MASTER DISSERTATION

Letters and Foreign Languages

English Language

Sciences of the Language

Submitted by:

Nour Abdelaidoum

The Relationship between Students Metacognitive Awareness and Creativity in Learning English
Case of Master Students of English at Mohamed Khider University of Biskra

Dissertation submitted to the Department of Foreign Languages in partial fulfilment of the requirements for the Degree of **Master** in **Sciences of the Language**.

Board of Examiners

Chair: Mr. Walid AOUNALI   Mohamed Kheider University of Biskra

Supervisor: Prof. Saliha CHELLI   Mohamed Kheider University of Biskra

Examiner: Mrs. Nadjet MOUSSAOUI   Mohamed Kheider University of Biskra

July 2021

Declaration

I, **Nour ABDELAIDOUM**, do hereby declare that this dissertation is my own original work

and my own effort that has been compiled in my own words and has not been submitted for

any academic institution or University for any degree before.

This study was conducted and completed at Mohamed Kheider University of Biskra, Algeria.

Certified

Ms. Nour Abdelaidoum

Dedication

It is with genuine gratitude and warm regard that I dedicate this work to, first, my mother and my father from whom I learned to be strong, to be patient, and to be committed. Thank you.

I would, also, like to dedicate this work to my two little sisters Malak and Chahd who always look up to me, whom I love beyond words.

To my kind grandmothers, my aunts and my uncles, and especially to my forever cherishing and supportive uncles Farid, Majdi, and Nassim. Thank you.

To my friends, and my companions in this journey. Thank you.

To everyone and anyone that has been kind, inspiring, and supportive. Thank you.

Acknowledgment

First and foremost, I would like to praise Allah the Almighty, the Most Gracious, and the Most Merciful for granting me strength and patience during my studies and in the journey of completing this dissertation.

I would like to express my gratitude to my teacher and my supervisor **Pr. Saliha Chelli**; her constant guidance, advice, and encouragement helped me to complete this work.

I would like to express my thanks to the Board of Examiners; namely, **Mrs. Nadjet MOUSSAOUI** and **Mr. Walid AOUNALI** for spending time in the correction of this work, and for their advice and their insights.

My sincere gratitude to my teachers throughout the past five years, for their guidance, advice, and kind words, **Mr. Lamdjed EL HAMEL**, **Mrs. Sara HEBIRAT**, **Mrs. Asma TAALLAH**, and **Ms. Kenza MERGHMI**.

Special thanks should go to the teachers who accepted to partake in the interviews: **Pr. Saliha CHELLI**, **Mrs. Samira MESSAIBI**, and **Ms. Kenza MERGHMI**.

Abstract

The purpose of this study was to investigate the relationship between metacognitive awareness and creativity in English learning at Mohamed Khider Biskra University, this was via exploring and describing EFL master teachers' and master students' perceptions and attitudes on whether or not EFL master teachers and students think that there is a relationship between metacognitive awareness and creativity. The mixed method approached was used combining quantitative and qualitative data in order to answer the research questions and verify the following research hypothesis: EFL master students think that there is a relationship between metacognitive awareness and creativity. For this purpose, a structured questionnaire was administered to a sample of 48 EFL master students in addition to a semi-structured interview conducted with three EFL master teachers, both samples purposively selected. The results obtained revealed that both EFL master teachers and students agree that creativity and metacognitive awareness are associated. Therefore, based on the findings, the null hypothesis was rejected in favor of the alternative one. However, EFL students' perspectives to the process of creativity were, to some extent, contradictory; their answers revealed that the majority of them believe their creativity comes from an unconscious process, yet they agreed that metacognitive awareness promotes creativity. Thus, further research is required to examine how and to which extent are metacognitive awareness and creativity significantly related.

Keywords: Metacognition; metacognitive awareness; creativity

List of Abbreviations and Acronyms

ALA: Association of Language Awareness

AUT: Alternative Uses test

Cr: Creativity

CAT: Consensual Assessment Technique

CK: Conditional Knowledge

CPS: the Osborn Parnes Creative Problem Solving process

CSQ: Creativity Styles Questionnaire

DK: Declarative Knowledge

DS: Debugging Strategies

E: Evaluation

EFL: English as a Foreign Language

FLL: Foreign Language Learning

FOK: Feeling-Of-Knowing

IMS: Information Management Strategies

J: Judgment

M: Monitoring

MA: Metacognitive Awareness

MAI: Metacognitive Awareness Inventory

ME: Metacognitive Experiences

R: Recognition test

SPSS: Statistical Package for Social Sciences

P: Planning

PK: Procedural Knowledge

List of Figures

List of Tables

Contents

General Introduction

General Introduction

1. Introduction

2. Statement of the Problem

3. Research Aims

4. Research Questions

5. Research Hypothesis

6. Significance of the Study

7. Research Methodology

7.1. Research Approach

7.2. Population and Sample

7.3. Data Collection Tools

7.4. Data Analysis Procedures

8. Structure of the Dissertation

1. Introduction

Cognition is concerned with comprehending and processing the output a human being is exposed to. It involves mental processes like thinking, problem-solving, decision-making, memory, attention and metacognition. The latter is thinking about thinking and thinking about how to process mental operations; it is the awareness and active control over one's own cognition. Cognition and metacognition cannot exist without one another; Metacognition, nonetheless, deals with higher order cognitive processes, which include planning, monitoring, evaluating, and adjusting. Awareness of one's own cognitive processes helps completing a given task successfully. For instance, a teacher reads a list of numbers and asks her/his grade 3 pupils to add up the list of numbers. While adding up numbers, the pupils are using their cognition. Synchronously, they may use strategies like "I should write down those numbers so that I do not forget them, and then I will be able to add them up easier on paper" or "I should check twice or three times, just to be sure I do not make any mistake" denoting that their metacognition is involved. This example portrays the importance of metacognition, as it helps to verify and build confidence. On this account, awareness of one's own mental processes promotes productive learning.

Furthermore, it has been acknowledged that individuals who are strategic in their learning are more successful than those who do not reflect on their learning process (planning, monitoring, evaluating). Students who question, revise, and assess their learning process are more aware of what they aim to learn, how to succeed in learning it, and whether the desired outcomes are being met or no. According to Flavell (1979); Schraw, (1998); Schraw & Moshman (1995), metacognition consists of two processes: knowledge of cognition and regulation of cognition (cited in Shoghi & Ghonsooly, 2015, p.1051). Knowledge of cognition (awareness) is about knowing what metacognitive factors influence learning and performance as well as knowing how to enhance both learning and performance. Regulation of cognition

involves taking action and applying the knowledge of cognition to make learning processes more efficient and to achieve better learning outcomes.

"Creativity is those attitudes by which we fulfill ourselves. It is the expression of ourselves in our becoming. It is our "being becoming" (Young, 1985, p.77). According to Young (1985), creativity is innovation and improvement; making up something new, more valuable, and more beneficial through imagination. Moreover, Amabile (1983), who made significant contribution to the research field of creativity, claims that a product or a response is considered creative if it is novel, appropriate, useful, and valuable. An individual is creative if he/she is able "to create" something original and unique, but also of value and benefit. Creativity is a multidimensional and deeply rooted in all aspects of life; it is explored and discussed from different perspectives with the aim of better understanding of this complex concept.

Since the late 1900s, creativity has been recognized as a desirable research aim in Education. According to Robinson (2009), educational systems not only constrain creativity, but also drain it out of learners. Moreover, Inggårde (2014) stated that individuals' learning experiences are often tedious, learners do not attempt to personalize their learning, do not look for new ways to carry out tasks and activities, and they do not implement inventive and original problem solving strategies.

The incitement to explore connections between creativity and other cognitive constructs have risen from the agreed on opinion among different cognitive models, which asserts that creativity is constantly fluctuating between divergent and convergent thinking (de Acedo Lizarraga & de Acedo Baquedano, 2015). The oscillation between convergent and divergent thinking ought to be balanced for creativity to occur. Additionally, as attested by de Acedo Lizarraga and de Acedo Baquedano (2015), creative thinking is considered as a metacognitive process that encompasses the awareness of a learner with the ability to regulate a creative

sequence. In addition, the incorporation of knowledge, regulation, and evaluation of one's own cognition with the employment of personal effort is assumed to precipitate creation.

Although previous theoretical and empirical evidence exist to confirm that the activation of creative potential requires metacognition; however, the association between metacognition and creativity is still controversial. Therefore, further in-depth research is required to confirm the existence of the association between metacognitive awareness and creativity, and to explore the kind of relationship between the two. This present study aims to explore perceptions and attitudes of both EFL master teachers and master students at Mohamed Khider University of Biskra as an attempt to reach better understanding about the two problematic concepts and to explore teachers' and students' beliefs about the relationship between metacognitive awareness and creativity.

2. Statement of the Problem

Metacognition is knowledge, awareness, and control of one's own higher order thinking skills. Metacognition in ELT learning means being aware of one's competencies and one's incompetencies, aware of others and the environment around, and of one's learning process. Metacognitive awareness raises learners' consciousness about themselves and about their learning; henceforth, it develops autonomy, self-efficacy, and self-directedness. According to Thamraksa (2005), metacognition involves metacognitive knowledge and metacognitive experiences that, respectively, guide learners in the management of a task, and help them plan and monitor their cognitive activities. Moreover, Thamraksa (2005) argued that it is crucial for EFL teachers to teach not only the language, but also metacognitive strategies in order to enable learners to plan, control, and evaluate their learning; thus, help them become effective and proficient language learners. In addition to effectiveness and proficiency, metacognitive awareness is proven to have an influence on enhancing motivation, autonomy, critical thinking, and creativity. Results in a study conducted by Çakici (2018), confirmed that there is a highly

significant positive correlation between metacognitive awareness and critical thinking. Additionally, Jia, Li, and Cao (2019) indicated that the selection, evaluation, and monitoring of cognitive strategies are crucial for creative thinking. Videlicet, several works have empirically attested that learners' metacognitive knowledge contributes to domain-specific creativity (Jia et al., 2019).

Language is a social phenomenon, the fundamental and conventional purpose of learning a language is communication; additionally, intrapersonal communication is as important as interpersonal communication since individuals that are good communicators with themselves, well aware of themselves are in turn successful communicators with others. Lightbown and Spada (2006) asserted that learners' psychological needs, mental factors, as well as their personal peculiarities play an essential role in developing a theory of teaching that is furnished with sufficient and correct knowledge. Language is creative and infinite, individuals are capable of transforming their thoughts into words and sentences in ways that are never heard or seen before. Moreover, in the age of cognitive revolution, the restricted traditional listen and repeat methods of teaching language are no longer productive; they smothered creative thoughts. On the word of Fehér (2007), there are certain individuals who cannot practice the language if they do not understand the point of it; without a real content, purpose, outcome, and a product. They are incapable of learning at all if they are not permitted to be creative. Fehér (2007), also, asserted that creativity is important in language classroom as it increases motivation, inspiration, and self-esteem.

Therefore, metacognitive awareness is an essential skill in language learning, and creativity is considered as a substantial metacognitive factor, which affects and shapes learning English as a Second or Foreign Language (Nosratinia & Zaker, 2014). In addition, Kabilan (2000) asserted that in order to be proficient in a language, learners need to employ creativity through the target language. Thus, inspecting the relationship between metacognitive awareness and creativity in EFL context seems to be justified and crucial for the purpose of the advancement

of EFL learner's language proficiency. In this light, this study explored and described EFL master teachers' and EFL master students' attitudes and perceptions on the relationship between metacognitive awareness and creativity, in the case of Advanced Master students at Mohamed Khider University of Biskra.

3. Research Aims

The general aim of this study was exploring and describing EFL master teachers' and students' attitudes and perceptions on the relationship between students' Metacognitive awareness and Creativity.

More specifically, this research work sought to:

- Identify EFL master teachers' attitudes and perceptions on the relationship between students' metacognitive awareness and creativity.

- Identify EFL master students' attitudes and perceptions on the relationship between students' metacognitive awareness and creativity.

- Investigate EFL master teachers' and EFL master students' perceptions about the type of relationship between metacognitive awareness and creativity.

- Emphasize the importance of metacognitive awareness and deliberate conscious learning not only in developing learners' proficiency, but also in promoting creativity.

- Accentuate the importance of creativity in EFL teaching and learning.

- Explore EFL master teachers' attitudes on the reasons behind the lack of creativity in Algerian EFL classroom.

4. Research Questions

This research sought to answer the following research questions:

RQ1: Do EFL master students think that there is a relationship between metacognitive awareness and creativity?

RQ2: What type of relationship do EFL master students think associates metacognitive awareness and creativity?

RQ3: What are EFL master teachers attitudes and perceptions on the relationship between students' metacognitive awareness and creativity?

5. Research Hypothesis

From the aforementioned research questions, we hypothesized that:

RH1: EFL master students think that there is a relationship between metacognitive awareness and creativity.

6. Significance of the Study

"Strong metacognitive skills empower second language learners", (Anderson, 2003). Reflecting upon their learning strategies, enables learners to take conscious decisions about how to improve their learning process. Blake (2021) mentioned that metacognition ameliorates self-awareness skills and that evaluating thought processes enables individuals to reframe their thinking to adapt to new situations. The importance of research on metacognitive awareness in the EFL context is not, solely, limited to the attempts to enhance language learners' effectiveness and language proficiency, it is also concerned with the contribution of metacognitive awareness in promoting other metacognitive factors including autonomy, critical thinking, problem solving, and creativity.

"We are humans and we simply cannot help but be creative. This is how we survive. Why do we then think that creativity is something extra in our classrooms and not an integral part of what we do?" (Fehér, 2015, p. 64). In this fast-changing information era, higher education systems around the world are emphasizing the importance of developing learners' higher mental competences including creative thinking. Besides, education is about preparing students to the future and future is unpredictable and real life challenges are open ended; thus, in order to be prepared for the open future, learners are required to be flexible and open themselves. Openness, in turn, will incite creativity. As attested by Stepanek (2015), Creativity promotes

meaningful language learning. Subsequently, creativity is a skill that all learners can develop; it provides unlimited number of ideas, problem solving strategies and solutions, new perspectives and opinions.

Consequently, since this field of research is rather underemphasized in the Algerian context, and the focus is more on technical and tangible aspects of language such as phonetics, speaking skill, and writing skill. On the other hand, the cognitive and psychological aspects are largely neglected despite their paramount significance and influence on foreign language learners. Thus, this study served to gain more insights into the relationship between metacognitive awareness and creativity, find research gaps, correct some misconceptions, and collect thorough and insightful data.

Due to the controversial nature of this research along with the complex nature of the concepts of metacognition and creativity, which poses challenges in investigating and measuring them especially in the case of novice researchers. Thus, a descriptive study was, principally, a preliminary step to explore EFL master teachers' and EFL master students' attitudes and perceptions, and it helped laying the foundation for future research following correlational and experimental research methods. Furthermore, findings of this research emphasized the benefits of metacognitive awareness on EFL master students, and its contribution in precipitating creativity.

7. Research Methodology

7.1. Research Approach

This study aimed to investigate EFL master teachers' and EFL master students attitudes and perceptions on the relationship between students' metacognitive awareness and creativity; henceforth, the mixed-methods approach, which incorporates both quantitative and qualitative methods was adopted due to the nature of the study for the purpose of obtaining answers to the research questions.

