their justifications were divided into two divisions. This latter probably reflects their

misunderstanding of the question. On one side, the first division gave the rate of EFL students' critical thinking level, (teacher 4) pointed that critical thinking does not exist at all among students. (Teacher 7) joined his voice to (teacher 5) and claimed that students' level of critical thinking is average and both justified their responses by saying that most of students if not all of them do not like to go deep in information. From what we understood, all students learn with a passive way, they do not engage or try to be autonomous.

Yet, from what (teacher 6) pointed, we extract that all students are critical thinkers they just lack practice and teachers as guiders they should compel them to practice. As a reason of the weak level of students' critical thinking, (teacher 8) justified his response by saying that it is difficult especially among new students to acclimate with university methodology of teaching. Besides, (teacher 9) gave a very different answer; he pointed that critical thinking cannot be measured, but it can be improved and used in all lesson's duration. So, as the majority of this division claimed, the weak level of EFL students critical thinking at University of Biskra may be due to many reasons such as: students lack practice, they do not work by themselves, and their role is to receive information as they are.

On the other hand, the second division as (teachers 1, 2, and 3) provided us with the method they use to evaluate their students' level of critical thinking. In fact, the suggested ways of evaluation given by (teacher 1) cannot be used only to evaluate, but also they can be used to boost and enhance EFL students' critical thinking because they lack practice. According to (teacher 2) the reaction the teacher observe when students receive information can be considered as yardstick to evaluate their level of critical thinking while for(teacher 3), the correction of tasks can determines students' level of critical thinking. As a result extracted from the interviewed teachers, half of teachers said that EFL students at University of Biskra have an average or a weak level of critical thinking because of their passivity and lack of practice, while the other part has said that they adopt certain methods as yardsticks to evaluate their learners' critical thinking.

To combine the two divisions, one can say that since the level of students' critical thinking is weak, teachers as guiders should motivate students to boost their critical thinking by giving them tasks and activities to make them practice and show their amazing thoughts.

Item 08: Characteristics of critical thinkers

From this item, we aimed to collect teachers' thoughts about critical thinkers' characteristics, which make them different from other people.

Teacher 01: Independent, self-reliant, autonomous

Teacher 02: Active and have skeptical minds

Teacher 03: They are the students who think actively, evaluate their learning, ask questions, and analyze every learning task. They are curious, risk takers, and autonomous

Teacher 04: A critical thinker is the one who is able to solve problems

Teacher 05: They are creative, know how to observe, think deeply, and they know how to evaluate and make the difference between objective (valid) and subjective data, and open-minded (ready for new things)

Teacher 06: Critical thinkers are the ones who are objective, do not accept anything, have strong   personality in terms of deciding what is good and what is not

Teacher 07: Critical thinker is the one who goes insight information

Teacher 08: Critical thinkers are able to read between lines to analyze, to conclude after analyzing, and to test. They have a specific methodology in dealing with things

Teacher 09: Critical thinkers question every piece of information to find solution and put theory   into practice.

From what the interviewed teachers demonstrated above, (teacher1, 2, 3, 4, and 7) provide a list of characteristics that proves that students as critical thinkers are unique and special such as the ones who are independent, who have skeptical minds, who take risks, who are able to solve problems, and who go beyond the information. This latter summarized and explained by (teacher 5). Thereupon, as an outcome, critical thinkers are autonomous, active, and go deep in the information. On the other hand, the other teachers gave critical thinkers characteristics in form of expressions.

Critical thinkers have strong personality; (teachers 6) argued with previous teachers in terms of objectivity and the acceptance of things, she added that strong personality makes the person decide what is beneficial for the students and what is not. Consequently, strong personality guarantees high level of critical thinking. Accordingly, critical thinkers have specific ways of thinking and dealing with things, as (teacher 8) stated "they have specific methodology in dealing with things" and confirmed by (teacher 9) when he stated that critical thinkers question information and test them before having a conclusion (solution).

All in all, critical thinkers are different; especially, in academia because of their specific methodology. To be precise, the characteristics of students as critical thinkers are: being autonomous, open-minded, have strong personality, active, and ask questions.

Item 09: Difficulties in teaching critical thinking

The purpose of this item is to check whether teaching critical thinking is difficult or not, and to collect reasons behind its difficulty (Yes or no).

Table 3.5: Difficulties in Teaching Critical Thinking

Option	Number
Yes	8
No	0
Others	1
Total	9

It is clearly observed that the majority of teachers confirmed that critical thinking is difficult as a task to be taught. However, only one teacher (teacher 4) who pointed that critical thinking can be promoted not be thought. Thus, critical thinking is not easy to be taught.

Teachers' Justifications of their Answers

Teacher 01: Because the multilevel classes are the main challenge to raise students' critical thinking.

Teacher 02: Most of students are passive thinkers; they do not make efforts to go beyond information.

Teacher 03: Thinking critically needs some cognitive skills that should be developed inside or outside the classroom. Teaching critical thinking requires many practices to make it easy.

Teacher 04: Critical thinking cannot be taught; it could be developed and promoted.

Teacher 05: Because learners do not use their previous knowledge, logic, intelligence, focus, and deep concentration

Teacher 06: Because people's minds are different

Teacher 07: It needs many activities.

Teacher 08: Because in adopting critical thinking to EFL teaching, teacher has to have clear methodology, objectives, and has to know students' needs and capacities.

Teacher 09: It should be integrated inside and outside classroom activities to make learners autonomous.

Teachers' justifications proved that critical thinking has different types of difficulties each one gave different reason such as the different level of students in one class can be a challenge that faces their critical thinking and abstract its teaching and development pointed by (teacher 1). Also, students themselves are another reason behind critical thinking teaching difficulty. This latter confirmed by (teachers 2 and 5) who agreed that students are responsible for their critical thinking; in other words, the impassivity and laziness of students impede the process of teaching critical thinking.

Another reason given by (teachers 3, 7, and 9) who affirmed that critical thinking teaching does not limited only in classroom, but it exceeds it so, students should learn it from classroom and outside classroom by training themselves. Additionally, teaching critical thinking is difficult for the reason that some teachers do not draw the objectives of lessons and do not know the needs of their students. Hence, they should adopt a specific methodology of teaching depending on the previous two elements as stated by (teacher 8). Since critical

thinking is related to psychology and cognitive psychology, (teacher 6) highlighted that the difference between people's minds can be considered as a reason of critical thinking teaching difficulty.

From teachers' responses and justifications, we extract that the diversity in teachers' justifications reflects the complexity of critical thinking teaching. Hence, there are many reasons that make critical thinking difficult task to be taught such as, the multilevel classes, the students' passivity and laziness, taking classroom as the only place of learning critical thinking, teachers and their adaptation of non-suitable methods of teaching, and the difference between students minds.

Item 10: The main instructional strategies that teachers should use to develop their students' critical thinking

From this item, we opened door for teachers to provide us with strategies that can be effective to develop students' critical thinking.

Teacher 01: Involving students in the preparation and presentation of the lesson, and assigning more practices during the lesson in form of group activities

Teacher 02: Asking questions, tasks, activities, and research papers

Teacher 03: Giving them activities that help them to think, analyze, discuss, and judge

Teacher 04: Basing instructions on tasks that can help learners use their thinking

Teacher 05: Asking questions, use peer or group work, use problem solving activities, and research papers

Teacher 06: Guiding them, giving them room to speak their minds

Teacher 07: Train them to be autonomous by making them analyzing and evaluating what they learn

Teacher 08: Avoiding making them spoon-fed and asking them questions as a teaching methodology

Teacher 09: Problem-solving activities, monitoring them by training them to be thinkers not only receivers

Despite of the different strategies suggested by teachers such as: asking questions, group work, tests, problem solving activities, and avoiding spoon-feed, it is observable that teachers should deal with students as thinkers not as receivers by making them practice more and train them. More importantly, (teacher 2 and 5) mentioned research papers as technique used to develop students' critical thinking, which extremely supports the researcher hypothesis. Thereupon, developing students' critical thinking is based on adopting strategies that require much more training.

Item 11: The usefulness of assigning research papers as a teaching-learning strategy

We estimated from this item, we aimed to check to what extent can research papers be effective technique in teaching and learning EFL (Very useful, somehow useful, or not useful at all).

Table 3.6: The Usefulness of Assigning Research Papers as a Teaching-Learning Strategy

Option	Number
Very useful	8
Somehow useful	1
Not useful at all	0
Total	9

As it is illustrated above, a considerable number of teachers agreed that research papers are very useful as teaching learning strategy; however only one teacher who claimed that they are somehow useful because of certain factors. Hence, assigning research papers are beneficial as teaching-learning strategy.

Teachers' Justifications of their Answers

Teacher 01: It trains them to think critically, improves their cognitive skills.

Teacher 02: They are interrelated; especially, in conducting research you should have such a skill. On the other hand, the process of research polishes critical thinking skills.

Teacher 03: When assigning research papers, students are supposed to plan, read, research, analyze, and summarize. If they do so, this can be a successful teaching and learning strategy.

Teacher 04: They urge learners to read about what others have written then they have to summarize the relevant ideas. In doing so, critical thinking could be frustrated.

Teacher 05: When students are assigned to research, they have to select useful information and not only copy all what they find. They read, analyze, evaluate, and write.

Teacher 06: Due to time factor, number of students, and assessments, but it is very useful with Master students.

Teacher 07: Because it is very necessary to give students research papers to work on because they require many skills reading, writing, collecting data…etc. I think   they are very good as a way of teaching and learning.

Teacher 08: Because university students are not passive receivers of information; they should be participants in learning process and they are not just students but they are future researchers.

Teacher 09: Doing research papers about each part of the lesson can boost learners' knowledge and thinking due to learning autonomously and through extensive reading.

The teacher (6) who claimed that research papers are somehow useful justified her answer by stating that they are not all the time useful due to time and overcrowded classes. Thus, research papers as a strategy is useful but it requires certain conditions. However, who said that they are very useful, justified their answer by asserting that they make students active and learn autonomously. Accordingly, as teachers stated in (question 9), they suffer from the impassivity of students; therefore, from the above justifications research papers as teaching

and learning technique give the chance to students to be active and learn autonomously by reading, analyzing, synthesizing, and summarizing. Furthermore, the majority of teachers explained their opinions by linking research papers to critical thinking either directly (teacher 1, 2, and 4) or indirectly (teacher 3 and 5) and this is another point that support our hypothesis.

Consequently, research papers have link with critical thinking in terms of practice, they are beneficial to have active learners, and adopting them as teaching-learning strategy requires certain conditions as time allowed and non-overcrowded classrooms.

Item 12: Skills that can be developed through assigning research papers

This designed item sought to know which skills could be developed through assigning research papers (personal skills, academic skills, cognitive skills, or all of them).

Table 3.7: Skills that can be developed Through Assigning Research Papers.

Option	Number
Personal skills	0
Academic skills	0
Cognitive skills	0
All of them	9
Total	9

The total number of the interviewed teachers agreed that research papers as a chance of practice at university contributes in developing all research skills. Since teachers proved that research papers have a great role in developing a number of research skills, this latter comprises many other skills that are mentioned above. Therefore, research papers are deserved to be adopted as teaching-learning technique; especially, at university because students are considered as researchers.

Item 13: The existence and the kind of relationship between conducting research and critical thinking

We estimated from this item to collect teachers' opinions about the existence of relationship between conducting research and critical thinking (yes or no).

Table 3.8: The Existence and the Kind of Relationship between Conducting Research and Critical Thinking

Option	Number
Yes	9
No	0
Total	9

The above answers illustrated, that the total number of interviewed teachers (9) answered with "yes", which means that there is a relationship between research conduction and critical thinking.

Then, to specifying what kind of relationship they share if it exists, we asked teachers to specify the relationship that exists between critical thinking and research (Critical thinking is crucial for conducting research and conducting a research contributes in the development of critical thinking; they are interrelated).

Table 3.9: Kind of Relationship between Critical Thinking and Research Conduction

Option	Number
Critical thinking is crucial for conducting Research	0
Conducting a research contributes in the development of critical thinking	0
They are interrelated	9
Total	9

To specify what relationship between conducting research and critical thinking, all teachers agreed again and stated, "They are interrelated". This latter, reflects that they cannot be separated and each one enhances the other and they share exchangeable relationship.

Hence, to simplify teachers' point views proved that conducting research contributes in enhancing students' critical thinking and critical thinking enhances the quality of research that reveals they exchangeable relationship.

The following item: Teachers' suggestions or comments

Through this item, we demand from teachers to comment or add any suggestion, some of them as (teachers 1, 2, 3, 7, and 9) merely supported us and showed their admiration towards the topic whereas the other teachers mentioned things that can ameliorate the level of EFL students at the University of Biskra. Since the previous questions deduced that students' level of critical thinking takes a place at university level, (teacher 4) pointed, "it is important to talk about critical thinking that is important in teaching-learning and it is one of the observable problems that exists in our students". This has been shown in the previous responses when teachers declared that the level of students' critical thinking is weak. However, (teacher 5) focused on the role of research papers and she mentioned that they make learners learn autonomously and this latter enhance learners' critical thinking; furthermore, (teacher 5) raised the awareness that teachers and students should get rid of the idea of "spoon-fed".