7.2. Population and Sample

To gather data about how EFL master students' perceive the relationship between metacognitive awareness and creativity, a sample of (48) EFL master students from both specialties; namely, sciences of the language and civilization and literature were purposively selected at Mohamed Khider University of Biskra.

In addition, a sample of (3) EFL master teachers were purposively selected from a population of more than (50) EFL teachers at the Department of Foreign Languages at Biskra University. The three teachers were carefully chosen for the sake of collecting data about their attitudes and perceptions concerning the association between students' metacognitive awareness and creativity.

7.3. Data Collection Tools

In order to obtain answers to the research questions and to test the hypothesis, two data collection instruments were used; namely, a structured questionnaire for students and a semi-structured interview for teachers. The questionnaire was administered to (48) EFL master one and master two students from both specialties (sciences of the language, and civilization and literature) with the intention of determining participants' attitudes and perceptions towards the possible association between metacognitive awareness and creativity. In addition, seeking to find answers to the third and last research question, which deals with teachers' attitudes and perceptions on the relationship between their students' metacognitive awareness and creativity, we administered a semi-structured interview to three purposively selected EFL master teachers.

7.4. Data Analysis Procedures

With the intention of analyzing the quantitative data collected from the students' questionnaire, the services of the SPSS software were used to operate both descriptive and inferential statistics. In addition, the content analysis method was employed in order to analyze and interpret the qualitative data collected from the teachers' interviews.

8. Structure of the Dissertation

This present study includes two main parts; the first part is the theoretical background and the second part is the fieldwork, which includes analysis, interpretation, and findings of this investigation.

Initially, the theoretical part is divided into two chapters; the first chapter covers the first variable; namely, metacognitive awareness; it discusses definitions of the terms cognition and metacognition, history of research on metacognition, and two different models of the components and sub-components of metacognition. In addition, the first chapter explains metacognitive awareness and metacognitive experiences, and emphasizes the importance of metacognitive awareness in EFL teaching/learning. Lastly, chapter one concludes with a synthesis of findings of previous studies that investigated the correlation between metacognitive awareness and creativity.

Subsequently, the second chapter covers creativity, which is the second variable. This chapter defines the term creativity, explains its components, and discusses the issue of gender differences in creativity. Moreover, chapter two highlight the importance of fostering creativity in EFL learning contexts and discusses teachers' beliefs on creativity.

Consequently, the third chapter outlines and details the rationale for the selection of the data collection tools and the data analysis procedures along with describing, summarizing, analyzing, and interpreting the results obtained in order to confirm or disconfirm the aforementioned hypothesis.

Chapter One

Metacognitive awareness

Chapter One: Metacognitive Awareness

Introduction

1. 1 Cognition

1. 2 Metacognition

1. 3 History of Research on Metacognition

1. 4 Components of Metacognition

      1. 4. 1 Flavell's Model of Cognitive Monitoring

      1. 4. 2 Brown's Model of Metacognition

1. 5 Metacognitive awareness

1. 6 Metacognitive experiences

1. 7 Importance of Metacognitive Awareness in EFL Teaching/Learning

1. 8 Metacognition and Creativity

Conclusion

Introduction

Metacognition is one of the compelling yet enigmatic fields of research in EFL teaching and learning contexts. Foreign language teachers and learners agree that metacognition is a difficult concept to explain and comprehend; thus, it would even be a harder task to implement it in language learning activities. However, the significance of metacognition in language learning and the advantages metacognitive language learners possess are indisputable. For instance, good language learners should be aware of their competencies and incompetencies this will enable them to assess their learning process, adjust it, identify problems, and find solutions for them. Correspondingly, metacognitively aware language learners are proficient successful learners. In addition to proficiency, numerous recent studies suggest that metacognitive awareness might be associated with other cognitive mechanisms such as divergent thinking and creativity. Metacognitive awareness is; thus, of paramount importance in the language classroom. This chapter introduces research on metacognition throughout history under the umbrella of cognitive and educational psychology and presents the different conceptual definitions suggested by various scholars. Subsequently, the chapter discusses two models of metacognition, which entail its components and sub-components. Furthermore, Flavell's main interactive variables metacognitive awareness and metacognitive experiences are discussed. To conclude, this chapter explains how metacognition is beneficial in education, and how it promotes language learners' proficiency as well as creativity.

1.1 Cognition

The association between language and cognition is of crucial importance to language teaching and learning in general, and to EFL teaching and learning in particular. Grasping the meaning and fundamentals of cognition is, thus, an initial step towards research on the functions of cognitive processes in language learning activities. Gentner and Goldin-Meadow (2003) argued that "Language is a powerful mediator of cognition" and "much of our lives is spent in language-related activities." Furthermore, Hennessey (1999) emphasized the significance of

higher-levels of cognitive activity, as they are crucial for intellectual development and learning. Hennessey (1999) claimed that in order to promote intellectual functioning and knowledge development, there are two components to be considered: cognition (systematically organizing one's own intellectual resources) and metacognition (knowing about one's own thinking processes). These two higher level cognitive activities are closely connected.

Cognition, a word that dates back to the 15th century, it referred to "mental act, the ability to comprehend, or the process of knowing". The term comes from the Latin noun cognitionem, which is a noun of action from the past participle stem of cognoscere that stands for "to get to know, and recognize" as mentioned in the Online Etymology Dictionary (n.d.). Furthermore, Merriam-Webster dictionary (n.d.) defines cognition as "the mental processes" or "the product of these mental processes" whereas The Century Dictionary and Cyclopedia (1900, p. 1091) describes cognition as "the acquisition of knowledge by thinking or the knowledge itself." For instance, the formation of a concept, an argument, or a judgment. Further explanation stated in The Century Dictionary and Cyclopedia (1900, p. 1091) notes that cognition is a mental representation, whether an act or a product, which by the operation of thought, perception, or memory is made to correspond to an external object.

Moreover, Thenmozhi (2019) referred to "cognition" as "an art by which the knower becomes the object known. It is impossible to know an object unless we have cognitively the abstract form of the object we know." Transforming sensory input into several ways; perceiving, coding, storing, memorizing, and retrieving that information through certain mental processes is called cognition. According to Bayne et al. (2019), a state or process is considered cognitive if it involves concepts like thinking, reasoning, perceiving, imagining, and remembering. Although they argued that there is, yet, not a particular definition that covers all of the legitimate uses of the term. Thinking and reasoning are the fundamental cognitive abilities. Conscious use of cognition allows humans to make sense of the world, interpret different input, form representations of their experiences in their heads and also allows them to

communicate; thus, cognition and research about cognition is vital in language learning and language use.

1.2 Metacognition

Metacognition is a multidimensional concept; a plethora of research and experimentations have been conducted in an attempt to understand its multiple facets, develop it and employ it for the benefit of learning in general, and language learning in particular. The term metacognition is a combination of two words: Meta, which is a Greek root word meaning "beyond" and the Latin word cognoscere, meaning, "getting to know". In Merriam-Webster dictionary, the term is defined as the awareness and the analysis of one's own thinking or learning process. Brown (1987) argued, "metacognition is not only a monster of obscure parentage, but a many-headed monster at that" (p. 105) (cited in Nazarieh ,2016, p. 62). Several scholars referred to metacognition as a "fuzzy" concept given the fact that it has many diverse meanings.

For over three decades, much research has been undertaken in order to disclose and understand the core of this concept. Kallio et al. (2018) stated that it has been studied from different perspectives and a variety of fields. Throughout the years, various synonyms has been given to the term metacognition. Akturk and Sahin (2011) have listed a number of terms denominating metacognition that were used in relevant literature; self-management as referred to by O'Neil & Speilberger (1979), meta-learning as called by Cross & Steanmand (1996), metamentation as identified by Bogdan (2000), in addition to metacognitive beliefs, executive skills, metacomponents and judgments of learning as reported by Veenman, Van Hout-Wolters, and Afflerbach (2006). Moreover, "Mindfulness" is, also, a term that describes the awareness of situations and problems in addition to ways to think and talk about them, according to Salomon and Globerson (1987) as cited in Georghiades (2004).

The American developmental psychologist Flavell (1979) proposed the concept of metacognition and defined it as "knowledge and cognition about cognitive phenomena."

(Flavell 1979, p. 906). Whereas, Cross and Paris (1988) referred to it as "self-appraisal." Schraw and Dennison, who constructed the Metacognitive Awareness Inventory (MAI), defined metacognition as "the ability to reflect upon, understand, and control one's learning." (Schraw & Dennison, 1994, p. 460). Moreover, Robinson (2001) explained metacognition as "learning with awareness." According to Robinson (2001), metacognition is concerned with learning a cognitively demanding skill, forming conscious hypotheses about the target of learning, and modifying those hypotheses when encountering new information.

As per Brinck and Liljenfors (2013), metacognition includes monitoring and controlling cognition, which allows individuals to perform strategies and operations on the cognitions of the embodied mind. In addition, the term is explained as the act of using one's own cognition (knowledge) to comprehend information and recognize one's own mental potential (Miller, 2017). Even though the concept of metacognition have been problematic, research have attempted to comprehend its fundamentals. Various research have proposed various terms, which referred to metacognition throughout literature, most of them agreed that metacognition is about the conscious awareness of one's self, one's thinking processes, and the attempt to maximize one's skills in order to achieve designed goals and objectives.

1.3 History of Research on Metacognition

Metacognition is a field of inquiry that have progressed through a number of phases, and has been investigated by several researchers through diverse methodologies; nonetheless, this concept is still mysterious and research on it is still evolving. For two decades, language acquisition was merely based on reinforcement and habit formation since behaviorism provided limited explanations to the human behavior; for instance, it did not sufficiently elucidate language acquisition and the rate at which language is learned. According to Tomic (1993), the circumstances necessitated making assumptions about processes occurring in the human brain. During the 1950's and 1960's, Cognitivism transferred attention to human mental processes, logic, and reasoning. Therefore, Educational practitioners, as attested by Belkhir (2020),

changed the course from observing learners' behavior to adopting methods that focus uniquely on language, on thinking, problem-solving, processing information, and on forming concepts. Furthermore, Belkhir (2020) argued that cognitive linguistics arose as a research field in the late 1970s and early 1980s, to explore and explain the close relationship between language and cognition.

The 1960s', "cognitive revolution" marked the emergence of another field of research and another compelling yet complex concept, "metacognition", which meant "cognition about cognition". Modern research on metacognition had two coextending roots, as claimed by Perfect and Schwartz (2002). One root is Hart's (1965) 'Memory and the Feeling-of-Knowing Experience', the other root is post-Piagetian developmental psychology; namely, Flavell's (1979) 'Metacognition and Cognitive Monitoring: A New Area of Cognitive—Developmental Inquiry'.

Hart (1965) was interested in evaluating the accuracy of feeling-of-knowing experiences meaning how accurate could people judge their memory. The study went through three phases. He, first, conducted a recall test about some piece of general knowledge or a newly learned information, then participants were asked to make a Feeling-of-Knowing (FOK) Judgment (J); in other words, they indicated whether they succeeded in recalling the information or not. At last, participants received a Recognition test (R). Hart's (1965) experiments demonstrated that the Feeling-Of-Knowing Judgments predicted the possibility of the correct recognition of general information.

Flavell (1979), thereafter, came to examine the ability to reflect on one's own cognitive mechanisms. He was concerned with whether metacognition enhanced children's memory or not; thus, he investigated the development of metacognitive thinking. Metacognition is "knowledge and cognition about cognitive phenomena." As defined by Flavell (1979, p. 906). Alternatively, as often referred to in the literature "cognition about cognition" that is "thinking

about thinking". The term "metacognition" was coined and introduced to the domain of cognitive psychology and educational psychology by John Flavell in the early 1970s, based on the term "metamemory" previously elaborated by Flavell himself in 1971. In 1986, Nisbet and Shucksmith referred to metacognition as "the seventh sense" which purports awareness of one's own mental processes, reflection on ones' learning, understanding, monitoring and adjusting, as cited in Nazarieh (2016).

Metacognition is an individual's knowledge and control over his/her own thinking and learning activities as argued by Cross and Paris (1988). Furthermore, the metacognitive learner is capable of recognizing, evaluating and, when needed, reconstructing existing ideas to adapt with new situations (Gunstone, 1991 as cited in Georghiades, 2012). Since the early 1970s, researchers and teachers in the field of second-language learning have been interested in the cognitive abilities that language learners bring to the task of acquiring another language (Wenden, 1986). This concern was reflected in theoretical models, which suggested that learner strategies could explain how language learners learn and acquire language.

Flavell, in his model of cognitive monitoring (1979), argued that monitoring cognitive enterprises occurs via the actions of and interactions among four interactive sub-parts of metacognition: metacognitive knowledge, metacognitive experiences, goals, and strategies. As per Flavell (1979, p. 906), metacognitive knowledge is "that segment of your (a child's, an adult's) stored world knowledge that has to do with people as cognitive creatures and with their diverse cognitive tasks, goals, actions, and experiences." Moreover, metacognitive experiences are "any conscious cognitive or affective experiences that accompany and pertain to any intellectual enterprise." Goals (tasks) are "the objectives of a cognitive enterprise." and actions (or strategies) "refer to the cognitions or other behaviors employed to achieve them." (Flavell 1979, p.907). Metacognition occurs as a result of the interaction between the four variables,

metacognitive knowledge, metacognitive experiences, cognitive goals or purposes, and cognitive strategies.

Brown's model of metacognition (1987), proposed two constituents for metacognition: knowledge of cognition and regulation of cognition. In addition, further studies came to characterize knowledge of cognition into declarative, procedural, and conditional knowledge. Declarative knowledge refers to the knowledge about one's self (competencies and incompetencies) and to factors influencing one's performance as a learner. Procedural knowledge denoting the knowledge of how to use certain strategies to undertake a certain tasks. In addition, conditional knowledge is concerned with knowing why and when to use declarative, and why and when to use procedural knowledge. Moreover, regulation of cognition is, according to Brown (1987), a group of executive skills and activities that help learners regulate and control their thinking and learning. This group of activities involves planning, monitoring, and evaluation strategies. As reported by Nazarieh (2016), planning is about cautiously selecting relevant strategies and about allocating appropriate resources, which influences performance. Monitoring is concerned with regularly checking one's progress and comprehension. Evaluation strategies deal with assessing the outcomes of comprehension or the learning process after completing a specific task.

In Brown's model of metacognition, she made a distinction between knowledge of cognition and regulation of cognition, the difference between the two is that regulation of cognition is unstable and age independent, as mentioned by Nazarieh (2016). Brown (1987) regarded regulation of cognition as relatively unstable; expressly, adults might not use strategies to solve a simple problem. Features of knowledge about cognition are regarded as relatively consistent within individuals (Thenmozhi, 2019); knowledge about cognition remains stable but fallible within individuals. Moreover, according to Brown (1987), regulation of cognition is age independent, which means that young learners might not be able to monitor, control, and

adjust their strategies. In addition, Thenmozhi (2019) explained that Brown's distinction suggests that regulating one's self is more context than age dependent, and self-regulation might be affected by factors like anxiety, fear, interest, self-esteem, and self-efficacy. Difference between the knowledge about cognition and regulation of cognition is that knowledge is relatively stable and consistent whereas regulation is relatively unstable, changing from situation to another and from context to another.

For years, the concept of metacognition has been the fundamental concern of metacognitive instruction. Foreign and Second language educators advocating the use of cognitive skills and strategies to improve language learners' self-directedness; likewise, agree that metacognitive knowledge should be a part of learner training programs (Wenden, 1998). An instructional study was designed to examine the developing relation between children's metacognition and reading comprehension conducted by Cross and Paris (1988). They used Informed Strategies for Learning (ISL) in order to enhance third- and fifth-grade children's awareness and teach them the use of effective reading strategies. They affirmed that children in the experimental classes learned declarative, procedural, and conditional knowledge about reading; in addition, they improved performance in strategic reading tasks.

Moreover, research have shown that metacognition has been regarded as an effective method to help learners become more strategic and flexible writers as stated by (Islas, n.d.). Correspondingly, "Metacognitive writing strategies involve thinking about the writing process, its planning, monitoring, and self-evaluating of what has been written." (Goctu, 2017, p. 85). In order to regulate and direct one's writing production, learners are required to consciously think about the writing process; design a plan, monitor their progress, and evaluate the final written product. Similarly and according to Djudin (2017), developing metacognitive strategies in any content enhances learners' autonomous and strategic learning. Several investigations and findings have proven that the implementation of metacognitive strategies has an influential role

in promoting and developing different aspects of language learning; for instance, academic writing and reading comprehension, as well as problem solving and critical thinking. Metacognition; thus, is of paramount significance in language teaching and learning.

1.4 Components of Metacognition

There is a number of models of metacognition designed by cognitive psychologists. Flavell's model of cognitive monitoring and Brown's model of metacognition are the ones used extensively; these two taxonomies suggest components and sub-components of metacognition.

1.4.1 Flavell's Model of Cognitive Monitoring

Flavell's model entails four interactive classes of phenomena: metacognitive knowledge, metacognitive experiences, goals (tasks), and actions (strategies); in addition, Flavell (1979) divided metacognitive knowledge into person-related variables, task-related variables, and strategy-related variables.

First, metacognitive knowledge is "that segment of your (a child's, an adult's) stored world knowledge that has to do with people as cognitive creatures and with their diverse cognitive tasks, goals, actions, and experiences." (Flavell, 1979, p. 906). For example, when a child is aware of what he/she is better at in comparison with his/her classmates; better in spelling or better in drawing. Second, Flavell defined metacognitive experiences as any conscious experience that accompanies any mental operation either affective (relating to, resulting from, or influenced by the emotions) or cognitive (relating to one's mental functions or abilities). Supplementarily, Efklides (2001) argued that the difference between metacognitive experiences and metacognitive knowledge is that the former is concerned with one's feelings dissimilar to the latter. According to Efklides (2001), this gives metacognitive experiences a personal subjective nature. Third, goals (tasks) fundamentally refer to the objectives of any mental operation or cognitive activity. The last sub-part is actions or strategies meaning the decisions, judgments or any other behavior performed to achieve the designated objectives.

Based on Flavell's Model, metacognitive knowledge is concerned with factors or variables, which interaction affects the sequence and product of the cognitive processes. The three major categories of these factors or variables are person knowledge, task knowledge, and strategy knowledge. Person knowledge is everything one knows or believes about him/herself (beliefs about intraindividual differences) and about other people (beliefs about interindividual differences) as cognitive processors. For example, a learner's awareness about which learning style is best apt for him/her or the realization that one classmate is more extroverted than the others are. According to Thamraksa (2005) the person knowledge is an individual's knowledge and beliefs about him/herself as a thinker or a learner, and his/her beliefs about other people as thinking organisms. The metacognitive knowledge in the task category is about understanding the state of the information available while carrying on a task, whether sufficient or not, familiar or not, organized or not, interesting or not, credible or not, and so on. In addition to the appropriate management of that information in order to successfully achieve the task's objectives. You and Joe (2001) note that task category involves metacognitive knowledge about task demands or goals. As for the strategy category, Flavell stated, "What strategies are likely to be effective in achieving what subgoals and goals in what sorts of cognitive undertakings." Furthermore, Pintrich (2002) explained it as "the knowledge of general strategies for learning, thinking, and problem solving." An example given by You and Joe (2001) is when a learner writes something, he/she reads his or her own written product as a reader to check if the text is coherent or not.

According to Flavell's model, metacognition is knowledge and thinking about one's mental processes. It constitutes of four dimensions namely, metacognitive knowledge, metacognitive experiences, goals, and strategies. Metacognitive knowledge in turn comprises of three components: first, person variables, which is the knowledge one possesses about him/herself and about other as thinking beings. Second, Task variables, which refer to knowing that each different task requires different strategies. Third, strategy variables, which mean the knowledge

of different strategies (cognitive and metacognitive) one could use to enhance his/her performance and learning outcomes.

1.4.2 Brown's Model of Metacognition

Ann Brown (1987) made a distinction between two components of metacognition, knowledge of cognition (what do you know) and regulation of cognition (how to regulate what do you know). "What" corresponds to declarative, procedural, and conditional forms of knowledge and "how" to regulate it has to do with planning, monitoring, and evaluation strategies (Jiménez et al., 2009).

As attested by Schraw and Dennison (1994), knowledge of cognition refers to what learners know about themselves, about strategies, and about under which conditions these strategies are more appropriate and useful. "Knowledge about cognition includes three subprocesses that facilitate the reflective aspect of metacognition." (Schraw and Dennison, 1994, p. 460); these sub processes are declarative, procedural, and conditional knowledge. Schraw and Dennison defined declarative knowledge as "knowledge about self and about strategies." procedural knowledge as "how to use strategies." and conditional knowledge as "when and why to use strategies." (Schraw & Dennison, 1994, p. 460).

Moreover, "declarative knowledge refers to knowing "what" are the things; procedural knowledge refers to knowing "how" to do things; conditional knowledge refers to knowing "why" and "when" the strategies or procedures are appropriate." (You & Joe, 2001, p. 3). In this sense, declarative knowledge corresponds to knowing about one's self, about others, and about things; procedural knowledge corresponds to knowing how to do things; and conditional knowledge corresponds to why a certain strategy is adopted in that particular situation. Conditional knowledge is crucial since it guides learners through selecting suitable strategies for each task and in any given situation in an effort to promote regulation and control of their learning.

Regulation of cognition, as per Schraw and Dennison (1994), refers to how learners plan and monitor, and evaluate their learning; in addition to, implementing strategies and correcting comprehension errors. Alternatively stated by Nazarieh (2016), regulation of cognition refers to a set of regulatory skills and activities. Additionally, "metacognitive control and self-regulatory processes are cognitive processes that learners use to monitor, control, and regulate their cognition and learning." (Pintrich, 2002, p. 220). Regulation of cognition comprises three metacognitive strategies planning, monitoring, and evaluating. First, planning, which refers to selecting appropriate strategies and assigning suitable resources that would benefit learners' performance. "Students must be able to think and make conscious decisions about the appropriate learning strategies to be used when solving learning tasks." (Thamraksa, 2005, p. 96). Second, monitoring, which corresponds to verifying whether the strategies are being used or not. Third, evaluating strategies that mean evaluating the learning process and outcome, whether or not the strategies used are effective (Thamraksa, 2005).

Brown's model included two components of metacognition, knowledge of cognition and regulation of cognition. She claimed that the difference between the two is that knowledge of cognition remains consistent within individuals whereas regulation of cognition changes according to the situation and context. Knowledge of cognition according to Brown's model constitutes of three sub-components, which are declarative, procedural, and conditional knowledge. Furthermore, regulation of cognition comprises three sub-components as well, which are planning, monitoring, and evaluation.

1.5 Metacognitive Awareness

Within metacognition, there exists a number of fundamental interrelating concepts including metacognitive awareness (MA). "Metacognition is a multidimensional phenomenon." (Schraw 1998, p. 113). One of the major challenges in undertaking research about metacognition is the range of related concepts in the relevant literature referring to the same phenomenon; for instance, metacognition, metacognitive knowledge, learner beliefs,

consciousness-raising, and awareness raising (Ormeno Cardinas, 2009). Metacognitive knowledge is "what the person knows or believes about him/herself and the others as cognitive beings, their relations with various cognitive tasks, goals, actions or strategies as well as the experiences s/he has had in relation to them." (Efklides, 2001, p. 299).

Metacognitive knowledge includes two components: knowledge of cognition, and regulation of cognition. Knowledge of cognition refers to what learners know regarding themselves, strategies, and the conditions under which these strategies are most beneficial. While, regulation of cognition corresponds to knowledge regarding learners planning and monitoring, implementation of strategies, correction of comprehension errors, and evaluation of their learning process (Schraw and Dennison, 1994). Hence, metacognitive knowledge is the knowledge about learning; this knowledge "influences learners' approach to learning and the expectations they hold about the outcome of their efforts." (Wenden, 1998, p. 515).

This knowledge is concerned with the factors that can either facilitate or inhibit learning. According to Ormeno Cardinas (2009), learners acquire metacognitive knowledge throughout their own experiences as language learners. As attested by Flavell (1979), knowledge of cognition is a relatively stable and statable information, which is acquired either formally or informally, consciously or unconsciously. "Metacognitive knowledge has been classified according to whether it focuses on the learner, the learning task, or the process of learning." (Wenden, 1998, p. 518). These categories, according to Flavell (1979), are person, task, and strategy knowledge. Perfect and Schwartz (2002) claim that there is a distinction between metacognitive knowledge and metacognitive awareness; they defined the former as the explicit knowledge one has about his/her assets along with his/her limitations, the latter was defined as the feelings and experiences one has whilst carrying out a given cognitive process. Additionally, Ormeno Cardenas (2009) argued that metacognitive knowledge and metacognitive awareness

differ since the latter implies consciousness that the former does not necessarily include. Despite the fact that they are used interchangeably.

Additionally, Ellis (2000) has suggested the following types of metacognitive awareness: language awareness, cognitive awareness, social awareness, and cultural awareness. The Association of Language Awareness (ALA) defines language awareness as the explicit knowledge about language and the consciousness in learning, teaching and using language, additionally, Dufva (1994) defined it as individuals' sensitivity to the nature of language and its function in human life. Durmuşçelebi and Kuşuçuran (2018) suggested that cognitive awareness is the ability to regulate one's own cognition and to think critically. Whereas social awareness corresponds to being able to speak and explain one's self distinctly, understand body language, and express one's feelings appropriately, according to Csóti (2001). Moreover, cultural awareness is, as attested by Jackson (2011), recognizing and accepting one's values and others' values, one's beliefs and others' beliefs, one's attitudes and behaviors and others' as well. Jackson claims that appreciating differences, and not only tolerating them, is what gives meaning and value to the daily human life. Ellis (2000) agreed that the overlapping of cognitive and social skills in addition to the linguistic and cultural understanding would lead to positive attitudes and beliefs, confidence and motivation and in turn, result in the realization of learners' own ability to learn. Metacognitive awareness is often synonymous with metacognitive knowledge; nonetheless, some researchers have claimed a distinction between the two. Metacognitive knowledge is the explicit knowledge and beliefs an individual has of him/herself in terms of skills, strengths, weaknesses, and lacks. Whereas metacognitive awareness involves consciousness, which metacognitive knowledge does not necessarily encompass.

1.6 Metacognitive Experiences

Metacognitive experiences (ME) come second in order among the components of metacognition. According to Flavell (1979), researchers agree that a metacognitive experience refers to a learner's awareness and the feelings evoked whilst carrying out a given learning task.

Many metacognitive experiences are concerned with one's position as an enterprise, and with the progress one is making or is expecting to make. For instance, "You believe/feel that you have almost memorized those instructions, are not adequately communicating how you feel to your friend, are suddenly stymied in your attempt to understand something you are reading." (Flavell, 1979, p. 908). Efklides (2001) defines metacognitive experiences as what a person experiences through cognitive operations and activities whether ideas, beliefs, feelings, goals, or judgments.

In addition, Thamraksa (2005) believes that metacognitive experiences are one's subjective internal responses to one's own metacognitive knowledge, tasks, or strategies. Moreover, metacognitive experiences, especially, occur in situations where careful and highly conscious thinking is stimulated, in new and different situations where an individual should plan before and evaluate after (Flavell, 1979). Efklides (2001) argues that metacognitive experiences entail feelings; contrasted with metacognitive knowledge. Furthermore, the presence of feelings implies that what occurs over the cognitive operation is one's own personal and subjective experience, not something from the past, whether related to one's own experiences or from sources outside one's own self.

Flavell explains that feeling far from one's designed objectives is not a segment of metacognitive knowledge; however, the decisions one takes concerning this feeling is guided by one's metacognitive knowledge. Dufva (1994) argues that cognition and emotion synchronize and supplement each other throughout a learning process. Dufva (1994) also suggested that learning takes place due to a new stimulus to one's interest or to challenge, which incites learning.

Through metacognitive experiences, one can modify his/her metacognitive knowledge base by adding to it, deleting from it, or revising it. As claimed by Flavell (1979) metacognitive experiences can affect metacognitive knowledge; observing the relationships between

objectives, metacognitive experiences, and task outcomes then integrating these observations with the existing metacognitive knowledge; that is, adjusting knowledge according to the observations. Metacognitive experiences are concerned with feelings, judgments, ideas, realizations, and evaluations evoking throughout mental processes. They are personal and subjective. Metacognitive experiences is an important facet of metacognition since one's feelings are guided by one's metacognitive knowledge, and metacognitive knowledge might be influenced and modified by metacognitive experiences.

1.7 Importance of Metacognitive Awareness in EFL Teaching/Learning

A significant number of research proved that learners' metacognition could directly influence the process and the outcome of their learning as mentioned in Rahimi and Katal, (2012). Educators hope to help their students become aware and conscious of their learning; however, for them to do so, they need guidelines to clarify and explain the components and subcomponents of metacognition. "These guidelines should explicate separate subcomponents of metacognition (e.g., conditional knowledge, monitoring) as specifically as possible, and propose specific instructional interventions that improve these skills." (Schraw and Impara, 2000, p. 313). "Metacognition, however, is rarely made explicit to students. How often are they asked to examine their process of learning?" (Wiezbicki-Stevens, 2009, p. 8). Although several studies emphasized the necessity to raise students' metacognitive awareness; in fact, very few instructional programs actually do so. "There was strong agreement that any method is superior to no method at all!" (Schraw and Impara, 2000, p. 300).

Additionally, Nosratinia et al. (2014) stated that being conscious of how you learn would enable you to identify the most effective ways of doing so. Furthermore, they asserted that language learners do employ a variety of language learning strategies, consciously or unconsciously. These strategies lead learners to more knowledge and better understanding of the second/target language they are aiming to learn. Nosratinia et al. (2014) added that conscious thoughts and behaviors make the process of learning a target language personal.

Another benefit of metacognitive awareness in the context of language learning is that it helps learners describe how they acquire knowledge and what strategies they know and use, this would enable learners to realize what strategies they need to access, according to (Bransford et al, 2000, pp.14-18). Metacognitive strategies play a more significant role than other learning strategies in language learning, because the ability to regulate one's learning through strategies accelerates language learning (Anderson, 2003).

In order to use metacognitive strategies to promote their learning, learners are, first, required to be conscious and aware about themselves first and about their learning process. "Strategic language learners possess metacognitive knowledge about their own thinking and learning approaches, a good understanding of what a task entails, and the ability to orchestrate the strategies that best meet both the task demands and their own strengths." (Chamot, 2004, p. 14). Self-consciousness, knowledge about one's self, awareness of one's strengths and weaknesses provides learners with better understanding of learning; what is required from them and what do they need in order to accomplish their objectives and goals.