Another suggestion by (teacher 6), she asserted "students need to learn how to conduct properly academic research papers with the guidance of an assistant to avoid plagiarism; if they do so bit by bit they will develop their critical thinking". In other words, we deduce that research papers are crucial for EFL students to raise their level of critical thinking. In the same path, (teacher 8) claimed that it would be better if EFL teachers adopt research papers as assigning tool starting from 2nd year and raise the difficulty of learning. This leads to prepare good researchers.

From teachers' thoughts, we figured out that teachers as well as students should avoid spoon-fed also, teachers should assign students by giving the research papers because if they do so this will raise their level of critical thinking that is a crucial element at university level.

3.6.7 Discussion and Interpretation of the Findings

The obtained data from teachers' interview have provided us with wide range of rich information that is beneficial to answer some of our research questions that are intended to be investigated. From teachers' responses, we have deduced that cognitive skills have a vital role in EFL teaching learning because they are related directly to this operation success. More importantly, all the interviewed teachers agreed that critical thinking has the priority among the cognitive skills and they consider it as a pillar of success at university level especially in EFL teaching learning. Additionally, when the teachers asked about what makes critical thinking crucial, they highlighted that it is a part from intelligence, it makes students learn autonomously, and makes them active.

However, teachers have complained from the weak level of EFL students level of critical thinking, which they have referred it to the students laziness, impassivity, and lack of practice; therefore, they have raised the awareness of it's highly recommendation in EFL learning. Moreover, they have pointed that it is a complicated task to be taught; hence, they suggested a number of strategies they use to make students learn independently, practice more, and avoid spoon-feed; not only, but they urge students work for developing their level of critical thinking. According to them, students have to practice more and work on developing their critical thinking level inside or outside the classroom.

Among the strategies suggested by teachers, are research papers as a tool that train students more, make them active, and engage them in what they learn. Thus, they help them bit by bit to develop their critical thinking. For more details, when we asked teachers about the role of research papers as technique and their impact on EFL students critical thinking development, the majority of them stressed that using research papers is very useful and it should be adopted in our division as a method of evaluating students. Furthermore, they have pointed that research papers and critical thinking are interrelated in terms of the interrelation between both skills (research skills and critical thinking skills) so, we it can be derive that using research papers as technique has a vital role in developing EFL students' critical thinking.

To sum up, from data analysis and interpretations, it was observable that critical thinking is highly recommended condition for successful EFL teaching-learning process. Whereas EFL students have a weak level of critical thinking due to their impassivity and lack of practice so, teachers insisted to the need of their students' practice; therefore, they suggested conducting research papers assignments that give students the chance to practice. They add, research papers are very beneficial to develop EFL students critical thinking so, adopting them, as a technique will have positive results.

3.7 The Questionnaire

The second tool that the researcher used was a semi-structured questionnaire, which aimed to collect EFL students' feedback, comments, and attitudes towards the use of research papers as a technique to develop their critical thinking.

3.7.1 Description of the Study Questionnaire

The study questionnaire is the second tool of the under-investigated study. It was a semi-structured questionnaire addressed to EFL students at the University of Biskra, and it was divided into three sections:

Section One: General information (from item 1 to item 5)

The first section of this questionnaire contains five (5) questions aimed to collect general information about the respondents as: students' gender and how did they find learning at university with justifying their answer. Furthermore, the researcher intended to gather students' opinions towards if they find difficulties in learning at university and cite what difficulties they face. Also, we wanted to check if their application for Master degree was their personal choice or no. Eventually, the last question aimed to ask students about their attitudes towards how did they find learning at master level with justifying their answers.

Section Two: Critical Thinking (From item 6 to item 12)

The second section includes seven (7) questions focused on critical thinking. At the beginning, the students were asked to choose which factors they think they influence the

progress of learning at Master level. Then, it attempted to collect students' point views about whether cognitive skills are crucial for learning EFL or not and why. Additionally, we gave them options to choose which cognitive skill (s) has (have) great importance. Moreover, this section estimated to know what does critical thinking means to students by giving them some descriptions of critical thinking to choose among them. Furthermore, it helped us to have an idea about if students consider themselves as critical thinkers and what characterises them. At last, we aimed to collect students' beliefs about when can critical thinking help them in making decision.

Section Three: The Relationship between Critical Thinking, Research, and Research Papers Quality (From item 13 to item 18)

The third section of the questionnaire consists of six (6) questions, which focused on research and research papers. From this section, we aimed to gather students' thoughts about what strategies they think can improve their critical thinking skills by suggesting to them a number of strategies and research papers were among them. In addition, it attempted to know which of the mental activities did their teachers focused on. Moreover, it aimed to collect their opinions about the existence of relationship between critical thinking and research papers with specifying which kind of relationship is being existed between them. Furthermore, this section aimed to collect data about in which level of research can critical thinking has a great role. Besides, students were requested to give their opinions about research papers and their effectiveness as technique for developing research skills with justifying their answers. Finally, in the last question students were proposed to choose which of the skills that we suggested can be improved through research papers.

3.7.2 Aim of the Study's Questionnaire

The purpose of the under-investigated questionnaire was to collect data from EFL Master One Sciences of the Language students at Biskra University. It was used as a tool for the study to check what factors that EFL students think they can enhance their learning at their level. In addition, it aimed to check students familiarity with critical thinking and if they consider themselves as critical thinkers. Furthermore, it attempted to collect students' thoughts on the role of research papers as technique to enhance their critical thinking skills.

3.7.3 Piloting and Validation

After designing the first draft of students' questionnaire, the researcher pre-used it to verify its validity before the administration stage. Fundamentally, the piloting drafts were submitted hand by hand to six (6) students from our population on first year Master students of Sciences of the Language at Biskra University. In fact, the main aim of the piloting stage of the questionnaire was to check the questions difficulty, ambiguity, to verify the attractiveness of its layout, and to check if there were any repeated questions.

Due to students charged timetable, when we handed them the questionnaire on February, 21st, 2019, they spent a long time in answering it. Therefore, when they gave back the questionnaire they suggested that it would be better if the researcher posted it online because they do not have enough time to answer it in the classroom. More importantly, all students agreed that the questions were comprehensive, there was no ambiguity, the layout was attractive, and there were no repeated questions.

Apart from students' feedback, our supervisor made some beneficial remarks about some words and adverbs that were supposed to be changed or to be added in order to add more precision to the questionnaire. For more details, the supervisor proposed to change the option (c) on the question number two (2) by changing the adverb "so" to "very" (so difficult- very difficult). Moreover, he recommended re-ordering the option (a) on question number four (4) and re-write "you would like to raise your educational level" instead of "you would like to raise your level of education". Furthermore, the supervisor proposed to add the adverb " medium" in the table of the question number six (6) then, he asked to reformulate the question 14. From the aforementioned remarks, the students' and the supervisor's feedback has been taking in consideration one by one before and while designing the final administration draft.

3.7.4 Administration

After the piloting and the validation stage, we designed the final draft of the questionnaire. For the administration phase, we decided to distribute the questionnaire online through "Fecebook.com" as the students have suggested. Later on, after discussing with the

supervisor we decided to work with 25 students of first year Master of Sciences of the Language at the University of Biskra. In fact, the idea of using Facebook was beneficial; it gave us the chance to receive the intended number of answered questionnaire in a week from February, 26th, 2019 to March, 4th, 2019. In addition, it helped to receive totally clear and completed answered questionnaire.

3.7.5 Analysis and Interpretation of Students' Questionnaire

As a second tool to collect data for the under-investigated study, we designed this questionnaire to collect information, opinions, and thoughts from students then analyzed, interpret them to test (prove/ reject) our hypothesis.

Section One: General Information (From item 1 to item 5)

The foci of this section is to have an idea about our sample' gender, their opinions about learning at university, the difficulties they faced, their application for master degree, and their opinions about learning at master level.

Item 01. Students' gender

This item illustrated respondents' gender distribution (Female or male).

Table 3.10: Respondents Gender Distribution

Option	Number	%
Female	20	80%
Male	5	20%
Total	25	100%
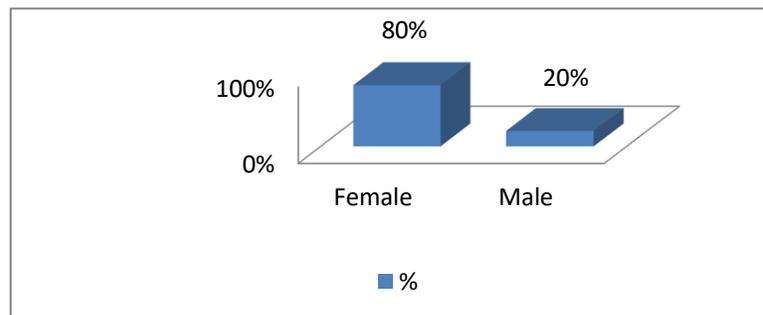
Graph 3.1: Respondents Gender Distribution

The table (3.10) demonstrates the distribution of gender in our sample. As it is shown, it presents the number as well as the percentage of females and males. Additionally, it is observable that 20 respondents (80%) were females, whereas five (5) respondents (20%) were males. This clarifies that the majority of our sample are females. This means that females are more interested in learning English especially at master level.

Item 02.Respondents' opinions about the difficulty of learning at university

This item aimed to check EFL students' degree of difficulty of learning at university (easy, difficult, or very difficult).

Table 3.11: Respondents' Opinions about the Difficulty of Learning at University

Option	Number	%
Easy	12	48%
Difficult	13	52%
Verydifficult	0	0%
Total	25	100%
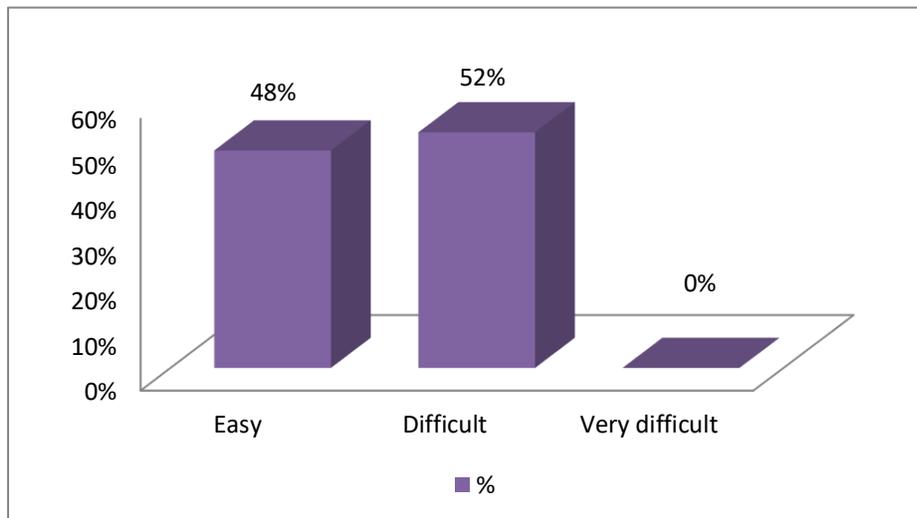
Graph 3.2: Respondents' Opinions about the Difficulty of Learning at University

This question was asked to respondents to give their evaluation about learning at university. As the table indicated, the majority (nearly the half) of respondents 13 respondents that represent (52%) noted that learning at university is difficult, while 12 respondents that represent (48%) claimed that learning at university is easy; however, no respondent (0%) think

that learning at university is very difficult. As a result, the level of difficulty of learning at university is limited between easy and difficult, while very difficult is an excluded rate.

Respondents' Justifications of their Answers

In this question, the respondents were asked to justify their answers. Their justifications were varied and convinced. On one hand, most of students who answered with "easy" pointed that studying and passing the years is not that big difficulty. In the same path, others named some factors which make learning at university easy for them such as " working hard", "working seriously", and " using materials provided by teachers" , this latter was summarized by one respondent by saying " it is quite easy since we are doing our best, attending lectures, and taking the learning process seriously". So, according to our respondents, learning at university is easy with seriousness, attendance, and working hard.

On the other hand, those who answered with "difficult" justified their answers by highlighting "environment such as campus, transportation and timetable not fit for best learning experience". Therefore, the external factors also can affect learning at university. Additionally, the other justifications denoted that examinations are the reason behind the difficulty of learning process; one of the respondents said, "Exams are not for testing, they are for challenging! Some teachers want to prove themselves; evaluations are not fair at all". Moreover, a big number of students limited the difficulty of learning at university to learning in master level; they agreed that learning at license level is easy buy at master level is complicated because it requires conducting research.

From respondents justifications, we extracted that learning at university can be easy if students work hard and serious, attend their sessions, and use the materials provided by teachers appropriately. Likewise, learning at university can be also difficult when it affected by some external factors as the charged timetable, the nature of examinations, and the unfamiliarity with conducting research.

Item 03. The Existence of difficulties when learning at university

From this item, we attempted to know if there are difficulties in learning at university (yes or no). Then it aimed to count the main difficulties that face students.