Metacognitive awareness, consecutively, would promote successful and proficient language learning. One of the key findings mentioned by Bransford et al. (2000) in their book How people learn: Brain, mind, experience, and school, asserts that applying a metacognitive approach in instruction would enable learners to take control of their learning; through identifying their learning goals and monitoring their progress in accomplishing those goals. The findings pinpointed in the book "have both a solid research base to support them, and strong implications for how we teach." (Bransford et al., 2000, p. 14). For good measure, metacognitive awareness entail a number of influencing factors, one of them is self-efficacy, which helps learners gain confidence which would, correspondingly, raise autonomy, according to Nosratinia et al. (2014). Numerous investigations and findings have proven that implementing metacognitive strategies and developing learners' metacognitive awareness significantly enhanced learning

effectiveness and proficiency. Thus, it is necessary that learners become more exposed to metacognition, and that they develop conscious awareness of themselves, of their learning processes, and of the environment around them.

1.8 Metacognition and Creativity

Despite the controversy on the nature of connection between metacognition and creativity, relevant literature have indicated significant positive correlation between the two. Amabile (1983) argued that creativity could be regarded as a metacognitive process given that merging cognitive knowledge with the evaluation of behaviors and actions precipitate creation. More precisely stating, creativity requires factual knowledge and other skills, and encompasses a set of cognitive processes such as transforming of knowledge into new forms, and verifying products (Amabile, 1983). The success of any creative action requires consciously selecting relevant prior knowledge, implementing a strategy or following a certain method, constantly monitoring the work plan and adjusting it, and evaluating the originality and usefulness of products. All the previously mentioned functions are metacognitive in nature; henceforth, the use of these strategies would likely develop creativity (Armbruster, 1989).

Furthermore, Antonietti (1997) claimed that creativity is a mental skill, which children would learn through appropriate instruction and sufficient practice. He suggested a number of instruction techniques teachers should use in order to expand children's creativity. One of the techniques he suggested was demonstrating metacognitive sensitivity, "The lessons should help students select, execute, and monitor the application of a strategy." (Antonietti, 1997, p. 73). The process of creation involves conscious awareness of the knowledge one possesses, careful planning and monitoring, and evaluating the product or outcome in terms of originality, novelty, uniqueness, and usefulness. However, there is not yet any inclusive evidence that metacognitive awareness is in fact associated with creativity.

Plenty of previously conducted studies and investigations confirm a positive and significant relationship between metacognition and creativity. In addition, according to the creative cognitive approach, relevant literature on creativity often claimed that creativity is a result of cognitive functions and processes. For instance, de Acedo Lizarraga and de Acedo Baquedano (2013) conducted a study on 360 female and male students investigating possible associations between metacognition and verbal and graphic creativity; in addition, they examined the effect of gender on those variables. de Acedo Lizarraga and de Acedo Baquedano (2013) used the Adult Creative Imagination Test to measure verbal and graphic creativity, and the Creative Metacognition Scale to evaluate the two dimensions of metacognition: knowledge of cognition and regulation of cognition. They reported that metacognitive skills could enhance creative actions and that creativity could benefit metacognitive skills. As attested by de Acedo Lizarraga and de Acedo Baquedano (2013), the positive correlation demonstrates that the variables are reciprocally promoting each other concerning verbal creative potential in particular.

Abdivarmazan et al. (2014) used experimental research method to scrutinize the effect of training metacognitive knowledge on creative problem solving. The participants were divided into an experimental group and a control group. The experimental group, which received metacognitive strategy knowledge training showed significant increase in creativity. Additionally, Jia et al. (2019) in their review of the role of metacognitive components in creative thinking, which entailed metacognitive knowledge and creative thinking, metacognitive experiences and creative thinking, metacognitive monitoring and control and creative thinking, as well as neurophysiological evidence of the relationship between metacognition and creative thinking. Collected findings in their review were an evidence that there is an association between metacognition and creative performance, and the reported results of several studies proved that developing metacognitive knowledge promotes creativity. The above-mentioned findings agreed that there is a possible correlation between metacognition

and creativity since creativity is a cognitive process requiring conscious awareness of one's self and one's mental processes.

Nevertheless, some empirical studies have confirmed a negative correlation between metacognition and creativity. Preiss et al. (2016) noted that there were no significant correlation between creativity and the students' self-report of metacognition. They used the self-reporting scale to measure students' declarative strategic knowledge about planning, monitoring, and regulating, and they used the AUT (Alternative Uses test) and the Compound Word Association task to measure creative thinking. Results displayed that creativity, unexpectedly, did not correlate with metacognitive knowledge. In addition, Preiss et al. (2016) indicated that the self-report method might not accurately reflect the metacognitive knowledge about planning, monitoring, and regulation of metacognition for students who are not aware of their abilities. Similarly, Jia et al. (2019) claimed that measuring metacognitive knowledge through self-report approach might not be reliable and valid since incompetent learners are bond to exaggerate their self-assessment because of their inadequate analytical skills.

Furthermore, Hong et al. (2016) compared two types of instructions related to creativity regarding their effects on metacognitive strategies, intrinsic motivation, and creative performance. In order to increase the precision of tests results, Hong et al. (2016) tested the links between the variables separately for two creative performance markers, fluency/flexibility versus originality. The first type of instruction was standard; participants were asked to "think of ways to create a comfortable living environment. Suggest as many ideas as possible." The group instructed standardly showed better results concerning fluency/flexibility. As per Hong et al. (2016), the standard instruction encouraged students to write varied and various ideas without aiming for a particular criterion. Whereas the group that received explicit instruction had a positive effect on creative performance with regard to originality, but not fluency/flexibility. They suggested that these findings advocate previous works concerning the

different effects of different instruction types on different indicators of creative performance, Hong et al. (2016) explained that this might be attributable to "characteristic differences in fluency, flexibility, and originality when individuals process creative solutions with the purpose of producing fluent, flexible, or original solutions in mind." (Hong et al., 2016, p. 41). A number of studies exploring the relationship between metacognitive awareness and creativity have confirmed negative correlation between the two. Research regarding this issue is reporting mixed results; some prove positive correlation and some report a negative one. Therefore, the relationship between metacognitive awareness and creativity is controversial. Understanding as complex notions as metacognition and creativity requires thorough investigations as a first step in the process of exploring possible associations between the two. Thus, further in-depth research is required in order to comprehend the core of these two concepts, their components, and different facets.

Conclusion

Successful and fruitful learning requires consciousness. Learners who deliberately activate their higher order cognitive mechanisms shift from the traditional unconscious process of learning to a conscious metacognitively aware learning. Metacognitive awareness indicates a high level of responsibility, mindfulness, and attentiveness. Numerous research have proven that language learners who possess metacognitive skills tend to be more proficient and successful. Successful language learners are aware of themselves, aware of the others, and of the environment around them; in addition, these learners question their learning, monitor it, and always seek to adjust and progress. Hence, EFL teachers and learners recognize the significance of developing metacognitive skills and implement metacognitive strategies in the language learning activities. Nevertheless, the complex nature of metacognition and the dispute about measuring it pose challenges for researchers in the field and language teachers.

Chapter Two

Creativity

Chapter Two: Creativity

Introduction

2. 1 Defining Creativity

2. 2 Components of Creativity

>　**2. 2. 1 Domain-relevant Skills**

>　**2. 2. 2 Creativity-relevant Skills**

>　**2. 2. 3 Task Motivation**

>　**2. 2. 4 Social Environment**

2. 3 Gender Differences in Creativity

2. 4 Importance of Creativity in Education

2. 5 Fostering Creativity

2. 6 Teachers' Beliefs on Creativity

2. 7 Creativity in Foreign Language Learning

Conclusion

Introduction

For a product to be judged as creative, it ought to be novel, original, unique, appropriate, and useful. Creativity is indisputably important, compelling, and distinguished; however, that is merely theory. The question is where and how this interest is depicted and practically realized. Since 1950s, different scholars have searched for the definition of the term "creativity", for features of creative individuals and products, and for ways that this creativity could reflect humans and be beneficial for them. A plethora of research has been conducted to investigate the importance of including creativity in education. As a consequence, education systems, universities, and schools around the globe are witnessing a revolution and renovation since policy makers and authorities admitted that this fast changing and unpredictable world necessitates flexibility, open-mindedness, and creative problem solving. This chapter entails two parts, theoretical notions and perceptions on the nature of creativity, its components, and gender differences in terms of creative potential and performance. The second part discusses the link between education and creativity: the importance of creativity in education, the importance of fostering learners' creativity; in addition to, various and varied teachers' beliefs about this notion and the relationship between creativity and foreign language teaching and learning.

2.1 Defining Creativity

Creativity (Cr) is multidisciplinary; its involvement expands from psychology, arts, and science to economy, technology, and agriculture. Throughout the history of theory and research on creativity, scholars and researchers suggested various definitions of this concept. "Creativity is a quality which manifests itself in many different ways, and this is one of the reasons it has proved so difficult to define." (Maley, 2015, p. 7). Therefore, it is unquestionable that the definition would differ from a domain of research to another and from one aspect of life to another. Guilford (1950), argued that creativity is characterized regarding the abilities of creative people. Current definitions of creativity are in terms of the observable outcomes of a

response. It is agreed that for a product or a response to be judged as creative, it has to be new and original, yet most importantly it has to be of value and benefit. Amabile (1983) stated that creativity is principally defined with regard to the creative process, the creative person, and the creative product. Weisberg (1993) emphasized that novelty is not enough, creative products has to be of value to the cognitive demands of the situation. According to Maley (2008), a creative work besides from being novel, it also ought to be relevant, practical, and accepted within the domain in which it occurs.

Amabile (1983) suggested that research on creativity requires two types of definitions conceptual definition and an operational definition. The conceptual definition is crucial to comprehend the meaning of the concept, and the operational one is crucial to measure it. Amabile (1983) claimed that the conceptual definition is based on two sets of requirements. First is that creative products ought to be novel, correct, convenient, useful, and valuable to the task being carried out. Second, the task in hand has to be heuristic and not algorithmic. Algorithmic tasks are those with a single and obvious solution, while heuristic tasks do not have an immediately identifiable specific way to the solution, they are open ended. Furthermore, the operational definition of creativity implies that the creativity of products or observable responses is evaluated by appropriate observers, "Appropriate observers are those familiar with the domain in which the product was created or the response articulated" (Amabile, 1983, p. 359).

Robert (1993) defined creativity as the tendency to produce or identify different possibilities and alternatives that might be convenient in daily life communication, solving problems, and entertainment. Simonton (2000) stated that creativity is often viewed as an indication of emotional and mental health; he claimed that it is a mental phenomenon stemming from ordinary cognitive functions. Whereas Read (2015) referred to creativity as thinking "outside of the box". Divergent responses, original ideas and objects, new ways to look at

problems and solve them are all forms of creativity according to Read (2015). "Creativity refers to the singularly complex human capacity to produce novel ideas, generate new solutions, and express oneself in a unique manner." (Abraham, 2016, p. 609). Abraham (2016) agreed that creativity is evident in all aspects of life; it is demonstrated through the uniqueness of humans' language, communication, and choices.

There is a popular assumption claiming that creativity is a dichotomous trait, which means an all-or-nothing entity. As attested by Amabile (1983), this view assumes that an individual is either creative or not creative. However, another less popular assumption proposing that it is theoretically possible for all individuals with normal cognitive abilities to be creative. Antonietti (1997) claims that creativity is a special mental skill, which children can develop and expand through instruction and practice. "Children will learn to think creatively if they simply perform a specific mental operation a number of times. In other words, practicing a skill is sufficient to allow children to learn it." (Antonietti, 1997, p. 73). Albeit they would not be sufficient singularly for a high level of creation to occur, instruction and training in cognitive skills are necessary. Thus, creativity is a learned skill, not a gift of some children, only.

Researchers have concentrated merely on a personality approach to creativity rather than a cognitive-abilities approach. Amabile (1983) claimed that creativity is best conceptualized as a product of specific compositions of personal characteristics, cognitive abilities, and social environment; therefore, creative products are explained via a model that encompasses all the three factors previously mentioned. In addition, "The extent to which we are creative is contingent on context" (Perry and Collier, 2018, p. 33) this means that external factors, setting, and the overall social environment in which an individual exist have a direct effect on that individual's creative performance. O'Flynn-Magee et al. (2021), similarly, claim that creativity is determined by and contingent to a particular socio-cultural moment in a particular time and

space, and pertain to a particular history and relations. This would lead to considering how students, cultures, and contexts might influence the construction and implementation of creative effective teaching and learning strategies.

Since there is no generally accepted definition of creativity, one should be clear about which approach to view the concept from, which in this case is creativity in educational contexts. The purpose of "Creative Education", as mentioned by Schlesinger (2007), is to enable learners to produce original ideas and attitudes. Moreover, "a creative approach to language teaching is an approach that presents creativity as one of our many innate skills, a talent that every person and every language learner has." (Stepanek, 2015, p.98). This approach emphasized that all learners have the potential to be creative in different degrees and forms. Stepanek (2015); furthermore, argued that it is the teacher's role to stimulate students' creativity.

In the context of language learning and teaching, research have attempted to characterize creative language teachers and creative language learners with a set of specific qualities. Richards (2013) summarized results of interviews he conducted with English language teachers about their creative philosophies in teaching. Richards (2013) collected over twenty qualities of creative teachers, among which he emphasized: creative teachers personalize their learning space and lesson content, they are confident, non-conformists, risk takers, and reflective. In addition, creative teachers focus on learners as individuals and attempt to connect the learning experience with learner's real life experiences. On the other hand, Kurose (2019) agreed that creative language learners are heuristic and motivated; in addition, creative language learners use language items in contextualized situations, and deduce and create meaning according to a certain experience or situation; as a result, learners become more original. Creativity is essential in language learning because language requires originality in communication; thus, one of the characteristics of good language learners should inevitably be creativity.

2.2 Components of Creativity

In line with the previously mentioned definition of creativity denoting that works or responses considered creative are what appropriate observers judge as creative (Amabile, 1983). According to Rennick and McKay (2018) Amabile's componential model for creativity, which she proposed in 1983, included three necessary components of creativity, domain-relevant skills, creativity-relevant skills, and task motivation. This componential theory was updated later on. Amabile (2012) suggested four components of creative performance, which were presented as necessary factors for the production of creative works or responses. The three intra-individual components influencing creativity are domain-relevant skills, creativity-relevant skills, and task motivation in addition to, an external component, that is the social environment.

Domain-relevant skills were defined as "expertise in the relevant domain or domains." creativity-relevant skills as "cognitive and personality processes conducive to novel thinking", and explained task motivation as "specifically, the intrinsic motivation to engage in the activity out of interest, enjoyment, or a personal sense of challenge." (Amabile, 2012, p. 357). Amabile's (2012) componential theory emphasizes that all components ought to confluent. More clearly stated, creativity occurs when an essentially motivated individual has high domain and high creativity skills, and works in an environment that encourages creativity.