Table 3.12: The Existence of Difficulties when Learning at University

Option	Number	%
Yes	19	76%
No	6	24%
Total	25	100%
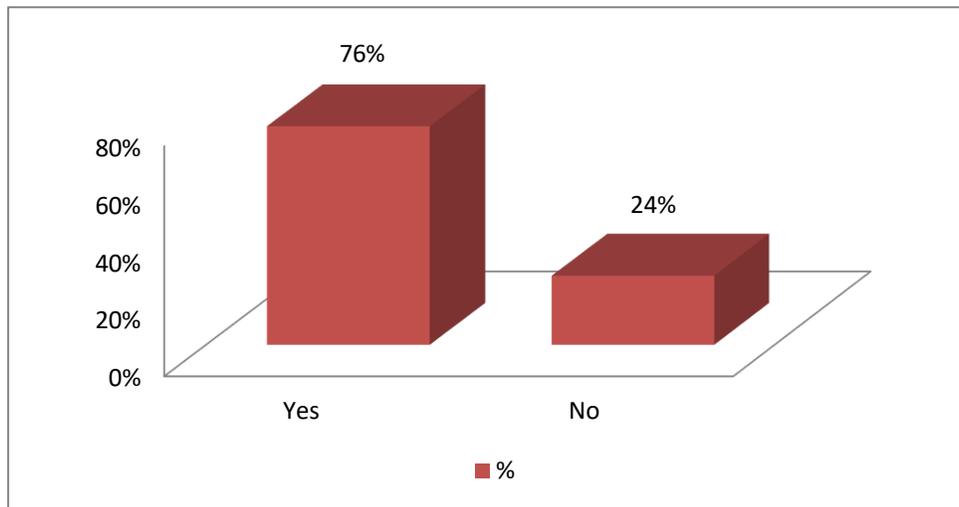
Graph 3.3: The Existence of Difficulties when Learning at University

The table above revealed that the majority of respondents find difficulties when learning at university. A percentage of (76%) faced difficulties when learning at university while, (24%) claimed that they did not face any difficulties. Since the majority affirmed that they found difficulties when learning at university, this means that learning at university is not a very easy task that requires many efforts.

Respondents' Justifications if they choose "yes"

While justifying the choice of "yes" for this question, the respondents listed a wide range of difficulties they have faced when learning at university. On the top of that, six (6) respondents of the total number (25) dictated that time conditions as time management and organization, they added, even timetables are obstacles in learning at university. Besides, three (3) others reflected the difficulties they have faced to the nature of assessments, evaluations, and examinations as one of them noted "they do not test us in the same way they taught us". To clarify, the main difficulties our respondents faced are time and the nature of evaluation.

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In the same path, two (2) respondents asserted that the only difficulty in learning at university is the incomprehensible LMD system as whole because it makes them study for scoring marks and avoid credit; for example, one of them said "I have trouble with understanding of the LMD system and all credit things". Equally, two (2) others affirmed that teachers' attitudes, mentalities, and supports are the main elements that make learning at university difficult. One of them added that teachers focus only on the theoretical part of the language; they consider practicing English language as a kind of teachers' motivation that helps them to be active and achieve well. Hence, the whole LMD system and teachers attitudes can be considered as factors that make learning at university difficult.

In the same path, the received information and memorization can be seen as obstacles when learning at university as one of the respondents highlighted "I have troubles with memorization and at university the more you memorize, the more you score. He added, in assignments, teachers do not accept any own information out of the one they provided. Furthermore, the rest four (4) respondents stressed that learning ate university can be difficult because of certain things such as lack of sources, taking notes, reading, and transportation.

From what is mentioned above, the majority of respondents acknowledged that they have faced difficulties when learning at university and from their justification, we extracted that EFL students at the University of Biskra face may challenges. However, the obstacles they face are not very complex they just need some changes starting from the system to the way of assessments.

Item 04. Respondents' choice of learning EFL in master degree

This item attempted to identify respondents' main reason for their application for master degree and to check if it is (An own choice, parents' choice, or someone's advice).

Table 3.13: Respondents' Choice of Learning EFL in Master Degree

Option	Number	%
Your own choice	24	96%
Your parents' choice	1	4%
Someone' advice	0	0%
Total	25	100%
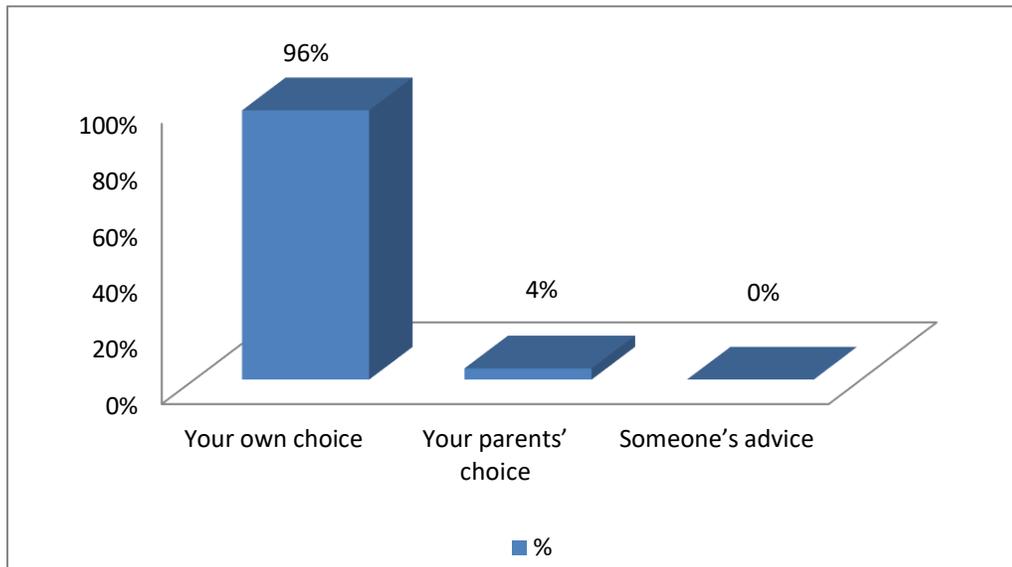
Graph 3.4: Respondents' Choice of Learning EFL in Master Degree

As it is clearly observed, 24 respondents that is about (96%) applied for master degree as a their own choice, while only one respondent whose application was her/his parents' choice, and none of them applied for master level as someone's advice. Hence, the majority of Master's applications in Division of English at the University of Biskra were personal choices of student. This proves the high demands of learning English at master level.

Respondents' justifications

As a sub-question, we asked respondents who have been selected "your own choice" to justify their answers.

Table 3.14: Reasons for Master Degree Application

Option	Number	%
To raise your educational level	10	40%
To get more job opportunities	11	44%
To conduct and academic research and develop your research skills	2	8%
Others	2	8%
Total	25	100%
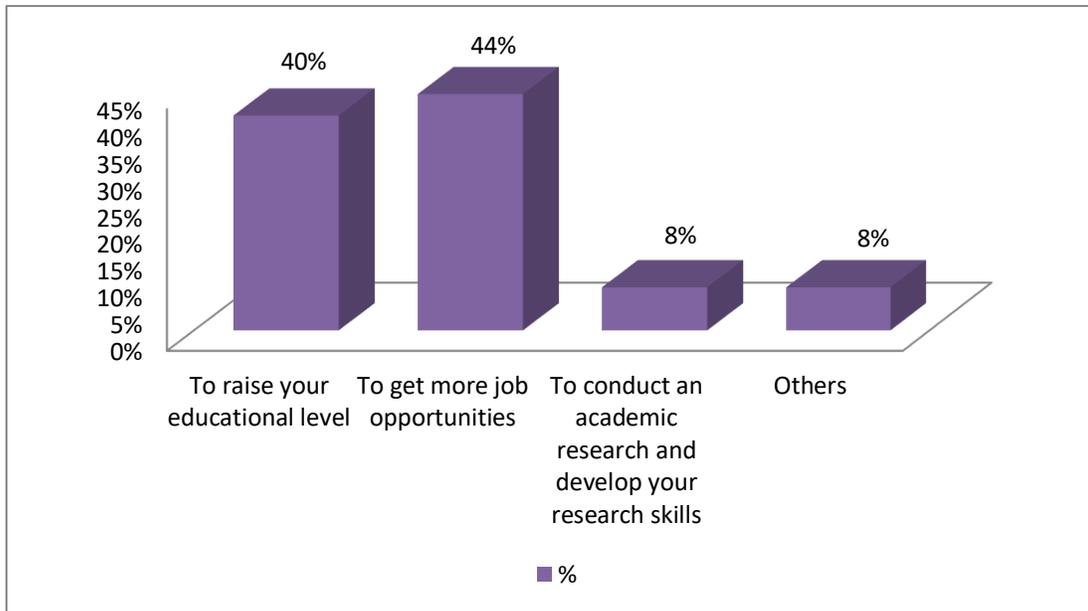
Graph 3.5: Reasons for Master Degree Application

Respondents' Justifications of "Your own choice"

Since the respondents who answered with "your own choice" were asked to give reasons for the application in master degree. The above table illustrated that the majority (44%) applied for master degree to get more job opportunities, while (40%) noted that their application for master degree was to raise their educational level. Whereas, a percentage of (8%) claimed that conducting research and develop research skills are their main reasons and the rest (8%) highlighted that there are other reasons out of the given ones, they mentioned that they need it in their current job and they are interested in the knowledge they will learn.

Consequently, the majority of Master students have applied for master degree for self-interests like raising their opportunity to get jobs or to work in domains that need English language.

Item 05. Respondents' evaluation of learning at master level

This item sought to ask students to compare learning at master level to license level (The same as it was in license level, easier than it was in license level or more difficult than it was in license level). Then we requested them to justify their answers.

Table 3.15: Respondents' Evaluation of Learning at Master Level

Option	Number	%
The same as it was in license level	7	28%
Easier than it was in license level	2	8%
More difficult than it was in license level	16	64%
Total	25	100%
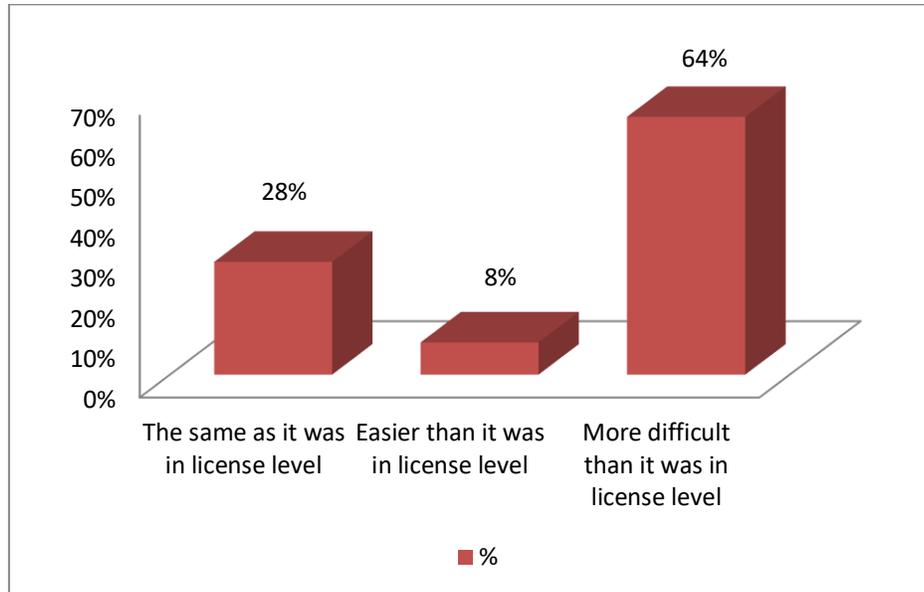
Graph 3.6: Respondents' Evaluation of Learning at Master Level

As it is shown on the table, the majority of respondents (64%) asserted that learning in master level is more difficult than it was in license while (28%) found that learning at both levels is the same. However, only (8%) who claimed that learning at master level is easier than as it was at license level. Hence, we can deduce that learning English at master level is more difficult than learning at license level.

Respondents' Justification of Their Answers

In this question, all respondents were asked to justify their answers and this provided various and valuable justifications. To start with, those who have noted that there is no difference between learning at license and master levels, they highlighted that both levels (master and license) are based on memorization except for some details that have been added. Additionally, they claimed that there are some changes in the modules (subjects), but it does

not mean that they are difficult. Thus, we can say that learning at both levels is the same. In reverse way, for the minority who has indicated that learning at master level is easier than it was in license level revealed this easiness to the nature of modules (subjects) they learn. Besides, one of them added that learning at master level is more enjoyable that as it was in license level; especially, the modules and the lectures.

Contrariwise, the majority who has agreed that learning at master level is more difficult stated a number of reasons. As they have mentioned in question three (3), the most common justification that respondents stressed was time and all what relates to time, lack of thinking skills and research skills. As one of the respondents stated "lack of time to study the obligatory subjects, huge amount of assessments and preparing research papers, as well as, further reading". Therefore, time shapes an obstacle that makes learning difficult because respondents agreed that it is not suitable for learning for many reasons; to mention some, charged timetables, huge amount of assignment, charged lectures no time to breathe, and the pressure is intensive. Accordingly, further efforts, hard work, complexity and resemblance of lectures were other reasons pointed by respondents.

Consequently, one can deduce that learning in master level is more difficult than as it was at license level for many reasons. These latter show that EFL master students at the University of Biskra need some changes in their timetables and some strategies to develop their cognitive skills (memorization and thinking) and research skills.

Section Two: Critical Thinking (From item 6 to item 12)

This section was designed to focus more on the variable of critical thinking. It attempted to gather information about which factors can improve students' progress in learning at master level. Furthermore, it aimed to collect master students' thoughts about cognitive skills and their importance in learning at their level. Accordingly, it sought to determine which cognitive skills students think can affect EFL learning. Moreover, this section's purpose is to know the meaning of critical thinking from EFL students' perspective, to check if they are critical thinkers, and to know the main characteristics of critical thinkers. Finally, it attempted to see when critical thinking could be a helpful skill.

Item 06. Factors that influence learning EFL in master level

This item sought to determine to what extent the aforementioned factors influence EFL master students' progress in learning by suggesting them some of the factors such as: (Personal factors, social factors, psychological factors, or cognitive factors).

Table 3.16: Factors That Influence Learning EFL in Master Level

Option	No influence		Medium influence		Great influence		No answer		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Personal factors	7	28%	14	56%	4	16%	0	0%	25	100%
Social factors	1	4%	6	24%	11	44%	7	28%	25	100%
Psychological factors	0	0%	3	12%	20	80%	2	8%	25	100%
Cognitive factors	0	0%	4	16%	9	36%	12	48%	25	100%
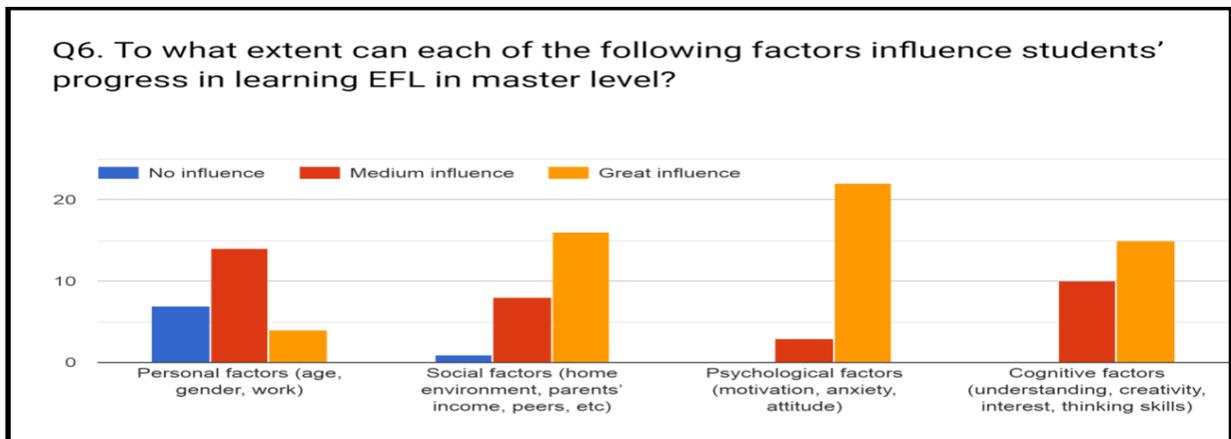
Histogram 3.1: Factors That Influence Learning EFL in Master Level

To simplify what the displayed graph and table indicated, we proposed to respondents some factors that can affect the progress of EFL learning operation in master level.Then, we asked them to classify them according to their level of influence. Initially, master classes comprise students from different ages and occupations but a percentage of (28%) stressed that (personal factors) have nothing to do with learning progress. Whereas, a high percentage of (56%) claimed that those factors can somehow influence EFL learning progress in master level while, only (16%) who pointed that (personal factors) have great contribution in EFL learning in master level. Thus the majority of EFL master students consider (personal factors) as somehow motivational factors to boost their learning progress.

Besides, since the external factors can affect learning progress, the lowest percentage (4%) considered (social factors) to have no influence in enhancing their learning; which deduced, that this minority think that the progress of EFL master learners is limited to the internal classroom factors (conditions) such as lectures, teachers, etc. On the other side, 24% pointed that a "medium influence" is the most appropriate classification of these factors (social factors), but the majority 44% of respondents highlighted that these factors as external factors have great contribution in EFL master learning process. They may mean things as revision at home; however, a considerable percentage 28% did not provide an answer. Thus, social factors have a great role in enhancing EFL master learning operation.

Furthermore, when the respondents were asked to classify (psychological factors), none of them noted that they are not crucial. Yet, (12%) affirmed that they have a minor role for boosting the level of progress in master level while, the highest percentage (80%) confirmed their great importance. This can be proved by their charged programs, lectures, etc… which require much of patience and motivation, and less of stress whereas (2%) had no answers. Hence, the biggest number of respondents agreed that (psychological factors) have great influence on EFL learning in master level.

In the same path, the last given element was the (cognitive factors). As in the previous element (psychological factors) no one have classified (cognitive factors) as needless factors while (16%) classified them as secondary factors which are somehow influencing whereas a quit percentage (38%) considered these factors as very important factors for enhancing EFL learning in master level. Nevertheless, what attracted the researcher is that the majority of the

respondents 48% did not provide an answer, which may demonstrate their unfamiliarity with these factors.

The overall results deduced that diverse classification of the aforementioned factors detected that (personal factors) are of medium influence; social factors as well as psychological factors have great influence on EFL learning in master level. Yet, (cognitive factors) were not classified by the majority of respondents, which show their unfamiliarity with these factors as the mental factors they need for successful learning in master lever. Therefore, teachers should raise their students' awareness about these factors and about their importance for successful learning at an advanced level.

Item 07. The importance of cognitive skills

This item aimed to gather students' thoughts towards cognitive skills as an important element in EFL learning (yes or no). In addition, we asked them to justify their answers.

Table 3.17: The Importance of Cognitive Skills

Option	Number	%
Yes	24	96%
No	1	4 %
Total	25	100%
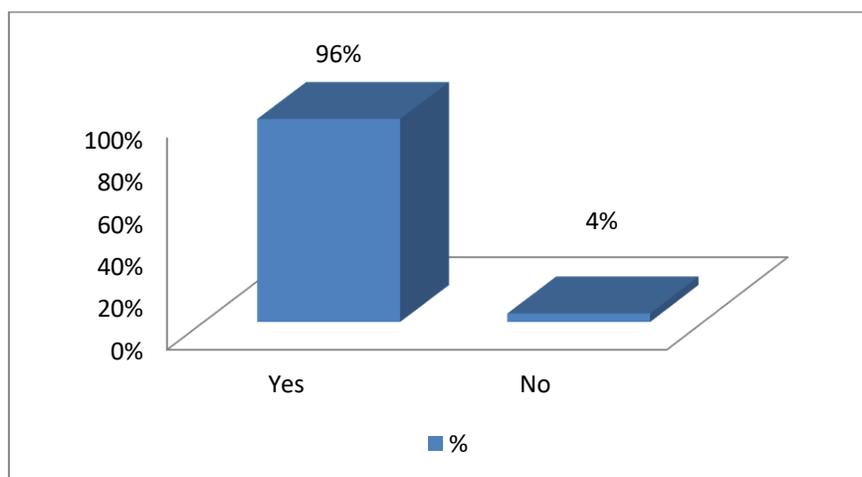
Graph 3.7: The Importance of Cognitive Skills

Unlike what respondents have answered in the previous question about cognitive factors, it is clearly observed above that (96%) of respondents thinks that cognitive skills have a positive impact in EFL learning. Therefore, they think that cognitive skills have a vital role in successful EFL learning because it comprises skills such as critical thinking, which is highly required in EFL learning especially, in master level. However, only one respondent (4%) believes that cognitive skills are not crucial for EFL learning. Thus, since the majority of respondents agreed that cognitive skills are important in EFL learning, they should develop them due to their effectiveness.

Respondents Justifications of their Answers

When we asked respondents whether about the cognitive skills are crucial recommended elements in EFL learning or not, all of them but one has insisted on their great importance for this process. Then, to gather extra information about this question we requested them to justify their answers. To sum up respondents' justifications, the only exception is the one who affirmed that cognitive skills are not of great importance and s/he did not provide any justification. However, those who answered with "yes" to the great importance of cognitive skills in EFL learning offered several justifications. To mention some, nearly the overall answers detected that cognitive skills are crucial in EFL learning because they facilitate learning and help in solving problems. Thus, we can understand that our respondents are aware that those skills raise their chance to make better understanding, deduction, reasoning as well as grasping the knowledge easily.

In the same path, one of the respondents claimed, "memorization is something you need while learning a foreign language" so, we can infer that cognitive skills are very helpful for EFL learning process because they enhance and comprise memorization, which is highly demanded for successful EFL learning. Moreover, other respondents stressed that learning EFL is an art as well as a discipline and in both cases cognitive skills are highly required. They added, all what an EFL student needs in learning EFL successfully are the mental capacities; which means, learning EFL requires understanding, reasoning, comprehension, interest and critical thinking. Additionally, a couple of students mentioned that critical thinking as a cognitive skill can be considered as the core of achieving better results when learning EFL. Hence, we can estimate that these two respondents unconsciously proved that

active learners are the most successful learners and consequently active learners are critical thinkers.

To conclude, we can extract that the majority of EFL master students are familiar with cognitive skills. Besides, they believe in the positive effect of cognitive skills. Furthermore, they are aware of the vital role of each one of the skills they comprises. Finally, they consider critical thinking to be the core of EFL success.

Item 08. Cognitive Skills that have a Great Impact on Learning EFL

After the confirmation that cognitive skills are of great importance in learning EFL, we designed this item to check which of the cognitive skills students think they can enhance learning EFL(Understanding, interest, creativity, or critical thinking).

Table 3.18: Cognitive Skills That Have a Great Impact on Learning EFL

Option	Number	%
Understanding	6	24%
Interest	4	16%
Creativity	5	20%
Critical thinking	1	4%
Critical thinking and understanding	9	36%
Total	25	100%
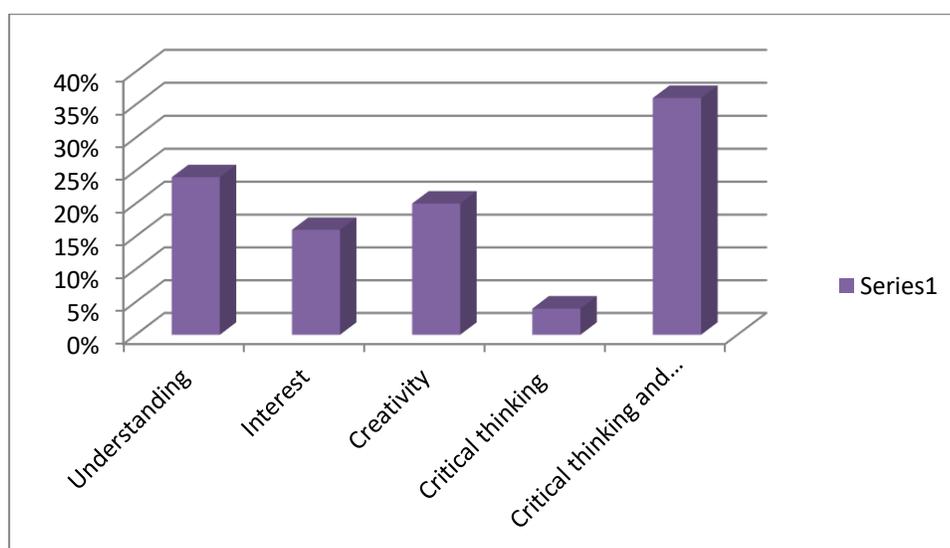
Graph 3.8: Cognitive Skills that have a Great Impact on Learning EFL

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Statistically speaking, as an individual selection of the most important cognitive skills, understanding has been selected by (24%) of the respondents while interest got a percentage of (16%). Whereas, a percentage of (20%) refers to those who have selected creativity, yet only one respondent who represents (4%) who stressed that critical thinking is the most important cognitive skills for learning EFL; this may reveal respondents' unawareness about the vital role of critical thinking in learning EFL. However, the majority of respondents (36%) have agreed that a combination of understanding and critical thinking can be considered as the most important cognitive skills for learning EFL. Those respondents aimed to say that if a student has effective critical thinking skills and good understanding, s/he, consequently, will achieve better.

Consequently, understanding and critical thinking got the major number of selection. Thus, we can deduce that our respondents are aware of the importance of critical thinking in learning EFL.

Item 09. Meaning of critical thinking according to EFL students

This item sought to investigate EFL students' views on the meaning of critical thinking by giving them some definitions such as: (Critical thinking is asking pertinent questions, critical thinking is being able to define a set of criteria for analyzing ideas, critical thinking is being able to examine beliefs, assumptions, and opinions, critical thinking is assessing judgments and arguments, critical thinking is finding solutions to some problems, or all of them).

Table 3.18: Meaning of Critical Thinking According to EFL Students

Option	Number	%
Asking pertinent questions	0	0%
Being able to define a set of criteria for analyzing ideas	0	0%
Being able to examine beliefs, assumptions, and opinions	2	8%
Assessing judgments and arguments	0	0%
Finding solution to some problems	0	0%
All of them	23	92%
Total	25	100%

To summarize the yielded data, none of the respondents (0%) look at critical thinking as a matter of asking questions (curiosity), an ability of analyzing data, making judgments, argumentations or to find solutions. Thus, those respondents proved and believed that critical thinking does not depend on one of the previously mentioned options individually but it is a set of skills. Whereas, a couple of respondents that represent (8%) pointed that critical thinking refers to the ability of examining beliefs, assumptions, and opinions ; which means their incorrect understanding of the real meaning of this concept.

However, the highest percentage of (92%) represents those who have agreed that critical thinking is a combination of all of the aforementioned options together. Thus; we can deduce that those respondents are well-accustomed with the real meaning of critical thinking as a concept.

Thereupon, the majority of respondents have agreed that critical thinking is set of a skill that comprises curiosity, the ability of analyzing data, making judgments, and problem-solving. This is positive in addition to respondents answers about critical important role on EFL learning (see item 8), thus the respondents of our sample are aware of the real meaning of critical thinking as a concept and its vital role in learning as one of the important cognitive skills.