2.2.1 Domain-relevant Skills

Within the componential framework of creativity, the first component is domain-relevant skills, which is regarded as the basis from which any performance must progress. They entail factual knowledge, technical skills, intelligence, talent and expertise in the specific domain where the problem-solver is working. According to Amabile (2012), this component comprises elements and raw materials that could be combined to create possible response, as well as the skills that enable individuals to judge the practicality of those responses. These skills

are based on competencies and special talents in domain work. (Wang & Tsai, 2014). Maley (2015) referred to domain-relevant expertise as the "familiarity with a given domain of knowledge" (p. 8). An individual's domain-relevant skills entail the knowledge about their own competencies, their talents, their skills, and knowledge about the domain of expertise, and about the task in hand. This knowledge is the basis on which creative performance is built.

2.2.2 Creativity-relevant Skills

Creativity-relevant processes include an individual's cognitive style and personality features that has nothing to do with the individual's prior knowledge and expertise. These skills contribute to and assist independence, and make individuals take risks and look for new paths so solve problems. Amabile (2012) explained that these cognitive processes are responsible for directing individuals' ability to think and perform flexibly, yet in a disciplined working style. These skills are associated with the tendency to search for and adopt new point of views, new techniques, and to explore new working styles (Wang & Tsai, 2014). "The ability to break free of 'performance scripts' – established routines, to see new connections" (Maley, 2015, p. 8). Moreover, Creativity-relevant processes, as maintained by Rennick and McKay (2018), encompass both cognitive skills and personal qualities. Cognitive skills are those concerned with heuristics and strategies used to carry out a given task, whereas personal qualities are the individual's characteristics assisting him/her in the process of problem solving such as sustained attention, patience, and persistence.

2.2.3 Task Motivation

Task motivation is, in simple words, about passion, the intrinsically passionate individual carries out a task or solves a problem because it personally interests, satisfies, or challenges him/her not because he/she is motivated by competition or rewards. As claimed by Amabile (2012) "People are most creative when they feel motivated primarily by the interest, enjoyment, satisfaction, and challenge of the work itself and not by extrinsic motivators." (p.

358). Wang and Tsai (2014) noted that intrinsic motivation is a "personal sense of curiosity, enjoyment, and involvement at work" (Wang & Tsai, 2014, p. 317). In addition, it is believed that task motivation is "based on attitudes, intrinsic motivation, extrinsic constraints and rewards." (Maley, 2015, p. 8). Consequently, task motivation reflects individuals' motives and incitements for carrying out a certain activity or task.

2.2.4 Social Environment

The work environment or, more generally, the social environment entails the extrinsic motivators and all environmental factors that, respectively, sabotage the intrinsic motivators and hinder intrinsic motivation, which in turn, impede creativity. (Amabile, 2012). In a work setting; for example, harshly criticizing novel and unusual ideas is a work environment factor that would block creativity. This external component of creativity is able to interfere with every within-individual component. For instance, Karakaya and Demirkan (2015) noted that extrinsic motivators weaken creative performance. Nevertheless, there are factors that positively challenge the creative behavior of individuals (Amabile, 2012). Positive social environmental factors would include, team work collaboration, positive competition, freedom to develop new ideas, in addition to support and recognition for creative work. The socio-environmental factors in learning include "peer influence, the teacher's character and behavior, the classroom climate, family influence, life stress, the physical environment, degree of choice offered, time, the presence of positive role models and the scope for play in the environment." (Maley, 2015, p. 8). Mastering control over factors influencing creativity in learning enhances the quality of creative accomplishments.

Teresa Amabile was the first to introduce the componential theory of creativity in 1983, named "The componential model of creativity." The above-mentioned components of creative product including domain-relevant skills, creativity-relevant skills, task motivation, and the social environment influence the creative process and shape creativity effort.

2.3 Gender Differences in Creativity

Throughout history and in many cultures, there has been a marked prejudice against women concerning creativity. Women were not believed to be creative; more precisely, they were not permitted to be creative. According to Stephens et al. (2001), girls are traditionally expected to conform, whereas boys are expected to take risks. Even when history has favored men, there were eminently creative women. Research on gender differences concerning creative performance should emphasize the role of opportunity, as agreed on by Runco et al. (2010). It is of paramount importance to distinguish between creative potential and creative performance in the issue of creativity and gender differences (Runco, 2007). One shall not judge an individual or a group of individuals as unable to create, if they are not granted the chance to do so in the first place.

Expecting women to be creative and; thus, supporting and acknowledging their creative products is the core of the problem concerning opportunities, in addition to career alternatives and plentiful resources. Women and men view success differently, so "both inter- and intrapersonal expectations and judgments are relevant. If women are held to a masculine standard of creative success, many women's contributions will not be fully appreciated" (Runco et al., 2010, p. 344). For a creative person to make a product of high degree, he/she is supposed to put resources to good use and develop his/her performance. Creativity as a hidden raw potential alone does not result in creative achievement.

The criteria used to identify creative individuals or the criteria used to measure creative products poses a challenge in research about gender differences in creativity. People exhibit creativity in various and varied styles; therefore, the criteria through which a product is judged as creative or not cannot be a static fixed criteria. Creativity could be demonstrated throughout all aspects of the daily life. Torrance's (1995) adult creative achievement questionnaire included performing in plays, paintings, publications and other types of creative achievements.

Nonetheless, when put in test of validity, participants have declared that they did not express creativity in a typical traditional way, rather in their lifestyles. For instance, feedback he received included decorating homes, inventing new recipes, participating in volunteer reforms, among other types of creative performance. Most of those participants were women. Torrance; hence, added the criterion measure 'creative style of life achievements', which examines the ways people express themselves in the natural environment. Consequently, identifying and measuring creativity ought to take into consideration gender differences, since women and men do not demonstrate creativity similarly.

The existence of differences in creative accomplishments is recognized; however, the efficiency of tests measuring creative and divergent thinking is debatable. Empirical findings have shown that there are studies confirming that women and girls scored higher in creativity tests; contrastingly, there are studies stating that men and boys scored higher than women and girls. Moreover, Stephens et al. (2001) pointed out that numerous examinations of gender differences in creativity have proved girls' superiority. Baer and Kaufman (2008) argued that research exploring gender differences through creativity tests' scores did not ascertain consistent patterns of the dissimilarities, and only few have, in fact, discovered any differences. In addition, they argued that creative ability among both women and men is relatively equal, regardless of differences in terms of creativity patterns and the dissimilarities in areas of strengths (Baer & Kaufman, 2008). Similarly, Runco et al. (2010) agreed that differences in actual performance does not necessarily indicate differences in potential.

From another standpoint, Tsai (2013) claimed that, in fact, there are gender differences in creative performance, a result of a study undertook on adult participants using the Consensual Assessment Technique (CAT). Abraham (2016) reported that almost half studies found no significant differences, while the other half showed contrasting results yet the overall suggested female dominance. Research on gender differences in creativity is highly controversial, and the

findings associated with this area of research were inconsistent. However, research on this matter increases awareness about differences in patterns and areas of strength in creativity among women and men, helps clarifying facts to avoid the stereotypically masculine bias, and it makes people recognize the creative accomplishments women would offer.

2.4 Importance of Creativity in Education

It is conventional that society, school, and the workplace likewise underestimate the significance of creativity; thus, they squander it, gradually. Different educational systems around the world are encouraging learners to grow out of creativity and not into it. Kaila (2005) stressed that schooling is killing creativity. In addition, Robinson (2009) stated that, unfortunately, education systems are not courageous enough to embrace creativity; consequently, talented and creative individuals would believe they are not so because the school system or the teachers disregarded the things they are good at, or worse; stigmatized them. Typically, teachers would associate creativity with stubbornness, imprudence, disobedience, and peculiarity (Moran, 2010). Beghetto and Kaufman (2014) claimed that teachers believe creative learners are also disruptive learners. Teachers cannot nurture their learners' creativity if they are fearful of making mistakes and taking risks. Furthermore, "you are creative" is the best compliment one can ever receive, as per Sawyer (2011). However, "there's one place that seems not to welcome creativity: the classroom." (Sawyer, 2011, p. 389). In addition, Sawyer (2011) pointed out that teachers would prefer conformity simply to maintain control over their learners. Although certain teachers would appreciate and encourage creative behavior, the curriculum and the administration might be too strict. Nonetheless, creativity researchers are aspiring for more inclusion of creativity in educational settings.

Recently, attempts to develop learners' creative skills upsurged, and educational systems around the world are considering creativity as a fundamental element in their curriculums and a fundamental life skill. Education systems are required to undertake a major

renovation in terms of attitudes and understanding in order to hold creative practices in higher estimations (Turner-Bisset, 2007). Nowadays, creativity is as important in education as literacy (Robinson, 2006). Scholars agree that school systems are supposed to stop segregating, suppressing, and squandering learners' capacities and potentials. Classrooms ought to be revolutionized; therefore, as attested by Shaheen (2010), developed countries like Japan, Canada, the USA, the UK, South Korea, Germany, Sweden, Singapore, and China emphasize the importance of creative thinking in education; thus, their educational systems are attempting to foster creativity at different educational levels. Dissimilar to the developing countries, the developed countries prioritize fostering creativity (Shaheen, 2010). Creative learners are agreed to be independent, confident, healthy, and successful.

It is agreed on the fact that creativity is not irrelevant in education contexts, despite the fact that most education systems around the world are not concerned about nurturing and fostering their learners' creativity. There is a common accord among creativity researchers and educational psychologists that creativity enhances learning. Craft (1999) argued that education systems should foster learners' creativity from the early years. Correspondingly, research on creativity affirms that creativity benefits from and improves learning, different from the common belief that creativity is detached from learning (James, 2015). Many studies and examinations assert that creativity equips learners with numerous benefits and advantages. According to Runco (2007), in order to survive in this unpredictable world, individuals ought to think unconventionally. Creative learners are better problem solvers because they respond better to the new learning challenges, which require atypical ways of thinking (Sawyer, 2011). Inggårde (2014) claims that creative learners are flexible, imaginative, and innovative learners, and they are critical thinkers.

Maley (2015) attested that allowing learners to be creative motivates them; in addition, creativity increases their self-esteem, confidence, and self-awareness, which would make

learners more committed and competent. "When we are exercising our creative capacities we tend to feel more ourselves, and more alive." (Maley, 2015, p. 9). Cho et al. (2017) undertook a study exploring Prekindergarten educators' perceptions about the value and importance of creativity education. They reported that the educators were aware of the importance of nurturing creativity in classroom, and they were aware of their role in developing children's creativity. Morar et al. (2020) agreed that creative imagination and rich vocabulary promotes learners' writing. In addition, developing creativity helps learners generate new and unique solutions to problems, and prepares them for "unforeseen communication situations" (Morar et al., 2020, p. 221). Educational psychologists maintain that creativity does not benefit learning only; it also contributes to achieving a happy fulfilling life. Alsahou (2015) declared that developing learners' creative performance contributes to humanity's capacity to cope with the modern world challenges. Creativity serves more than just personal intellectual satisfaction; creative learners are creative members in their families, societies, institutions, and workplaces. Creativity serves for the development of individuals, of societies, and of nations.

2.5 Fostering Creativity

In past times, it was believed that creative people are born creative, and that creativity as characteristic of eminent people, it cannot be promoted or fostered. Recently, it became widely agreed that creativity is no longer limited to occasional works of art and outstanding achievements, rather about the everyday life achievements. According to Antonietti (1997), creativity is a cognitive process; hence, in order to be creative, learners should activate particular mental operations and perform them a number of times. In other words, creativity could be trained and taught. Additionally, "men and women frequently produce effective novelty in fine arts, the sciences, the humanities, handwork, and so on." (Cropley and Cropley, 2009, p. 263). They argued that rejecting "the born-not-made approach" to creativity does not necessarily indicate that everyone is a creative genius; however, it means that even ordinary

people in ordinary settings are able to produce novel and original creations in accordance with their level of knowledge, skills, and experience.

Despite the controversy concerning whether creativity is a gift or a learned skill, research has been exploring the possibility of fostering individuals' creativity and investigating ways to do so. As per Cropley (2001), creativity was recognized as incapable of being promoted due to its enigmatic and complex nature. Similarly, Tan et al. (2016) questioned, "Can creativity be taught? Does creativity develop over time? How can creativity be assessed?" (Tan et al., 2016, p. 1-2), they argued that these questions are still unanswered due to the complex nature of creativity. Nonetheless, there has been a growing interest regarding the significance of creativity in education. Lin (2011) listed a number of training programs designed to promote creativity, including the six thinking hats (a thinking tool developed by Edward De Bono (1987)) and the CPS (the Osborn Parnes Creative Problem Solving process). Additionally, Lin (2011) stated that the implications concerning nurturing creativity could be examined through three facets, teaching, environment, and teacher ethos. The first aspect is concerned with techniques used to stimulate and foster learners' creativity. The second concern is about providing a supportive environment, which motivates creative performance and values innovative accomplishment. Third, teacher ethos is about the tolerance, flexibility, and acceptance. Teachers are supposed to value learners' creativity and independence and sustain an open attitude towards their learners' ideas and behaviors.

In order to survive, humans ought to challenge themselves and to be creative. Thinking and living in static terms is irrational in such rapidly changing world and environment; therefore, nurturing creativity through education is a necessity. Zhu et al. (2013) noted that learners are not expected to benefit from the same teaching approaches and contents over the years. Teaching and learning approaches has to be renovated in order to attract learners' interests and fulfill their needs. Without creativity, teaching is nothing but imparting knowledge

and facts, and learning is merely memorization. Ferrari et al. (2009) declared that non-creative learning favors memorization over understanding.

In addition, Understanding is creating meaning, just as creativity is. Hence, creativity is a crucial aspect in learning (Craft, 2005). Both creative and non-creative learning are crucial; learners require fundamental knowledge and skills before they are able to create. "Creativity and innovation in education are not just an opportunity, but a necessity." Ferrari et al. (2009, p. 15). Creativity is of paramount importance in the classroom since it emphasizes learners' active role in constructing meaning basing on creative and non-creative instruction. Alsahou (2015) claimed that it is futile to search for a number of talented and gifted minority; education ought to provide opportunities to all learners equally, to support, and to guide them to be creative. Creativity gives meaning to learning, which in turn would provide purposes for students to learn, along with making learning more effective and dynamic.

2.6 Teachers' Beliefs on Creativity

Teachers' beliefs and viewpoints concerning creativity differ, some support the inclusion of creativity in classroom setting and some other believe it would encourage disruption, whereas some teachers believe creativity is expected exclusively in arts, music, and literature. Even when teachers theoretically accept and encourage creative behavior, they do not tolerate boldness and independence, and would not allow their students to produce something new and original and work with it (Cropley, 2001). Teachers expect their students to obey them, respect their ideas, and conform to their methods. Ferrari et al. (2009) argued that learners' role in formal education settings is "a recipient" of knowledge and pedagogies; therefore, their contribution is limited. However, Baucus et al. (2008) suggested that practitioners should adopt organizational designs and protocols that foster both ethics and creativity, they also emphasized that research on creativity must not value creativity and marginalize ethics.

Moreover, Alsahou (2015) indicated that several teachers associate creativity with the arts and others recognize its importance, yet it is not included in their pedagogies. Alsahou (2015) believed that connecting creativity solely with the arts is a misconception. Teachers who expect creative products from literary or artistic contexts are not likely to expect creative outcomes from domains like mathematics and science (Diakidoy & Phtiaka, 2002). In addition, Diakidoy and Phtiaka (2002) argued that teaching practices and evaluation depend on the teacher's belief about whether creativity is domain-general or domain-specific. Teachers who theorize creativity as domain-general look for creativity within different outcomes in different situations, they believe creativity is a general ability; whilst, the practices of teachers who believe creativity is domain-specific differ according of the specificity of the domain.

Bereczki and Kárpáti (2018) have synthesized the findings of 53 studies on teachers' beliefs concerning three aspects. Teachers' beliefs about the nature of creativity, teachers' beliefs about creative individuals, and teachers' beliefs about the creativity-fostering classroom environment. The First aspect summarized teachers' opinions concerning the distribution of creativity, Bereczki and Kárpáti (2018) argued that teachers' generally believed that every individual could be creative; however, they agreed that a certain minority are born so. Furthermore, findings regarding the malleability of creativity reported that most teachers believed that creativity could be enhanced and it could be manifested and applied to any domain of knowledge. Moreover, Bereczki and Kárpáti (2018) stated that most teachers emphasized originality and novelty or as criteria to judge creative outcomes, and only few of them recognized the necessity of appropriateness and usefulness in their judgment.

The Second aspect discussed the characteristics of creative students. According to teachers, although creative students are hard to be identified; creative students are often autonomous, confident, imaginative, and divergent and critical thinkers. Whereas characteristics of creative teachers included determination, self-directedness, open-mindedness,

and empathy. The third aspect addressed creativity-fostering classroom environment. Bereczki and Kárpáti (2018) indicated that teachers value creativity and the majority believed themselves to be capable of fostering their learners' creative performance. Additionally, they believed that creative teaching and teaching for creativity are crucial principals in a classroom that supports creative performance.

Nevertheless, a number of studies reported barriers to fostering students' creativity. Bereczki and Kárpáti (2018) noted that the obstacles often cited in the literature involved lack of time and training, overloaded curriculum, insufficient resources, standardized testing, and difficulties in assessing creativity. "Findings across the studies suggested that teachers perceived considerably fewer enablers to nurturing creativity in the classroom than barriers." (Bereczki & Kárpáti, 2018, p. 38). They (2018) systematically synthesized and reported findings of numerous previous studies concerning teachers' beliefs about creativity with regard to its nature, characteristics of creative individuals, and factors enabling and factors hindering fostering creativity in the classroom.

Teachers' attitude and behavior influence their students' creative performance; it might encourage students to express their creativity, as it might demotivate them. Teachers' attitude might be either facilitative or inhibitive, if the teacher expects his/her students to perform creatively and encourages them to, students might perform very well. However, if the teacher is not supporting his/her students' creative behavior and is not valuing it, students' creativity would be diminished and squandered. "Expectations are probably especially critical for the development of creative skills." (Runco et al., 1993, p. 92). Cropley (2001) insisted that teachers are required to promote flexibility, novelty, and originality because, merely, transmitting knowledge and facts to students becomes useless with time.

In addition, and since being creative involves taking risks and searching for new and alternative ways to solve unexpected problems, the rigid pedagogies and content will be

obsolete when unpredicted problems occur in the future. Chan and Yuen (2014) suggested that teachers' personal characteristics and their pedagogical skills might be factors that promote students' creativity; for instance, intelligence, commitment, flexibility, tolerance, and individualism. Since teachers have a substantial role in nurturing and fostering learners' creativity, their influence ought to be positive; teachers are supposed to motivate their students to be creative, and they have to value their products and accomplishments.

A number of researchers have set certain characteristics that mark teachers with innovative teaching attitudes. Cropley (2001) demonstrated characteristics of creativity fostering teachers; they give importance to factual knowledge, they have a socially integrative style of teaching, they encourage self-evaluation and independence. In addition to using different materials under various circumstances, helping their learners manage stress and failure, and rewarding courage students and not only right students. Zhu et al. (2013) summed a set of activities performed by teachers, which they referred to as "innovative teaching"; these activities are to facilitate active learning, stimulate learners' creativity, and improve learning effectiveness. For instance, using new and varied ideas, methods, and strategies as well as being sensitive to students' individualistic conceptions of themselves. "Instead of passively 'absorbing' the knowledge, students should be actively involved in the learning processes, participate and collaborate in real learning situations, and work on authentic learning tasks." (Zhu et al., 2013, p. 14).

Teachers have to welcome creative efforts and encourage individualism. Classroom activities that might motivate creative performance include providing sufficient time for creative thinking, allowing students to ask questions and make suggestions, tolerating mistakes, encouraging students to take risks, and rewarding learners' creative accomplishments (Alsahou, 2015). On the other hand, Alsahou (2015) noted that teachers ought to avoid aspects that emphasize the teacher's dominance such as, over constraining students, stress, evaluation, and

competition as factors. These factors hinder creative behavior and discourage learners to express themselves and in worst cases demotivate them to learn.

2.7 Creativity in Foreign Language Learning

Opposed to what is believed by many, creativity is not something odd in the classroom setting, and especially in a language classroom. Language itself is a creative system; Adger (2019) claimed that every sentence people construct almost never reoccur since humans use language in a rich, flexible, and an incredibly creative way. Carter (2004) stated that linguistic creativity is an important part of learning and using a language; however, it is often taken for granted. Additionally, individuals are being creative in the daily basis and throughout different simple or complicated tasks; Fehér (2015) argued that people combine elements of language to create new constructs and utterances in order to express their own original thoughts, opinions, and decisions. Thus, creativity is not for special days nor for a special minority of individuals. Tomlinson (2015) noted that fostering creativity is a central and critical role for any teacher, and it is even important and necessary for a second or foreign language teacher. Creativity helps learners engage affectively and mentally in the process of learning a language; in addition, it enables learners to understand how language is used in natural settings and, in turn, helps them use language to communicate effectively (Tomlinson, 2015). According to Ševečková (2016), creativity is associated with positive approaches to foreign language teaching and it is an essential part of pedagogy.

Creativity has a vital role in foreign language teaching and learning; it is accepted that creativity gives meaning to language; therefore, this provides learners with awareness and understanding of what they are learning and why they are learning it. "Learning in a creative way is certainly a form of meaning-making." (Ferrari et al., 2009, p. 20). In recent teaching and learning pedagogies, learners are considered to be more than mere recipients of knowledge and information, but rather contributors to the learning process. Language learners have an active

role in the process of producing knowledge and meaning; they participate in the classroom by sharing their expertise, experiences, and opinions (Ferrari et al., 2009). As attested by Wright (2015), language teachers ought to be "Event-makers"; they are supposed to create situations and events that motivate learners to engage in and; thus, learn the target language for purposes that interest them and meet their learning needs.

Consequently, English language would be meaningful and memorable, and learners would experience English, not just study it (Wright, 2015). Similarly, Maley (2015) stated that creativity thoroughly stimulates, engages, motivates, and satisfies language learners. Moreover, integrating creative activities in English language teaching inspires personal growth as well as society and culture development through exploring and embracing new ideas, new feelings, and new possibilities. "Creative thinking involves a focus on exploring ideas, generating possibilities, looking for many right answers rather than just one, and sharing of results." (Papalazarou, 2015, p. 37). Foreign language learners have a direct connection with the nature of language and with its culture, and they possess an understanding of how communication occurs. If these learners were permitted to think creatively and to express their original and novel thoughts, it would be of a significant contribution and it would lead to continuous renovation in education.

Foreign language teachers' attitudes and practices direct their learners' creative performance. They could diminish their creative potential as they could nurture and promote it. In order for language teachers to foster learners' creativity, according to Wright (2015), they are supposed to not just use ingenious and innovative materials, but also engage students in the process of creation. Wright (2015) summarized three methods language teachers could use to encourage learners' engagement. First, ask them to group or to order a set of things, or to match things objectively or subjectively. Second, invite and incite them to hypothesize and share their

creative products. Third, teachers should recognize and mind learners' contribution and value it more than valuing language forms.

Correspondingly, "University teachers should recognize and value the existing knowledge and the diverse skills language learners bring with them, and to encourage learners' contributions to language classes." (Stepanek, 2015, p. 98). As education systems and universities are adopting new pedagogies and teaching methods that allow learners to be active participants in their learning process, teachers respectively tend to be less authoritative and instead become guides, advisers, and facilitators; thus, these changes necessitate high levels of flexibility and creativity (Stepanek 2015).

Furthermore, Stepanek (2015) noted that language teachers have three advantages that would assist them in the process of nurturing and enhancing learners' creative performance and achievement. The first advantage is that language is naturally creative; an idea can provoke various and varied reactions, different communicative situations create new and original utterances. The second advantages is that language classes are flexible and multidisciplinary; hence, teachers can integrate different topics in learning and still focus on language. This enables students to express their individualist and unique opinions and experiences. The third advantage discussed language classroom activities that create realistic communication situations and how it would make students motivated and enthusiastic about practicing the target language. Creative situations are supposed to be close to real; communicative situations in real life are unpredictable, flexible, and open to limitless possibilities. Engaging in these ingenious situations would help students come up with different and alternative interpretations and solutions in different circumstances. Language and creativity are interconnected. Language is creation in itself; humans create new utterances, new sentences, and new ideas in everyday life. In addition, Language classrooms in general and foreign language classrooms in particular

inevitably experience creative potential; thus, language teachers and learners should recognize it, value it, put effort into nurturing and promoting it, and maximize this creative potential.

Conclusion

The complex yet intriguing nature of creativity have incited different researchers and scholars to investigate and search for an in-depth understanding of this concept. Creativity is deeply rooted in different aspects and domains of everyday life, it is almost impossible to live in a creativity-free world. Creativity is indispensable in life because it triggers the advancement towards development. In addition, creativity is indispensable in education since it promotes self-development, confidence, problem solving skills, and thus, successful and purposeful learning. Therefore, people, schools, organizations, societies, and nations ought to recognize its value and take best advantage of this potential energy in order to boost personal as well as social development. Nonetheless, developing countries are still trapped in traditional and obsolete teaching and learning pedagogies; it is why, more emphasis and effort is required to foster creativity as a key to the development of education and of nations.

Chapter Three

Data Analysis and Interpretation

Chapter Three: Data Analysis and Interpretation

Introduction

3. 1 Research Method

3. 2 Population and Sampling

3. 3 Data Collection Tools and Procedures

 3. 3. 1 Students' Questionnaire

  3. 3. 1. 1 Aim of the Students' Questionnaire

  3. 3. 1. 2 Description of the Students' Questionnaire

  3. 3. 1. 3 Validating and Piloting the Students' Questionnaire

  3. 3. 1. 4 Administration of the Students' Questionnaire

  3. 3. 1. 5 Analysis of the Students' Questionnaire

  3. 3. 3. 6 Interpretation of the Students' Questionnaire

 3. 3. 2 Teachers' Interview

  3. 3. 2. 1 Aim of the Teachers' Interview

  3. 3. 2. 2 Description of the Teachers' Interview

  3. 3. 2. 3 Validating the Teachers' Interview

  3. 3. 2. 4 Conduction of the Teachers' Interview

  3. 3. 2. 5 Interpretive Analysis of the Teachers' Interview

3. 4 Discussion and Synthesis of results

Conclusion

Introduction

The purpose of the present study is exploring and describing the relationship between students' metacognitive awareness and creativity. More specifically, this study aims to reach an insightful understanding of metacognitive awareness and creativity in an EFL context, and thus, determine how teachers' and students' perceive the relationship between metacognitive awareness and creativity. The current chapter represents the practical part of this research; hence, it describes and justifies the research methodology, population and sampling, and data gathering tools and procedures. It, first, outlines and details the data collection instruments, their aims, description, and administration. Second, it displays, analyzes, summarizes, interprets, and discusses the results obtained the data collected. Third, the chapter concludes with research limitations, recommendations, and suggestions for further research.

3.1 Research Method

The mixed method approach was used in this research due to the nature of the study, which is intended to explore and describe EFL master teachers' and students' attitudes and perceptions on the relationship between students' metacognitive awareness and creativity. Furthermore, the nature of the study requires mixed and in-depth data to enable the researcher to understand the notions of metacognitive awareness and creativity and; thus, interpret findings concerning the possible association between the two. In addition, integrating quantitative and qualitative data provides better understanding of the studied concepts, and it increases the validity and reliability of the findings (Runeson & Höst, 2009). Therefore, in order to fulfill the objectives designed, this study employed both quantitative and qualitative methods to reasonably answers to the research questions, and reach rational and applicable conclusions. Correspondingly, the research design adopted is a case study; the complex and novel nature of this study along with the novitiate of the researcher necessitated narrowing down the scope of

research to a specific case study, which included EFL master teachers and advanced EFL master students at Mohamed Khider University of Biskra.

3.2 Population and Sampling

Three EFL master teachers' were purposively selected to be interviewed among over 50 EFL teachers. The teachers were purposively selected to be interviewed for two main reasons. The first reason was that two of the interviewees have been teaching English as a Foreign Language for different levels at middle school, high school, and University; therefore, we intended to benefit from their experience as teachers and obtain insights about the explored problem. The second reason was that the interviewed teachers currently teach master levels at the Department of English Language; more specifically, these three teachers were chosen due to their experience in teaching the specific case under study. Thus, they would be able to successfully evaluate and describe their students in terms of deliberate conscious learning and creative potential and performance, throughout their personal experience and observations.

On the other hand, among master one and master two students from both specialties; namely, Sciences of the Language and Literature and Civilization, at Biskra University, a sample of 48 female and male students were, as well, purposively selected to answer the questionnaire. EFL master students were purposively selected to answer the questionnaire based on three reasons. Firstly, EFL master students are consciously aware of themselves and of their learning; this awareness, in turn, enables them to self-evaluate themselves in terms of metacognitive awareness, creative potential, and creative performance. Secondly, master students are advanced learners; thus, they are, supposedly, knowledgeable about the two concepts under study refer to. Thirdly, master students would be able to successfully understand the suggested relationships that can possibly be between metacognitive awareness and creativity, given that they are either conducting their graduation research (the case of master

two students), or preparing to do so through studying modules like Research Methodology and Statistics (the case of master one students).

Since the aim of this research is not to generalize the findings on the whole population, rather, it seeks to gain insights regarding the problem under exploration and lay the foundation for further research. Therefore, the researcher decided to purposively select the sample (EFL master teachers and EFL master students) because they are able to provide the significant and meaningful answers required and sought.

3.3 Data Collection Tools and Procedures

The present study employs two data collection tools: a structured questionnaire for students and a semi-structured interview for teachers. The data gathered were used to answer the research questions and to test the hypothesis, in order to determine the relationship between metacognitive awareness and creativity.

3.3.1 Students' Questionnaire

3.3.1.1 Aim of the Students' Questionnaire

The students' questionnaire sought to collect data about students' beliefs and estimation with regard to their own metacognitive awareness and creativity, as well as their perceptions on the relationship between metacognitive awareness and creativity. A structured questionnaire was selected and designed since it economizes time and effort and facilitates gathering a significant amount of responses. The questionnaire was conducted online through Google Form as it was thought to be pivotal in such exceptional circumstances (social distancing due to the pandemic); it allowed surveying participants at different times and locations.

3.3.1.2 Description of the Students' Questionnaire

The questionnaire was designed and administered for the purpose of answering the first and second research question (Do EFL master students think that there is relationship between

metacognitive awareness and creativity?) and (What type of relationship do EFL master students think associates metacognitive awareness and creativity?).