Item10. Respondents' views about themselves as critical thinkers

This item targeted EFL master students to collect their beliefs if they consider themselves as critical thinkers. They were supposed to answer by (Yes, no, or I do not know).

Table 3.19: Respondents' Views about Themselves as Critical Thinkers

Option	Number	%
Yes	8	32%
No	4	16%
I do not know	13	52%
Total	25	100%
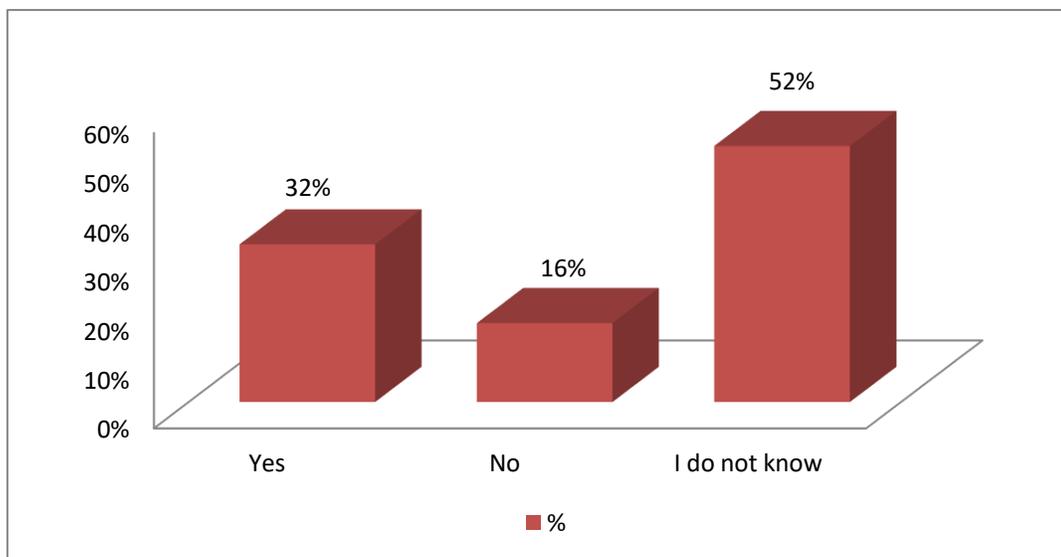
Graph 3.9: Respondents' Views about Themselves as Critical Thinkers

From what has been mentioned above, a considerable percentage (52%) refers to those who have selected "I do not know" which means; either their level of self-confidence is weak, or they lack critical thinking skills. Another possibility which can explain those respondents answer is that they may not apprised with critical thinking as a concept or set of skills. Nevertheless, a percentage of (32%) refers to those who asserted that they are critical thinkers. Yet, (16%) provided negative answers about themselves as critical thinker. This may be due to their lack of practice.

As a result, Biskra University EFL learners are not familiar with critical thinking because an acceptable number of students consider themselves as critical thinkers while the majority has a doubt about themselves. Hence, a big number of EFL students need to learn the correct idea of critical thinking as a concept, process, and skills for successful learning and practice learner-centered activities that give them the chance to decide whether they are critical thinkers or not.

Item11. Characteristics of critical thinkers

Through this item, we aimed to explore respondents' characteristics of critical thinkers by providing a series of critical thinking characteristics such as: (Those who have a sense of

curiosity, those whose minds are full of questions, and those who look for evidence to support assumptions and beliefs, or all of them).

Table 3.20: Characteristics of Critical Thinkers

Option	Number	%
Those who have a sense of curiosity	0	0%
Those whose minds are full of questions	2	8%
Those who look for evidence to support assumptions and beliefs	4	16%
All of them	19	72%
Total	25	100%

As it is shown in the above table, the highest percentage (72%) agreed that critical thinkers are those who are characterized by curiosity, asking questions, and skepticism (do not accept any information but they always look for evidences). However, (16%) consider critical thinkers as those who look for evidence to support assumptions and beliefs. While a percentage of (8%) refers to those who stressed that having minds full of questions makes a person a critical thinker whereas, none of the respondents has selected curiosity.

Consequently, the above results confirmed those critical thinkers are characterized by their curiosity, their minds which are full of questions, and their sake to look for evidences.

Item12. Situations where critical thinking is needed

This item aimed to collect respondents' opinions about the position that can critical thinking be more effective in making decision (In your daily life, when learning, when sitting for examinations, when conduction research, or all of them).

Table 3.21: Situations Where Critical Thinking is needed

Option	Number	%
In your daily life	2	8%
When learning	1	4%
When sitting for examinations	0	0%
When conducting research	2	8%
All of them	11	44%
Total	25	100%

As it is illustrated in the above table, (44%) have proved that thinking critically can be helpful in making decisions in all the situations that have been mentioned above (daily life, when learning, when sitting for examinations, and when conducting research); which means that they are aware of the vital role critical thinking in all daily and school life. nevertheless, (36%) did not provide any answers either because they are not aware of the effectiveness of thinking critically, or they think that it helps in other things that we did not mention.

However, only (8%) who pointed that thinking critically helps in making decision only in daily life; in contrast, an equal percentage (4%) represented those who have selected that thinking critically can be helpful when learning in general. Besides, another (8%) noted that only conducting research which requires thinking critically; this minority is showed their awareness of the role of critical thinking in conduction research.

Consequently, the majority of respondents asserted that thinking critically does not limited only in classroom as in learning, sitting for examinations, and conducting research but it exceeds to daily life.

Section Three: The Relationship between Critical Thinking, Research, and Research Papers Quality (From item 13 to item 18)

Through this section, we spotlight on the relationship between critical thinking and research papers. First of all, it aimed to collect some strategies which can improve critical thinking skills. In addition, it attempted to look at teachers' frequent use of students mental abilities. Moreover, it estimated to shed light on the existence of relationship between critical thinking and research papers. Furthermore, it sought to check if research papers can develop research skills. Finally, it purposed to collect which skills can be developed through research papers.

Item 13. Strategies that can improve critical thinking skills

In this item, we have suggested a list of strategies that can improve EFL students' critical thinking skills (in terms of practice) then; we asked them to identify which one(s) they

think is (are) the most effective. Among the strategies we have suggested (Classroom tasks, reading, communicative activities, questioning, research papers, or all of them).

Table 3.22: Strategies That Can Improve Critical Thinking Skills

Option	Number	%
Classroom tasks and projects	0	0%
Reading	2	8%
Communicative activities	0	0%
Questioning	0	0%
Research papers	0	0%
All of them	2	8%
No answer	21	84%
Total	25	100%

As the above table reveals, on one hand, a noticeable percentage (84%) respondents who did not select any of the above-mentioned strategies; which reflects that they did not experience them before. On the other hand, an equal percentage of (8%) outcomes those who have chosen reading and the other (8%) have agreed that all the previously-mentioned strategies an equal effectiveness in improving EFL learners critical thinking.

Thus, the majority of respondents' answers agreed that none of the previously mentioned strategies could improve their critical thinking skills. These latter elucidated that they did not practice those strategies before which makes them unable to judge whether they can be effective or not in developing their critical thinking.

Item 14. The frequency of teachers' focus on mental activities

Through this question we aimed to check which of the following mental activities teachers focus more on: (memorizing facts, analyzing ideas, synthesizing ideas, making judgments, and applying theories) by rating them from (very little to very much).

Table 3.23: The Frequency of Teachers' Focus on Mental Activities

Option	Very little		Little		Very much		No answer		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Memorizing facts, ideas	5	20%	8	32%	12	48%	**0**	**0%**	**25**	**100%**
Analyzing the basic elements of an idea	5	20%	10	40%	4	16%	**6**	**24%**	**25**	**100%**
Synthesizing and organizing ideas	6	24%	7	28%	0	0%	**12**	**48%**	**25**	**100%**
Making judgments about the value of information	0	0%	4	16%	9	36%	**12**	**48%**	**25**	**100%**
Applying theories to ractical problems	3	12%	7	28%	3	12%	**12**	**48%**	**25**	**100%**
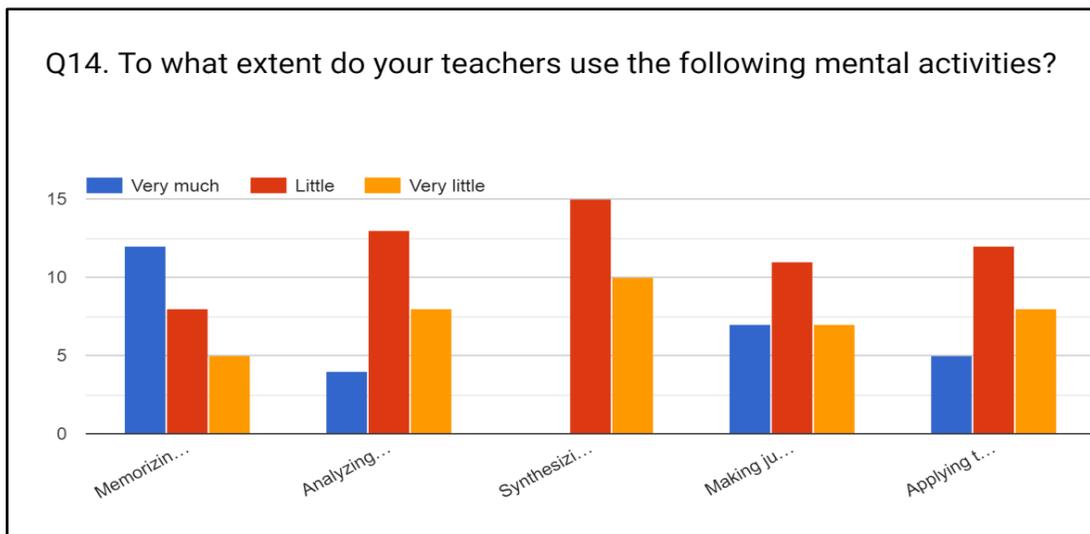
Histogram 3.2: The Frequency of Teachers' Focus of Mental Activities

To simplify what is illustrated on the above table, a considerable percentage (48%) have selected "very much" to describe their teachers' use of memorization that may be

because their all coursework and examinations are based on memorization. However, (32%) claimed that teachers do not always use their students memorization yet, (20%) pointed that teachers rarely "very little" use our memorization while learning process.

In the same path, when respondents asked about to what extent teachers use the mental activity (analyzing), the majority (40%) noted that they use it but not all the time "little". However, (24%) did not answer this sub-question which can confirm that this mental activity is ignored in teaching-learning EFL whereas (20%) answered with very little and (16%) with very much.

In addition, when we asked respondents to rate the frequency of their teachers of synthesizing as a mental activity they confirmed that it is also ignored in their coursework because the majority (48%) did not answer, while (28%) answered with "little", (24%) answered with "very little", and no one selected "very much".

Equally, (48%) of respondents did not select any of the suggested frequencies when they were asked about making judgment to the received information. Thisconfirmsagainteachers' ignorance of the previous mental activities while preparing lectures but they base them only on memorization. In contrast, (36%) answered with "very much" and (16%) selected "little" yet, no one answered with "very little". Hence, the diversity of respondents answer can deduce that teachers sometimes ask students to make judgment about the given information.

Similarly, applying theories or concepts to solve problems got a percentage of (48%) for those who did not answer, (28%) to present those who have selected "little", while an equal percentage of (12%) outcomes those who have chosen "very little and "very much".

To sum up with the above results, we can observe that the percentages were nearly similar but they differ in "memorization". We can deduce that EFL teachers based their coursework and examinations on memorization and neglect all the other mental capacities which caused the students impassivity and weak level of critical thinking. Hence changing the ways of teaching-learning is highly recommended and should be based on what makes students creative and productive.

Item 15. The existence of relationship between critical thinking and research

This item designed for the sake to discover EFL students' opinions about the existence of relationship between critical thinking and research (yes or no). Then we asked them to justify their answers

Table 3.24: The Existence of Relationship between Critical Thinking and Research

Option	Number	%
Yes	25	100%
No	0	0%
Total	25	100%
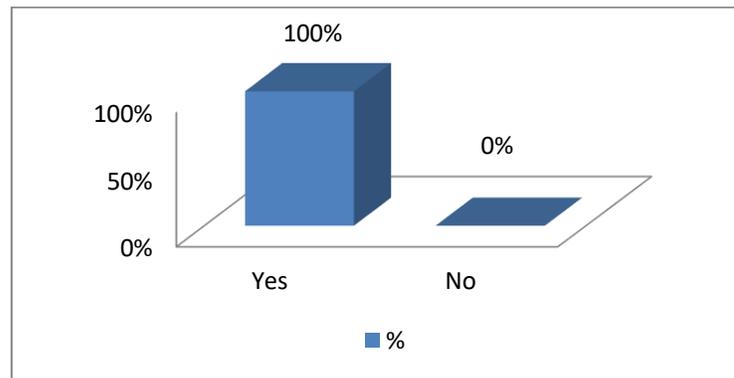
Graph 3.10: The Existence of Relationship between Critical Thinking and Research

As it is clearly shown on the above table, all the respondents (100%) are totally agree that there is a relationship between critical thinking and research. Thus, the existence of relationship between critical thinking and research has been validated.

Respondents' Justifications of their Answers

This sub-question objective is to verify the nature of the existing relationship between critical thinking and research (Critical thinking affects research quality, research develop critical thinking skills, or they are interrelated).