The questionnaire was created on Google Form, it constituted of (4) sections with (10) overall questions. The first section was "General Information", it included (4) questions (from 1 to 4) aiming to collect general information about the participants. The second section contained (1) question, which required participants to consider the undermentioned statements as "True" or "False" as self-rate of their own metacognitive awareness skills. The statements in this question were adapted from the Schraw and Dennison's (1994) MAI (Metacognitive Awareness Inventory). We selected (20) items from this test; concerning knowledge of cognition, (8) statements were selected with regard to "declarative knowledge", "procedural knowledge", and "conditional knowledge". Moreover, concerning regulation of cognition, (12) statements were selected concerning "planning", "information management strategies", "comprehension monitoring", "debugging strategies", and "evaluation".

Furthermore, the Third section was on Creativity; it included (2) self-report questions; the first question required participants to "tick" if they believed themselves to be: imaginative, original, and creative. This question was adapted from the Villa and Auzmendi Creativity test, which consists of a list of (20) adjectives on which participants self-rate themselves using a 5-point scale ranging from "very" to "not at all". Moreover, the second question was a rating scale; participants were expected to rate themselves on (12) items using a 5-point scale ranging from "Strongly Disagree" to "Strongly Agree". This question was adapted from Kumar, Kemmler, and Holman's (1997) CSQ (Creativity Styles Questionnaire). In addition, the four and last section was about the relationship between metacognitive awareness and creativity. There were (3) "yes" or "no" questions in this section exploring participants' beliefs on the significance of both metacognitive awareness and creativity. The last question explored whether the participants believed there might be a relationship between

metacognitive awareness and creativity or not. In case the participants thought there might be a possible association, they were required to choose one type of relationship among (2) provided options.

Choosing to adapt the questions from tests that aim to measure metacognitive awareness and creativity was in order to strengthen the validity and reliability of the questions and, in turn, results obtained.

3.3.1.3 Validating and Piloting the Students' Questionnaire

The questionnaire was validated by the supervisor, who mentioned some remarks that mainly involved rewording some questions to make them clearer and more specific. In addition, the questionnaire was sent to (9) participants among the selected sample via e-mail. The remarks and comments obtained from validating and piloting were taken into account and they helped the researcher finalize the questionnaire.

3.3.1.4 Administration of the Students' Questionnaire

After the questionnaire validation and piloting, it was created online on Google Forms survey software. The questionnaire, thereafter, was administered to the participants via e-mail. The intended number of responses, which was (48), was received in a period of (10) days.

3.3.1.5 Analysis of the Students' Questionnaire

In order to answer the first research question (Do EFL master students think that there is a relationship between metacognitive awareness and creativity?) The data gathered from the students' questionnaire were analyzed via descriptive statistics through the services available in the Statistical Package for the Social Sciences. SPSS is a statistical software that helps edit, describe, and analyze data from any source: scientific research, a database, Google Analytics, or even the server log files of a website. In addition, SPSS is able to open all file formats that are commonly used for structured data: spreadsheets from MS Excel or OpenOffice, plain text

files (.txt or .csv), relational (SQL) databases, or Stata and SAS. Using this software enabled the researcher to summarize and organize the data sets easily; therefore, the obtained results were accurate.

Section One: General Information.

Item 01: How long have you been studying English?

The answers to this question are displayed in the form of frequencies in the table below:

Table 3.1. Period of Studying English Language

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11 years	17	35,4	35,4	35,4
	More than 11 years	31	64,6	64,6	100,0
	Total	48	100,0	100,0	

Table 3. 1 demonstrates that the majority of the participants have been studying English for more than 11 years (64, 6%) while the other (35, 4%) have been studying English for 11 years.

Item 02: Are you a Master one or a Master two student?

By asking question (02), we sought to distinguish how many of the participants were master one students and how many were master one students.

Table 3.2. Number of Master One Students and of Master Two Students

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	M1	16	33,3	33,3	33,3
	M2	32	66,7	66,7	100,0
	Total	48	100,0	100,0	

According to Table 3. 2, the number of master two students (66, 7%) exceeds the number of master one students (33, 3%).

Item 03: Choosing English as your major at the University of Biskra was because of:

The target aim of the third item was to explore participants' reasons for choosing to major in English as a Foreign Language at Mohamed Kheider University of Biskra.

Table 3.3. Participants' Reasons for Majoring in English Language at Biskra University

	Frequency	Percent	Valid Percent	Cumulative Percent
Lack of a better choice.	11	22,9	22,9	22,9
You were good at English in high school.	9	18,8	18,8	41,7
Your parents', friend's, or someone else's advice.	4	8,3	8,3	50,0
Your passion and interest in the language.	24	50,0	50,0	100,0
Total	48	100,0	100,0	

Table 3.3 demonstrates that the majority of students (50%) took the decision to study English Language because of their personal passion and interest in the language. (22, 9%) of the students chose English as their major since for the reason that there were no better choice. (18, 8%) majored in English since they were good at English in high school. Furthermore, the last (8, 3%) chose to study English at Biskra University because of either their parents', a friend's, or someone else's advised them to do so.

Item 04: Describe your learning experience for the past 4/5 years (Choose one answer for each of the following statements).

Through asking this question, we aimed to recognize how participants' learning experience have been for the past four (4) years (in the case of master one students), or for the past five (5) years (in the case of master two students). In order to do so, participants were given

(6) statements: Beneficial, Interesting/Exciting, Inspiring, Challenging, Waste of effort and time, and mentally stimulating. Students, then, were asked to mark how much they agree or disagree with the six statements.
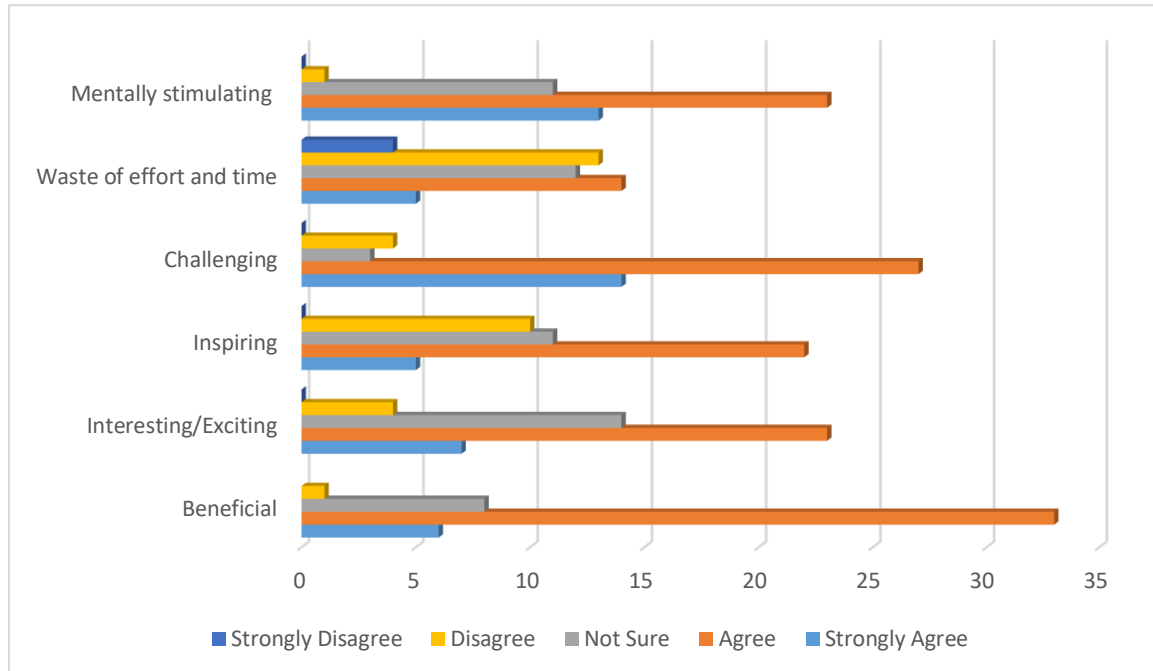
Figure 3.1. Participants' Description of Their Learning Experience in The Past 4/5 Years

For the purpose of displaying data in a clear understandable manner, data of this question were, exceptionally, displayed through a graph, and not through a frequency table. As indicated in Figure 3.1, (33) participants among a sample of (48) students agreed that their learning experience was beneficial, (8) participants were not sure whether to agree or no. (6) participants; however, strongly agreed that their learning experience was beneficial while one (1) participant selected "disagree" as an answer.

On the other hand, (23) participants agreed and (7) other participants strongly agreed that their learning experience was interesting and exciting; contrastingly (4) participants disagreed that it was so. In addition to (14) participants who were ambivalent.

Moreover, concerning the third statement "Inspiring", (22) participants stated that their learning experience was inspiring, (11) participants were uncertain if it was so or not, and (10) participants disagreed that it was inspiring. However, (5) selected "strongly agree" to demonstrate the extent to which they agreed with the statement.

With regard to the fourth statement, which was "challenging", more than half participants (27) agreed that their learning experience was challenging, (14) of the participants strongly agreed that it was so while (4) of them disagreed, and the last (3) were not certain whether their learning process was challenging for them or not.

Subsequently, answers on "waste of effort and time" were inconclusive; (14) participants agreed that their learning experience was a waste of effort and time while (13) participants disagreed. In addition, (5) participants strongly agreed and (4) other participants strongly disagreed that their learning experience was a waste of effort and time. Other (12) participants were uncertain whether they agree or disagree with the statement.

Lastly, almost half the participants (23) agreed that their learning experience was mentally stimulating, (13) of them strongly agreed that it was so. Contrastingly, (11) participants were not sure whether their learning experience was mentally stimulating or no, and one (1) participant disagreed with the statement.

Section Two: Metacognitive Awareness.

Item 01: Choose the appropriate answer.

Since the aim of this present study is to explore and describe the relationship between master students' metacognitive awareness and creativity. This question aimed to test master students' metacognitive awareness through self-rating. Participants were given (20) statements that were adopted from the MAI (Metacognitive Awareness Inventory) and they were asked to choose whether the statements were true or false.

The frequencies and percentages were calculated via SPSS; however, and in order to display the data in a clear understandable manner, the data was displayed in two customized frequency tables rather than just one. The first frequency table described data gathered regarding the statements from (1) to (10), and the second frequency table described data gathered from the statements from (11) to (20). The results were displayed as follows:

Table 3.4. Participants' Self-Rating of Their Metacognitive Awareness

Statements (From 1 to 10)	False				True			
	F.	P.	V.P.	C.P.	F.	P.	V.P.	C.P.
1. I am aware of my strengths and skills in learning.	4	8,3	8,3	8,3	44	91,7	91,7	100,0
2. I am aware of my weaknesses and my incompetencies in learning.	3	6,3	6,3	6,3	45	93,8	93,8	100,0
3. I question and evaluate my learning process.	19	39,6	39,6	39,6	29	60,4	60,4	100,0
4. I use my intellectual strengths to compensate for my weaknesses.	12	25,0	25,0	25,0	36	75,0	75,0	100,0
5. I try to find strategies to help me solve problems in learning.	8	16,7	16,7	16,7	40	83,3	83,3	100,0
6. I use the strategies for a purpose and I set goals to achieve.	14	29,2	29,2	29,2	34	70,8	70,8	100,0
7. I think about what I need to learn before carrying out a given task.	12	25,0	25,0	25,0	36	75,0	75,0	100,0
8. I make a plan to follow before starting any task.	19	39,6	39,6	39,6	29	60,4	60,4	100,0
9. I monitor my plan and my progress to identify potential problems.	19	39,6	39,6	39,6	29	60,4	60,4	100,0
10. I adjust my plan and look for better strategies when the ones I have been using are ineffective.	13	27,1	27,1	27,1	35	72,9	72,9	100,0

Note: F. = Frequency, P. = Percent, V.P. = Valid Percent, and C.P. = Cumulative Percent.

To simplify what was displayed in the table above each statement is discussed individually.

Statement 01: "I am aware of my strengths and skills in learning."

As indicated in the table 3. 4, (44) participants selected "true" which means that they are aware of their strengths and skills in learning, unlike the other (4) participants who selected "false".

Statement 02: "I am aware of my weaknesses and my incompetencies in learning."

The table 3. 4 demonstrated that (45) participants stated "true" as they are aware of their weaknesses and incompetencies in learning; in contrast with the other (3) participants that selected "false".

Statement 03: "I question and evaluate my learning process."

The table 3. 4 displayed that a number of (29) participants selected "true" on the third statement while (19) participants selected "false" indicating that they do not question nor evaluate their learning process.

Statement 04: "I use my intellectual strengths to compensate for my weaknesses."

As shown in table 3. 4, the majority of the participants (75%) indicated that they do use their intellectual strengths to compensate for their weaknesses (they selected "true"); however, (25%) of them indicated that they do not.

Statement 05: "I try to find strategies to help me solve problems in learning."

Concerning this statement, (40) participants stated that they try to find strategies to help them solve problems in learning, through selecting "true" on the statement. On the other hand, the other (8) participants selected "false", which means they do not try to find strategies to help them solve problems in learning.

Statement 06: "I use the strategies for a purpose and I set goals to achieve."

According to table 3. 4, (70, 8%) of the participants indicated that they use the strategies for a purpose and they set goals to achieve while (29, 2%) indicated that they do not.

Statement 07: "I think about what I need to learn before carrying out a given task."

As the table 3. 4 displayed, more than half the participants (36) selected "true" on the seventh statement unlike the other (12) participants, who selected "false" as they do not think about what they need to learn before carrying out a given task.

Statement 08: "I make a plan to follow before starting any task."

Statement 09: "I monitor my plan and my progress to identify potential problems."

As for statement (08) and statement (09), (60, 4%) of the participants selected "true" for both, which means they do make a plan to follow before starting any task, and they monitor their plan and their progress to identify potential problems. However, (39, 6%) of the participants indicated that they neither make a plan to follow, nor do they monitor the plan and the progress.

Statement 10: "I adjust my plan and look for better strategies when the ones I have been using are ineffective."

As indicated in table 3. 4, (35) participants selected "true"; they adjust their plan and look for better strategies when the ones they have been using are ineffective, and (13) participants selected "false"; they do not adjust their plan and look for better strategies when the ones they have been using are ineffective.

The follow up frequency table:

Table 3.5. Participants' Self-Rating of Their Metacognitive Awareness

Statements (From 11 to 20)	False				True			
	F.	P.	V.P.	C.P.	F.	P.	V.P.	C.P.
11. I use different strategies according to the task or activity.	7	14,6	14,6	14,6	41	85,4	85,4	100,0
12. I can know if I did well or not after finishing a test or an exam.	10	20,8	20,8	20,8	38	79,2	79,2	100,0
13. I can recognize which information is important to learn and which is irrelevant.	10	20,8	20,8	20,8	38	79,2	79,2	100,0
14. I assess my learning strategies and judge my learning outcomes.	18	37,5	37,5	37,5	30	62,5	62,5	100,0
15. I am capable of motivating myself to learn.	11	22,9	22,9	22,9	37	77,1	77,1	100,0
16. When I read, I take pauses and reread to check my comprehension.	5	10,4	10,4	10,4	43	89,6	89,6	100,0
17. I try to write down new information with my own words.	5	10,4	10,4	10,4	43	89,6	89,6	100,0
18. I pay close attention to the instructions before undertaking a task.	8	16,7	16,7	16,7	40	83,3	83,3	100,0
19. I manage my time to best achieve my objectives and goals.	23	47,9	47,9	47,9	25	52,1	52,1	100,0
20. I regularly ask myself if I am doing well or no while learning something new.	12	25,0	25,0	25,0	36	75,0	75,0	100,0

Note: F. = Frequency, P. = Percent, V.P. = Valid Percent, and C.P. = Cumulative Percent.