Table 3.25: Kind of Relationship That Exists between Critical Thinking and Research

Option	Number	%
Critical thinking affects research quality	6	24%
Research develops critical thinking	3	12%
They are interrelated	16	64%
Total	25	100%
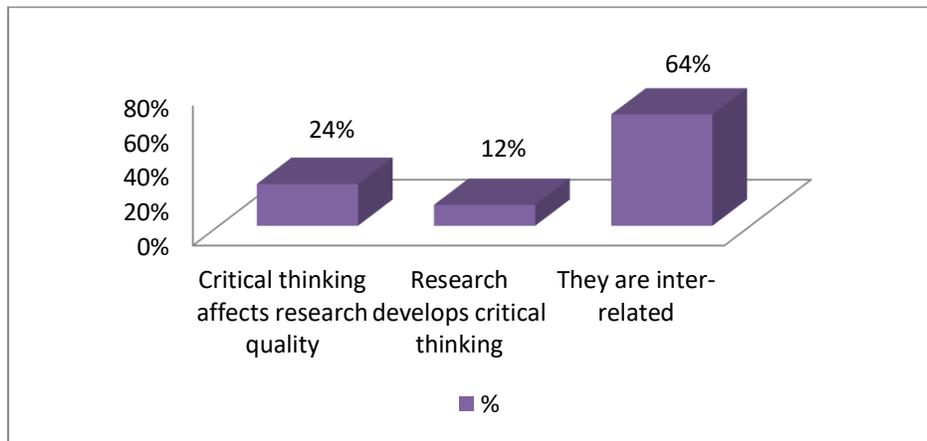
Graph 3.11: Kind of Relationship That Exists between Critical Thinking and Research

The above table reveals that the majority of respondents (64%) agreed with teachers upon the on the idea that critical thinking and research are interrelated (see item 13). This confirmed that critical thinking enhances research quality and vice versa. However, a percentage of (24%) referred for those who have selected that critical thinking affects research quality. Those respondents insured that research starts with a question in mind. Yet, only (12%) who pointed that research develops critical thinking; in other words, they highlighted that critical thinking can be developed through training by conducting research.

Accordingly, the majority of respondents as well as teachers in the previous interview stressed that critical thinking and research have an exchangeable kind of relationship in between; each one is crucial for the other and each one enhances the other.

Item 16. The levels of research in which critical thinking has a great impact

This item aimed to see which stage of the research process needs more critical thinking (At the beginning of the research process, during the research process, at the end of the research process, or at the end of research).

Table 3.26: The Levels of Research in Which Critical Thinking Has a Great Impact

Option	Number	%
At the beginning of research Process	0	0%
During research process	3	12%
At the end of research process	1	4%
During and at the end of research Process	7	28%
All of them	14	58%
Total	25	100%

The above table reveals that the highest percentage (58%) of respondents agreed upon the idea that critical thinking is crucial in all research stages. This implies students' awareness of the effective role of critical thinking in conducting research. Besides, (28%) highlighted that critical thinking is of great impact in both stages of research during and at the end of its process; they require more analyzing and drawing effective conclusions. Whereas, (12%) affirmed that critical thinking is more important only during the research process; those respondents believe that critical thinking refers only to analyzing information. Contrariwise, a minority of (4%) who mentioned that critical thinking is crucial much more at the end of research process. Yet, none of the respondents supported the idea that critical thinking has a great impact only at the beginning of research process.

Hence, critical thinking is of great impact in every research stage from the selection of the topic until the conclusion; besides, respondents answers proved and supported the idea that critical thinking enhances research quality which implies it vital role in learning EFL in master level.

Item 17. The role of research papers in developing research skills

This item sought to gather respondents' opinions about research papers as a strategy for developing research skills (yes or no). Additionally, we requested them to justify their answers.

Table 3.27: The Role of Research Papers in Developing Research Skills

Option	Number	%
Yes	24	96%
No	1	4%
Total	25	100%
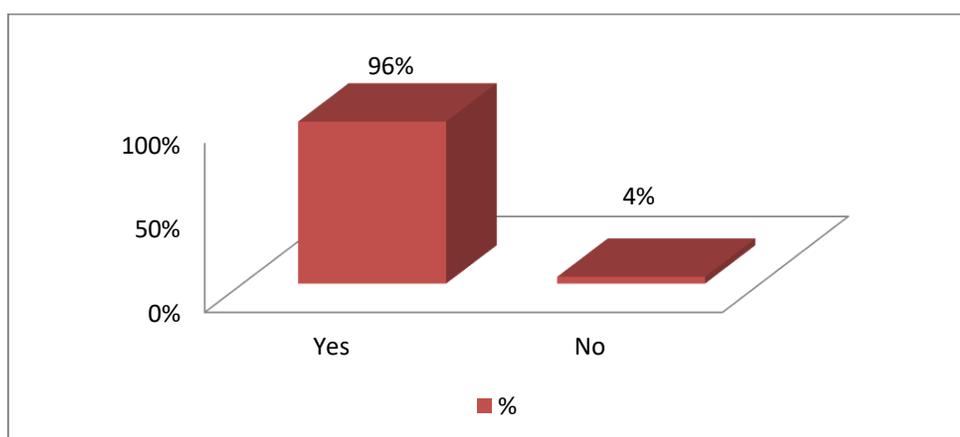
Graph 3.12: The Role of Research Papers in Developing Research Skills

Statistically speaking, a great deal of respondents (96%) supported the fact that research papers can be an effective technique to develop EFL students' research skills, which implies their importance in learning EFL. However, only (4%) who believe that research papers are not enough beneficial as a technique to develop research skills. Consequently, research papers as a technique is of great importance for developing EFL students' research skills so, their application will have positive results.

Respondents Justifications of their Answers

To gather more data about how can research papers as strategy be effective to develop EFL students' research skills, we asked our respondents to justify their answers. Initially, the

respondent who answered with "no" did not provide any reason. However, those who answered with "yes" have provided interesting justification that proved the benefits of adopting the strategy of research papers.

The majority of respondents' justifications highlighted that conducting research papers gives them the opportunity to become skillful researchers through getting more experience and training in reading, analyzing information, searching for sources, assessing information, etc. They added that the more they practice the more they succeed. Thus, students need assigning research papers because they train them to get research experience, help them to be familiar with research process as well as facilitate their final project conduction.

Furthermore, the other justifications showed that mastering methodology needs more practice; for that reason, assigning research papers raise their familiarity with research methodology as a whole and the appropriate way of conducting a dissertation (layout and content) in terms of collecting data, analyzing data, citing sources, quoting, tips of typing in computer, spacing between lines. Hence, we can deduce that conducting research requires many details which they should be taught through assigning research papers because this helps them to be more systematic in managing their final dissertation.

Moreover, writing a research paper helps in improving students' academic writing because the more students write the more they get teachers feedback which is very crucial at this advanced level because academic writing is the basis of master level and it is recommended in writing a dissertation. Therefore, research papers enhance EFL students' academic writing skills.

Eventually, some respondents pointed that practicing research papers develop their critical thinking which they consider as the core of good research quality. They added that assigning research papers gives them the chance to present their ideas/ thoughts, and to train their minds to think critically because writing a research paper requires critical thinking skills of analyzing, synthesizing, reasoning, and arguing.

Consequently, respondents' justifications imply their lack of practice; on the other hand, they proved the vital role of research papers in developing their research skills because

they give them the chance to get research experience, helps them to earn more about methodology, ameliorate their level in academic writing, and develop their level of critical thinking by giving them the opportunity to speak their minds. Applying research papers strategy is very important due to their positivity in learning EFL especially in master level.

Item 18. Skills that research papers can develop

This item suggested some skills and aimed to collect which skills can writing research papers develop that are (Interpersonal skills, personal skills, critical reading and reading strategies, academic research writing skills, computer and internet research skills, and cognitive skills).

Table 3.28: Skills that Research Papers can Develop

Option	Number	%
Interpersonal skills	0	0%
Personal skills	0	0%
Critical thinking and reading strategies	0	0%
Academic research writing skills	0	0%
Computer and internet research skills	0	0%
Cognitive skills	0	0 %
All of them	21	84%
No answer	4	16%
Total	25	100%

To sum up the above yielded data, a noticeable percentage (84%) confirmed the above answers and justifications by approving that writing research papers is beneficial for EFL because it helps them from many sides (developing their interpersonal, personal, academic writing, computing skills, and critical reading strategies). To be precise, the majority of respondents claimed that research papers are good strategy to develop all the previously-mentioned skills together. However, (16%) did not answer this question, while none of the respondents (0%) has selected one of the above options individually.

Consequently, writing research papers has an overall benefits because they develop all the skills that should be present in EFL learners by making them practice, engage, and being active as well as training them to be researchers.

3.7.6 Discussion and Interpretation of the Findings

The analysis of students' findings provides different information and valuable responses that supported our hypothesis. Initially, from students' responses we deduced that learning EFL at university is somehow difficult; precisely, in master level due to the challenges students face. To mention some, the charged timetables are considered as the obstacle which enables students to make balance between studying in classroom and revising at home. Also, the resemblance of the subjects' content makes them difficult to be understood, and the complexity of the whole LMD system that requires much efforts and research.

In the same vein, the respondents urged teachers and syllabus designers to change the way of designing lectures, tasks, and evaluations because most of students complained about this matter that makes learning depends only on memorization. According to the respondents, the more they memorize the more they will score. This latter, leads to students' impassivity because they just copy and paste the received information, which limits their thinking, creativity, productivity, and their opportunity to practice or to express their thoughts towards given information.

In the same path, students' responses highlighted that cognitive skills are highly required for successful EFL learning because they comprise memorization and critical thinking. Therefore, they claimed that they need to develop those skills by practicing them inside the classroom due to the fact that practicing treats their minds, gives them the opportunity to learn autonomously and conduct research. They also mentioned that the more they practice what they have learned, the more their critical thinking and research skills will be developed.

Students have a good idea about critical thinking. To define it, students pointed that it comprises curiosity, the ability of analyzing ideas, the ability to examine beliefs, and the ability to solve problems. Nevertheless, they did not give it consideration as the most required cognitive skill for better success in learning EFL because this latter process is not easy and

requires more than one cognitive skill. However, they stressed that it has a vital role in all life domains including: learning, sitting for examinations, conducting research, etc. Yet, the majority of them do not know whether they are critical thinkers even they know all characteristics of critical thinkers.

More importantly, when we asked respondents to select the most effective strategies such as: (research papers, reading, and communicative activities) that can develop critical thinking, most of them did not answered which may resulted from their unfamiliarity with them or their lack of practice of these strategies that enables them to judge whether they are effective of not. Therefore, teachers should develop their students' critical thinking by designing learner-centered tasks and/or activities for more practice in classroom.

In addition, respondents agreed upon the exchangeable relationship between critical thinking and research; they insisted on the role of critical thinking in all research stages from the selection of the topic until the end of the research process. Equally, they highlighted that assigning research papers enhances their research skills because it develops their academic writing, ameliorates their computing skills, and makes them learn about methodology. Also, they asserted that assigning research papers contributes in making them active students through giving them the chance to present their thoughts and ideas as well as it develops their critical thinking and motivates them to achieve well.

Consequently, learning EFL at the University of Biskra needs some modifications starting from the system to the way of assigning students, which demotivates them in learning and prevents from being active. Also, teachers and syllabus designers should base the lectures and examinations to what makes students practice and express their thoughts not only on memorization. In order to develop their students' critical thinking and research skills, teachers should raise their students' awareness about critical thinking and about its vital role in learning process in addition to spreading its culture among students. From what we have suggested as strategies to develop critical thinking, students did not provide any answer may be because they did not experience them before; this makes them unable to judge or evaluate the aforementioned strategies to be effective or not.

3.8 Summary of the Results

Since the main aim of this study is to investigate the role of research papers as a technique to develop EFL students critical thinking; in addition to, see whether research papers deserved to be adopted as an assigning technique among EFL students. Thus, to have credible research results the researcher dealt with a couple of tools to gather feedback that feed the study which are: an interview administrated for EFL teachers and a questionnaire administrated to first year master EFL students.

In addition, through this study we aimed to develop EFL students' critical thinking through suggesting the technique of assigning research papers and aimed also to prepare students as skillful researchers. Besides, the study attempted to know the meaning of critical thinking, its position, and its role in teaching-learning EFL from EFL teachers and students perspectives. Moreover, it provided additional strategies suggested by teachers that can develop students' level of critical thinking.

On one hand, the interview findings showed that teachers insisted on the great impact of cognitive skills in teaching-learning EFL operation. Also, they gave priority to critical thinking and they described it as one of the pillars for successful EFL learning; additionally, they proved that EFL students have a weak level of critical thinking which they refer it to the students' impassivity and lack of practice; thus they raised the awareness of critical thinking role and they pointed that students need to develop this skill that helps them to achieve better.

In the same vein, the conducted interview showed that research papers are one of the most effective techniques that should be adopted; precisely, to develop EFL students critical thinking because it allows them to practice more. Due to researchers' positive attitudes towards the role of research papers as a technique to develop EFL learners' critical thinking, the interview results proved that adopting this technique is deserved to be applied in our division of English.

Moreover, the obtained results from the interview presented that critical thinking and research have an exchangeable relationship that makes critical thinking enhances the quality of research and vice versa. Besides, the results proved that research papers and good level of

critical thinking contribute in facilitating students conducting of their dissertation. This letter can be considered as a positive point for the validity of our hypothesis.

On the other hand, students' questionnaire results agreed with teachers' interview results in some points; however, students revealed their impassivity to the nature of their lectures and examinations that are based on memorization. This latter, does not give them the opportunity to express their ideas and thoughts as well as limits their chance to practice and to train their minds.

Likewise, the obtained results from this questionnaire proved students unfamiliarity with critical thinking not as a concept but as a set on skills that contribute on their learning process. This may result to their lack of practice and critical thinking culture which draw a wrong image of critical thinking among them whereas students agreed on critical thinking usefulness in different domain as in daily life and education as whole.

Furthermore, the obtained data highlighted students' agreement upon the idea of the effectiveness of research papers as a technique; in addition, they pointed that their effects do not restrict only on developing critical thinking but they exceed to give students the chance to practice, enhance their academic writing, raise their familiarity with methodology and develop their research skills. Moreover, the gathered results showed that students agreed that assigning research papers open the door for them to develop all their cognitive skills and avoiding the traditional way of teaching which based only on memorization.

All in all, both sides feedback was beneficial, effective, and positive which contribute o the validity of research hypothesis. More importantly, it showed that the suggested assigning technique can be a useful adopted strategy for both teachers and students; thus, it helps to end students impassivity, helps students to learn by themselves, helps them to engage in the classroom, and avoid memorization as well as it contributes to prepare skillful researchers that enhances the research quality in our division. Furthermore, the obtained results raised the awareness of critical thinking role for successful EFL teaching-learning process and proved its highly recommendation in education.

3.9 Synthesis of the Findings

The obtained results from both tools lead to the progress of this synthesis. Both methods provided approximately similar results that help answering the research questions and validate the hypothesis concerning the role of research papers as a technique to develop EFL learners' critical thinking. Both teachers and students know what critical thinking is and they are aware of its importance in learning EFL; however, students could not evaluate themselves as critical thinkers or not. This may be due to the lack of practice in addition to their teachers focus on memorization.

The two methods confirmed the validity of the research hypotheses, through which EFL teachers and students at the University of Biskra provided positive attitude towards the use of research papers as assignments; according to them, it provides opportunities for students to practice more, avoid spoon-fed, and being active. Furthermore, both teachers' and students' feedback answered all research questions as well as it confirmed the hypotheses which pointed the effectiveness of critical thinking in learning EFL. Thus; it helps students to learn better and avoid impassivity by training their minds.

Equally, they confirmed the great contribution of research papers in developing EFL students' critical thinking as a crucial element for success and developing research skills. More importantly, the obtained feedback affirmed that research papers as an assigning technique deserves to be adopted; yet, teachers claimed that this latter requires some conditions as time allocation, decreasing the number of students in classroom, and shorten the teaching syllabi.

To conclude, the study results answered all the research questions and achieved all the study aims. Furthermore, all research hypotheses have been confirmed; initially, both teachers and students highlighted the great contribution of critical thinking in EFL teaching-learning operation as a pillar of success. In addition, it has been confirmed that EFL teachers and students have positive attitudes towards the adoption of research papers as assignments due to their vital role in enhancing students' research skills. Moreover, both respondents insisted on the role of research papers as a technique to develop EFL learners' critical thinking as a tool of

training students and helping them get rid of their impassivity taking into consideration the aforementioned conditions (time, number of students, etc).

Conclusion

This chapter was devoted to the field work of the study that consisted of two parts. The first part focused on the theoretical background of the research methodology of the study; namely: research approach, research design, population, sampling, and data collection methods. The second part aimed to check whether the use of research papers as a technique develops EFL learners' critical thinking from EFL teachers and students' perspectives. In addition, it dealt with detailed data analysis, interpretation, discussion of findings, and the synthesis of the results.

Limitations of the Study

In conducting any research, the researcher faces some obstacles that obstruct the research process progress. In our study, we have faced some difficulties. Initially, the lack of sources about critical thinking as well as research papers was the main obstacles that affected our research progress; precisely, in finding books and articles, because they were rare on the net and absent at the local library. Moreover, the unavailability of teachers also hampered the progress of the research data collection (in the interview). Furthermore, due to students charged timetable, some students refused to answer the questionnaire (in piloting phase) while others did not answer some questions. Besides, in the administration phase of students questionnaire the students feedback was limited because their unfamiliarity with our first variable (critical thinking). Consequently, even the study has been affected by the aforementioned limitations, the researcher has collected the feedback which it helped her to confirm the validity of her hypotheses.

General Conclusion

General Conclusion

The present study aimed to shed light on developing EFL learners' critical thinking through suggesting research papers as an assigning technique. Thus, this research attempted to answer all the research questions in addition to the hypotheses validity, which highlighted that if EFL students assign research papers their level of critical thinking will be developed.

The study comprises three chapters, the two initial chapters was devoted to the theoretical part of the study; whereas, the third chapter shed light on the study framework. Firstly, the first chapter devoted to highlight all the basics of critical thinking. To be precise, it dealt with a general of critical thinking (its meaning and history). Moreover, it presented the importance and skills; furthermore, it shed light on critical thinking position in education and in research conduction.

Secondly, the second chapter consisted of two sections that dealt with research and research papers. The initial section provided the essential elements of research; research meaning, settings, and its position in ELT. While the second section focused on research papers, it presented their definition, significance, and the challenges that face students when conducting research papers.

Thirdly, the third chapter devoted to the study framework. Initially, this chapter dealt with practical part of the study that presented a literature review about the research methodology (research approach, research design, population and sampling, and data collection methods). Then, it shifted to data analysis and interpretation in addition to the discussion and summary of the study findings.

To achieve the study aim, researcher dealt with mixed-method. To collect data the researcher based her study on two data collection methods; an interview, which has been administrated to EFL teachers, and a questionnaire, which has been administrated to EFL students. Both teachers and students were from the University of Biskra. The sample of the study included nine teachers and twenty-five students.

Accordingly, the obtained results that gathered from the interview and the questionnaire proved that teachers and students have positive attitudes towards the use of research papers as a technique to develop EFL students' critical thinking. In other words, both believe that the more students practice assigning research papers the more their critical thinking will be developed. Moreover, teachers recommended the adoption of this technique to evaluate students from an early level of learning. In addition, they suffer from their students' weak level of critical thinking and their impassivity. Furthermore, the obtained results showed that EFL learners are not well accustomed with critical thinking in addition to their lack of practice. In addition, they considered learning at university is difficult because their charged timetables and the nature of their lectures and examinations, which are based on memorization and neglect the other cognitive skills that they insisted on their crucial role for success.

All in all, it can be deduced that using research papers as a technique are very effective. This technique can be used to assign students to reduce their impassivity and gives them the opportunity to practice and express their thoughts. Also, it helps in avoiding being spoon-fed and avoiding the traditional teaching methods which are based on memorization and base them on students' thinking. Moreover, it helps students to develop their cognitive skills (critical thinking) and research skills. Nevertheless, adopting this technique requires certain conditions such as small number of students, availability of sources, time, etc.

Pedagogical Implication

Critical thinking is considered as one of the pillars of successful EFL teaching learning. Critical thinking can be affected by many factors such as: students' ignorance and the lack of practice. Therefore, to minimize critical thinking obstacles and to raise EFL students' awareness about the role of critical thinking, the researcher proposed a series of recommendations, which may help EFL students to be familiar with critical thinking and develop this skill.

Suggestions for Teachers and Syllabus Designers

From the obtained data, the following recommendations seem to be helpful for our teachers:

- It is highly recommended to change the ways of teaching and assigning methods and base them on all students' mental capacities not only on memorization.

- It is highly recommended to teach critical thinking and spread its culture among students from early levels due to its effective role for successful EFL learning.

- It is highly recommended for teachers to develop their students' critical thinking skills through teaching it implicitly and explicitly.

- It is highly recommended to impose/oblige students to practice inside classroom through adopting learner-centered strategies to reduce their impassivity.

- It is highly recommended to adopt research papers as assigning strategy from the 2nd year to develop their students' critical thinking and research skills.

Suggestions for Students

- Students should learn autonomously and engage in classroom.

- Students should be active in classroom and avoiding to be spoon-fed to reduce their impassivity.

- Students should learn about critical thinking to be aware about its effectiveness; precisely, in EFL learning.

- Students should not accept any information; however, they should read it and deeply for better understanding.

- Students should train their minds through reading and go deep in what they read to develop their critical thinking skills.

Suggestions for the Policy Makers

- Due to the overcrowded classrooms, it is recommended to reduce the number of students in the classroom because this prevents students from practicing what they learn in the classroom and teachers from providing effective feedback.

- Due to the students' charged timetables, it is recommended to minimize the number of lectures per day to make students more comfortable and give them time to practice, revising, etc.

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Appendices

Appendix 1: Teachers' Piloting Interview

Dear teacher,

This interview is an attempt to collect data for the accomplishment of a master dissertation on "The Role of Research Papers in the Development of EFL Learners' Critical Thinking". Therefore, we would be so grateful if you provide us with precise, clear, and complete responses. Be sure that your answers will be anonymous and will be used for research purposes only.

Thank you for your time, effort, and collaboration

Q1. Would you specify your degree?

a) Master

b) Magister

c) Doctorate

Q2. How long have you been teaching EFL at university?

a) 1-5 years

b) 5-10 years

c) More than 10 years

Q3. Do you think that cognitive skills are of great importance in the EFL teaching-learning operation?

a) Yes   b) No

Justify your answer please

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Q4. Which of the following cognitive skills have a great impact on EFL students' learning?

a) Understanding/Comprehension ☐

b) Interest ☐

c) Creativity ☐

d) Critical thinking ☐

e) All of them ☐

Q5. How can you define critical thinking?

Q6. How do you consider critical thinking?

Q7. How can you evaluate your students' critical thinking?

Q8. In your opinion, what characterises critical thinkers?

Q9. Is teaching critical thinking an easy task?

      a) Yes ☐   b) No ☐

If no, what make(s) it difficult?

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Q10. What are the main instructional strategies that teachers should use to develop their students' critical thinking?

Q11. According to you, to what extent assigning research papers can be useful as a teaching and learning strategy?

a) Very useful ☐   b) Somehow useful ☐   c) Not useful at all ☐

Explain please

Q12. Learning at university gives students the opportunity to develop their research skills.

Among the following research skills, which ones you think they can be developed through assigning research papers?

a) Personal skills (curiosity, time management, organization, etc) ☐

b) Academic skills (Reading, writing, oral skills, etc) ☐

c) Cognitive skills (understanding, creativity, problem solving, critical thinking, etc) ☐

d) All of them ☐

Q13. Do you think that there is a relationship between conducting research and critical thinking?

a) Yes ☐   b) No ☐

If yes, what kind of relationship exists between them?

a) Critical thinking is crucial for conducting research ☐

b) Conducting research contributes in the development of critical thinking ☐

c) They are interrelated ☐

If you would like to add any suggestions or comments, please feel free

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Appendix 2: Students' Piloting Questionnaire

Dear students,

This questionnaire is an attempt to collect data for accomplishment of a master dissertation on "The Role of Research Papers in the Development of EFL Learners' Critical Thinking". Therefore, we would be so grateful if you provide us with precise, clear, and complete responses. Please tick (✓) the appropriate answer(s) and write full statement(s) whenever it is necessary. Be sure that your answers will be anonymous and will be used for research purposes only.

Thank you for your time, effort, and collaboration

Prepared by:

HAMADA Soundous Marwa

e-mail: mimita200@yahoo.com

Supervised by:

Dr. ASSASSI Tarek

Academic Year, 2018-2019

Section One: General Information

Q1. Would you specify your gender please?

a) Female ☐   b) Male ☐

Q2. How did you find learning at university?

a) Easy ☐

b) Difficult ☐

c) So difficult ☐

Justify your answer please

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Q3. Did you find some difficulties when learning at university?

a) Yes ☐   b) No ☐

If yes, what kind of difficulties?

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Q4. Applying for the master degree was

a) Your own choice ☐

b) Your parents' choice ☐

c) Someone's advice ☐

If it was your own choice, was it because:

a) You would like to raise your level of education ☐

b) You would like to get more job opportunities ☐

c) You would like to have the opportunity to conduct

an academic research and develop your research skills ☐

d) Others

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Q5. How did you find learning in master level?

a) The same as it was in license level ☐

b) Easier than it was in license level ☐

c) More difficult than it was in license level ☐

Whatever your answer is, please justify

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Section Two: Critical Thinking

Q6. To what extent can each of the following factors influence students' progress in learning EFL in master level?

	No influence	Influence	Great influence
Personal factors (age, gender, work)			
Social factors (home environment, parents' income, peers, etc)			
Psychological factors (motivation, anxiety, attitude)			
Cognitive factors (understanding, creativity, interest, thinking skills)			

Q7. Do you think that cognitive skills have a great importance in learning English as a foreign language?

a) Yes ☐   b) No ☐

Justify your answer please

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Q8. According to you, which of the following cognitive skills have a great impact on learning EFL? You may choose more than one option.

a) Understanding ☐

b) Interest ☐

c) Creativity ☐

d) Critical thinking ☐

Q9. What does critical thinking mean to you?

a) Critical thinking is asking pertinent questions ☐

b) Critical thinking is being able to define a set of criteria for analyzing ideas ☐

c) Critical thinking is being able to examine beliefs, assumptions, and opinions ☐

d) Critical thinking is assessing judgments and arguments ☐

e) Critical thinking is finding solutions to some problems ☐

e) All of them ☐

Q10. Are you a critical thinker?

a) Yes ☐   b) No ☐   c) I do not know ☐

Q11. According to you, critical thinkers are: (you may choose more than one answer)

a) Those who have a sense of curiosity ☐

b) Those whose minds are full of questions ☐

c) Those who look for evidence to support assumptions and beliefs ☐

d) All of them ☐

Q12. Thinking critically helps you analyze and synthesize information for making the right decision. Do you believe that this may help you?

a) In your daily life ☐

b) When learning ☐

b) When sitting for examination ☐

c) When conducting research ☐

d) All of them ☐

Others…………………………………………………………………………………….……

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Section Three: The Relationship between Critical Thinking, Research, and Research Papers Quality

Q13. What kind of strategies do you think can improve your critical thinking skills?

a) Classroom tasks or projects (individually, in pairs, in groups)

b) Readings (in the class or out of the class)

c) Communicative activities (discussions, debates, dialogues, interviews)

d) Questioning

e) Research papers

f) All of them

Q14. During the current academic year, to what extent have your courseworks emphasized the following mental activities?

	Very much	Little	Very little
Memorizing facts, ideas or methods from your courses and readings, so you can repeat them in pretty much the same form			
Analyzing the basic elements of an idea, experience or a theory such as examining a particular case or situation in depth			
Synthesizing and organizing ideas, information and experiences into more complex interpretations and relationships			
Making judgments about the value of information, arguments or methods			
Applying theories or concepts to practical problems or in new solutions			

Q15. Do you think that there is a relationship between critical thinking and research?

a) Yes [ ]   b) No [ ]

If yes, what kind of relationship exists between them?

a) Critical thinking affects research quality   [ ]

b) Research develops critical thinking   [ ]

c) They are inter-related   [ ]

Q16. In which level of the research process you think that critical thinking has a great impact? You may choose more than one option.

a) At the beginning of the research process (when selecting the topic, searching for the sources, stating the questions and)   [ ]

b) During the research process (selection of the elements, citing, commenting and analyzing others' ideas)   [ ]

c) At the end of the research (when analyzing and discussing the results, and when drawing conclusions)   [ ]

d) All of them   [ ]

Q17. Do you think that assigning research papers can be an effective teaching strategy for developing your research skills?

a) Yes [ ]   b) No [ ]

Justify your answer please

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Q18. In your opinion, which of the following skills can be improved through writing research papers?

a) Interpersonal skills (questioning, problem solving, communication, etc.) ☐

b) Personal skills (self-dependence, self-confidence, self-regulation, etc.) ☐

c) Critical reading and reading strategies. ☐

d) Academic research writing skills ☐

e) Computer and internet research skills ☐

f) Cognitive skills (understanding, analysis, critical thinking, etc.) ☐

g) All of them ☐

Section Four: Opinionnaire

Q1. Are there some questions in this questionnaire that are difficult to answer?

        a) Yes ☐   b) No ☐

If yes, please mention them

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Q2. Do you think that the layout of the questionnaire is attractive?

        a) Yes ☐   b) No ☐

If no, what do you suggest to make it more attractive?

Q3. Are there any ambiguous questions?

        a) Yes ☐   b) No ☐

If yes, please mention them?

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Q4. Are there any repeated questions?

        a) Yes ☐   b) No ☐

If yes, please mention them

Thank you for your time, efforts and collaboration

Appendix 3: Teachers' Final Interview

Dear teacher,

This interview is an attempt to collect data for the accomplishment of a master dissertation on "The Role of Research Papers in the Development of EFL Learners' Critical Thinking". Therefore, we would be so grateful if you provide us with precise, clear, and complete responses. Be sure that your answers will be anonymous and will be used for research purposes only.

Thank you for your time, effort, and collaboration

Q1. Would you specify your degree?

a) Master ☐

b) Magister ☐

c) Doctorate ☐

Q2. How long have you been teaching EFL at university?

a) 1-5 years ☐

b) 6-9 years ☐

c) More than 10 years ☐

Q3. Do you think that cognitive skills are of great importance in the EFL teaching-learning operation?

a) Yes ☐   b) No ☐

Justify your answer please

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Q4. Which of the following cognitive skills have a great impact on EFL students' learning?

a) Understanding/Comprehension ☐

b) Interest ☐

c) Creativity ☐

d) Critical thinking ☐

e) All of them ☐

Q5. How can you define critical thinking?

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Q6. How do you consider critical thinking?

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Q7. How can you evaluate your students' critical thinking?

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Q8. In your opinion, what characterises critical thinkers?

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Q9. Is teaching critical thinking an easy task?

a) Yes ☐   b) No ☐

If no, what make(s) it difficult?

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Q10. What are the main instructional strategies that teachers should use to develop their students' critical thinking?

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Q11. According to you, to what extent assigning research papers can be useful as a teaching and learning strategy?

a) Very useful ☐   b) Somehow useful ☐   c) Not useful at all ☐

Explain please

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Q12. Learning at university gives students the opportunity to develop their research skills.

Among the following research skills, which ones you think they can be developed through assigning research papers?

a) Personal skills (curiosity, time management, organization, etc) ☐

b) Academic skills (Reading, writing, oral skills, etc) ☐

c) Cognitive skills (understanding, creativity, problem solving, critical thinking, etc) ☐

d) All of them ☐

Q13. Do you think that there is a relationship between conducting research and critical thinking?

a) Yes ☐   b) No ☐

If yes, what kind of relationship exists between them?

a) Critical thinking is crucial for conducting research ☐

b) Conducting a research contributes in the development of critical thinking ☐

c) They are interrelated ☐

If you would like to add any suggestions or comments, please feel free

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Apendix 4: Students' Final Questionnaire

Dear students,

This questionnaire is an attempt to collect data for accomplishment of a master dissertation on "The Role of Research Papers in the Development of EFL Learners' Critical Thinking". Therefore, we would be so grateful if you provide us with precise, clear, and complete responses. Please tick (✓) the appropriate answer(s) and write full statement(s) whenever it is necessary. Be sure that your answers will be anonymous and will be used for research purposes only.

Thank you for your time, effort, and collaboration

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Dr. ASSASSI Tarek

Academic Year, 2018-2019

Section One: General Information

Q1. Would you specify your gender please?

a) Female ☐   b) Male ☐

Q2. How did you find learning at university?

a) Easy ☐

b) Difficult ☐

c) Very difficult ☐

Justify your answer please

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Q3. Did you find some difficulties when learning at university?

a) Yes ☐   b) No ☐

If yes, what kind of difficulties?

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Q4. Applying for the master degree was

a) Your own choice ☐

b) Your parents' choice ☐

c) Someone's advice ☐

If it was your own choice, was it because:

a) You would like to raise your educational level ☐

b) You would like to get more job opportunities ☐

c) You would like to have the opportunity to conduct

an academic research and develop your research skills ☐

d) Others

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Q5. How did you find learning in master level?

a) The same as it was in license level

b) Easier than it was in license level

c) More difficult than it was in license level

Whatever your answer is, please justify

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Section Two: Critical Thinking

Q6. To what extent can each of the following factors influence students' progress in learning EFL in master level?

	No influence	Medium influence	Great influence
Personal factors (age, gender, work)			
Social factors (home environment, parents' income, peers, etc)			
Psychological factors (motivation, anxiety, attitude)			
Cognitive factors (understanding, creativity, interest, thinking skills)			

Q7. Do you think that cognitive skills have a great importance in learning English as a foreign language?

   a) Yes ☐   b) No ☐

Justify your answer please

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Q8. According to you, which of the following cognitive skills have a great effect on learning EFL? You may choose more than one option.

a) Understanding   ☐

b) Interest   ☐

c) Creativity   ☐

d) Critical thinking   ☐

Q9. What does critical thinking mean to you?

a) Critical thinking is asking pertinent questions   ☐

b) Critical thinking is being able to define a set of criteria for analyzing ideas   ☐

c) Critical thinking is being able to examine beliefs, assumptions, and opinions   ☐

d) Critical thinking is assessing judgments and arguments   ☐

e) Critical thinking is finding solutions to some problems   ☐

e) All of them   ☐

Q10. Are you a critical thinker?

   a) Yes ☐   b) No ☐   c) I do not know ☐

Q11. According to you, critical thinkers are: (you may choose more than one answer)

a) Those who have a sense of curiosity ☐

b) Those whose minds are full of questions ☐

c) Those who look for evidence to support assumptions and beliefs ☐

d) All of them ☐

Q12. Thinking critically helps you analyze and synthesize information for making the rightdecision. Do you believe that this may help you?

a) In your daily life ☐

b) When learning ☐

b) When sitting for examinatin ☐

c) When conducting research ☐

d) All of them ☐

Others

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Section Three: The Relatioship between Critical Thinking, Research, and Research Papers Quality

Q13. What kind of strategies do you think can improve your critical thinking skills?

a) Classroom tasks or projects (individually, in pairs, in groups) ☐

b) Readings (in the class or out of the class) ☐

c) Communicative activities (discussions, debates, dialogues, interviews) ☐

d) Questioning ☐

e) Research papers ☐

f) All of them ☐

Q14. To what extent do your teachers use the following mental activities?

	Very much	Little	Very little
Memorizing facts, ideas or methods from your courses and readings, so you can repeat them in pretty much the same form			
Analyzing the basic elements of an idea, experience or a theory such as examining a particular case or situation in depth			
Synthesizing and organizing ideas, information and experiences into more complex interpretations and relationships			
Making judgments about the value of information, arguments or methods			
Applying theories or concepts to practical problems or in new solutions			

Q15. Do you think that there is a relationship between critical thinking and research?

a) Yes ☐   b) No ☐

If yes, what kind of relationship exists between them?

a) Critical thinking affects research quality ☐

b) Research develops critical thinking ☐

c) They are inter-related ☐

Q16. In which level of the research process you think that critical thinking has a great impact? You may choose more than one option.

 d) At the beginning of the research process (when selecting the topic, searching for the sources, stating the questions and) ☐

 e) During the research process (selection of the elements, citing, commenting and analyzing others' ideas) ☐

 f) At the end of the research (when analyzing and discussing the results, and when drawing conclusions) ☐

 d) All of them ☐

Q17. Do you think that assigning research papers can be an effective teaching strategy for developing your research skills?

 a) Yes ☐   b) No ☐

Justify your answer please

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Q18. In your opinion, which of the following skills can be improved through writing research papers?

a) Interpersonal skills (questioning, problem-solving, communication, etc.) ☐

b) Personal skills (self-dependence, self-confidence, self-regulation, etc.) ☐

c) Critical reading and reading strategies. ☐

d) Academic research writing skills ☐

e) Computer and internet research skills ☐

f) Cognitive skills (understanding, analysis, critical thinking, etc.) ☐

g) All of them ☐

Section Four: Opinionnaire

Q1. Are there some questions in this questionnaire that are difficult to answer?

a) Yes ☐   b) No ☐

If yes, please mention them

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Q2. Do you think that the layout of the questionnaire is attractive?

a) Yes ☐   b) No ☐

If no, what do you suggest to make it more attractive?

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Q3. Are there any ambiguous questions?

a) Yes ☐   b) No ☐

If yes, please mention them?

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Q4. Are there any repeated questions?

a) Yes ☐   b) No ☐

If yes, please mention them

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Thank you for your time, efforts and collaboration

الملخص

يتوقع من طلبة الماستر إنجاز و تقديم مذكرات في نهاية مشوارهم الدراسي في الجامعة من اجل تخرجهم. ولقد افصح العديد منهم بانهم واجهوا العديد من المشاكل في جل مراحل البحث (قبل، إثناء، و بعد) و هذا قد يرجع الى عدم تمرنهم و تجربتهم في إنجاز البحوث بالإضافة إلى افتقارهم لبعض المهارات كمهارة البحث و المهارات الذهنية. إن الهدف من هذه الدراسة هو مناقشة دور و استعمال الأوراق البحثية في تطوير تفكير الطلبة النقدي. و منه فقد إفترضنا أنه كلما قام الطلبة بإنجاز و إعداد الأوراق البحثية، كلما تطور تفكيرهم النقدي. للتأكد من صحة هذه الفرضية اعتمدنا على دراسة ارتباطية مبنية على نتائج منهجية ثنائية (مختلطة). لجمع البيانات استعمل الباحث وسيلتين مختلفتين : مقابلة تم إجراؤها مع تسعة (9) أساتذة لغة إنجليزية بالإضافة الى استبيان تم توزيعه على خمسة و عشرين طالبا (25) سنة اولى ماستر تخصص علوم اللسان بجامعة محمد خيضر بسكرة. وقد اسفرت النتائج المتحصل عليها على اتفاق الأساتذة و الطلبة حول أهمية التفكير النقدي في تعلم اللغة الإنجليزية كلغة أجنبية بالإضافة إلى اتفاقهم حول الدور الفعال لاستعمال الأوراق البحثية كتقنية من أجل تطوير التفكير النقدي للطلبة. ومنه فإن النتائج المتحصل عليها قد أثبتت صحة فرضيتنا المقترحة وفي الأخير تم تقديم بعض التوصيات للأساتذة حول تغيير طرق تدريس و تقييم الطلبة إلى طرق ترتكز على كل ما يجعل الطلبة أكثر إبداعا و إنتاجية و ذلك بتبني و استعمال تقنيات مثل الأوراق البحثية لتطوير مختلف مهارات التعلم و البحث لدى الطلبة.