To simplify what was displayed in the table above each statement is discussed individually.

Statement 11: "I use different strategies according to the task or activity."

As the table demonstrated (41) participants stated that the statement is "true", they use different strategies according to the task or activity while the rest of the participants (7) stated that the statement is "false", they do not use different strategies according to the task or activity.

Statement 12: "I can know if I did well or not after finishing a test or an exam."

Statement 13: "I can recognize which information is important to learn and which is irrelevant."

For the statement (12) and statement (13), the table 3. 5 indicated that the same number of participants (38) selected "true" for both statements. However, (10) participants selected "false" for both statements.

Statement 14: "I assess my learning strategies and judge my learning outcomes."

According to the table 3. 5, a number of (30) participants indicated that they assess their learning strategies and judge their learning outcomes unlike the other (18) participants, which indicated that they do not.

Statement 15: "I am capable of motivating myself to learn."

Regarding this statement, the large majority of the participants (77, 1%) claimed that they are capable of motivating themselves to learn (they selected "true"). On the other hand, (22, 9%) of the participants claimed that they are not capable of motivating themselves to learn (they selected "false").

Statement 16: "When I read, I take pauses and reread to check my comprehension."

Statement 17: "I try to write down new information with my own words."

The table 3. 5 showed that (89, 6%) of the participants chose "true" for both statements while (10, 4%) of the participants chose "false" for the both of them as well.

Statement 18: "I pay close attention to the instructions before undertaking a task."

The majority of the participants (40) selected "true" as they pay close attention to the instructions before undertaking a task; contrastingly, (8) participants selected "false" as they do not pay close attention to the instructions before undertaking a task.

Statement 19: "I manage my time to best achieve my objectives and goals."

Regarding this statement, the table 3. 5 demonstrated that almost half of the participants (23) selected "false" on the statement, and the other half (25) participants selected "true".

Statement 20: "I regularly ask myself if I am doing well or no while learning something new."

As indicated table 3. 5, (75%) of the participants stated that they regularly ask themselves if they are doing well or no while learning something new whereas (25%) of them stated that they do not.

Section Three: Creativity.

Item 01: Do you believe yourself to be (tick the relevant answer(s)).

This item intended to figure whether participants believed themselves to be "imaginative", "original" and "creative" or not. The question was adapted from the *Villa and Auzmendi Creativity Test,* and it aimed to test participants' creativity via self-rating.

Table 3.6. Participants' First Self-Rating of Their Creativity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Creative.	11	22,9	22,9	22,9
	Imaginative.	12	25,0	25,0	47,9
	Imaginative., Creative.	2	4,2	4,2	52,1
	Imaginative., Original.	3	6,3	6,3	58,3
	Imaginative., Original., Creative.	10	20,8	20,8	79,2
	Original.	10	20,8	20,8	100,0
	Total	48	100,0	100,0	

As demonstrated in table 3. 6, (12) participants believed themselves to be "imaginative" solely, (11) believed themselves to be only "creative", and (10) participants believed themselves to be "original" only. In addition, (2) participants believed that they were both "imaginative" and "creative" while (3) other participants believed that they were both "imaginative" and "original". There are, furthermore, (10) participants who ticked the three options, which means those participants believed themselves to be "Imaginative", "original", and "creative".

Item 02: Choose the relevant answer for each statement.

The aim of this question was to test participants' creativity through a self-rating scale; participants were given (12) statements, which were adapted from the CSQ (Creativity Styles Questionnaire), and they were asked to self-rate themselves through 5-point scale ranging from "Strongly Agree" to "Strongly Disagree".

The data collected from this question was calculated via SPSS; however, and for the sake of displaying the data in a clear and understandable way, the data was, exceptionally, displayed via two graphs customized in MS Word. The first graph displayed data on statements from (1) to 6), and the second graph displayed data on statements from (7) to (12). The data was displayed as follows:

Figure 3.2. Participants' Second Self-Rating of Their Creativity

To simplify what was displayed in the figure 3. 2 each statement is discussed individually.

Statement 01: "I believe I am a creative person."

As figure 3. 2 demonstrates, (22) of the participants agreed that they believe they are creative along with (15) other participants who strongly agreed that they believe themselves to be creative. (9) of those participants selected "not sure", and only (2) of them disagreed.

Statement 02: "I am regularly engaged in creative work."

Regarding statement number 02, a considerable number of participants (23) agreed that they are regularly engaged in creative work, (8) participants used "strongly agree" to show the extent to which they agree with the statement while (7) of them were not sure whether they are regularly engaged in creative work or not. Contrastingly, (9) participants disagreed and (1) participant strongly disagreed with the statement.

Statement 03: "I regularly use my creative skill in classroom activities."

As show in figure 3. 2, (23) participants agreed and (8) others strongly agreed with the statement whereas (11) participants were not sure if they regularly use their creative skill in classroom activities or not. On the other hand, (5) participants selected "disagree" and (2) more participants strongly disagreed with the statements.

Statement 04: "My creativity comes from unconscious processes and inspiration."

According to the figure, more than half participants (26) agreed that their creativity comes from unconscious processes and inspiration; furthermore, (14) participants selected "strongly agree" to demonstrate the degree to which they agree with the statement. However, (6) participants selected "not sure", (1) participant disagreed, and another (1) participant strongly disagreed with the statement.

Statement 05: "I feel that new ideas possess me and guide me to completion almost automatically."

As indicated above, a number of (22) participants stated that they agree and (12) of them noted that they strongly agree with the statement. (10) of the participants were not certain whether they feel that new ideas possess and guide them to completion almost automatically or not, in addition to (4) participants who chose "disagree".

Statement 06: "I believe that creativity comes from hard work and persistence."

Additionally, when the participants were asked about the extent to which they agree or disagree with the sixth statement, a number of (17) participants stated that they agree while (11) others noted that they strongly agree that creativity comes from hard work and persistence. In addition, (11) participants selected "not sure", (8) of them claimed that they disagree, and (1) participant chose "strongly disagree".
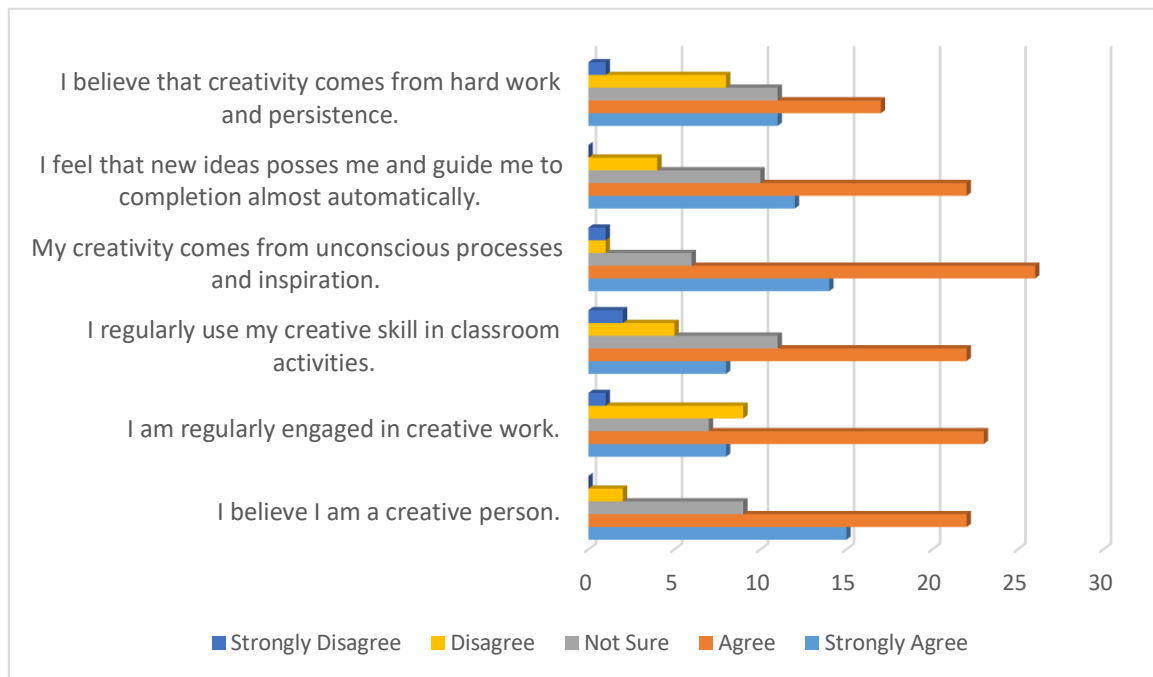
The follow up figure:
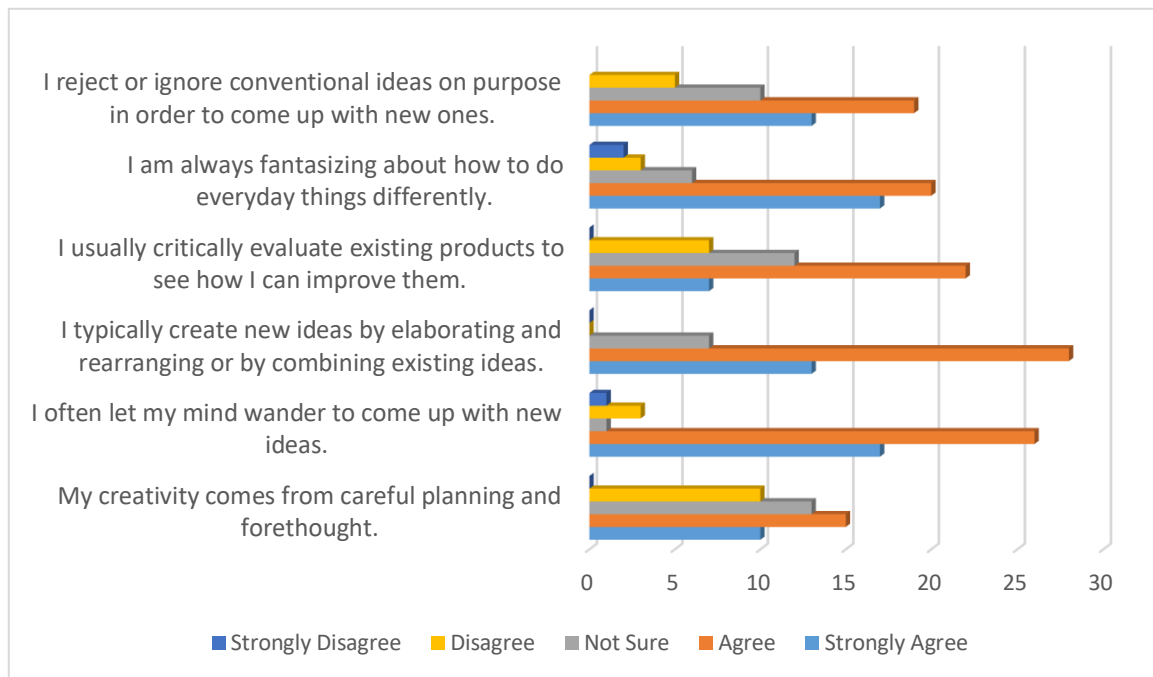
Figure 3.3. Participants' Second Self-Rating of their creativity

To simplify what was displayed in the figure 3. 3 each statement is discussed individually.

Statement 07: "My creativity comes from careful planning and forethought."

It is clear in the figure 3. 3 that (15) participants agreed and (10) others strongly agreed that their creativity comes from careful planning and forethought unlike (10) other participants who claimed that they disagree. Moreover, (13) participants were not sure whether they agree with the statement or not.

Statement 08: "I often let my mind wander to come up with new ideas."

As the data supplies, over half the participants (26) agreed that they often let their minds wander to come up with new ideas along with (17) more who strongly agreed. On the other hand, (3) participants disagreed and (1) participant strongly disagreed while another (1) participant who were not sure.

Statement 09: "I typically create new ideas by elaborating and rearranging or by combining existing ideas."

Concerning the current statement, a considerable number of participants (28) selected "agree" and (13) more selected "strongly agree". However, (7) participants noted that they were not sure whether they typically create new ideas by elaborating and rearranging or by combining existing ideas or not. None of the participants disagreed to this statement.

Statement 10: "I usually critically evaluate existing products to see how I can improve them."

As the figure 3. 3 indicated, (22) participants usually critically evaluate existing products to see how they can improve them, (7) participants strongly agreed that they do whereas (12) others selected "not sure". In addition, (7) participants selected "disagree".

Statement 11: "I am always fantasizing about how to do everyday things differently."

In addition, (20) participants agreed, (17) of them strongly agreed, and (6) more were not sure if they are always fantasizing about how to do everyday things differently or not. On the opposite position, (3) participants disagreed and (2) other strongly disagreed with the statement.

Statement 12: "I reject or ignore conventional ideas on purpose in order to come up with new ones."

The last statement sought to know the extent to which participants agree or disagree; accordingly, a number of (19) participants stated that they agree, (13) of them noted that they strongly agree; however, (5) participants claimed that they disagree and (1) participant selected "strongly disagree". In addition to (10) participants who were not certain about whether they agree or disagree.

Section Four: The Relationship between Metacognitive Awareness and Creativity.

Item 01: Do you believe that metacognitive awareness is a characteristic of skilled and proficient language learners?

This question was asked with the aim of exploring whether participants believed that metacognitive awareness is a characteristic of skilled and proficient language learners or not. The table 3. 7 displays the data that was calculated via SPSS.

Table 3.7. Participants' Beliefs on whether Metacognitive Awareness is a Characteristic of Skilled and Proficient Language Learners or Not.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	3	6,3	6,3	6,3
	Yes	45	93,8	93,8	100,0
	Total	48	100,0	100,0	

As indicated in table 3. 7, a large majority of the participants (93, 8%) answered (yes); metacognitive awareness is a characteristic of skilled and proficient language learners while (6, 3%) answered (no).

Item 02: Do you believe that creativity is important in the EFL classroom?

By asking this question, we sought to know whether the participants believe that creativity is important in the EFL classroom or no. The data collected from this question was calculated via SPSS, the data was displayed as follows:

Table 3.8. Participants' Beliefs on the Importance of Creativity in The EFL Classroom

		Frequency	Percent	Valid Percent	Cumulated Percent
Valid	No	4	8,3	8,3	8,3
	Yes	44	91,7	91,7	100,0
	Total	48	100,0	100,0	

Item 03: Do you think that there is a relationship between metacognitive awareness and creative performance? If yes, what type of relationship do you think might be between metacognitive awareness and creativity?

The "yes" or "no" question was asked with the intention of recognizing whether students thought there is an association between metacognitive awareness and creativity or not. Both descriptive and inferential statistics were operated via SPSS for the purpose of answering the first research question (Do EFL master students think that there is a relationship between metacognitive awareness and creativity?), and in order to confirm or disconfirm the hypothesis (EFL master students think that there is a relationship between metacognitive awareness and creativity).

In addition, the sub-question within item 03 aimed to identify what type of relationship might exist between metacognitive awareness and creativity. Participants were required to select one possible relationship between two available options. Both descriptive and inferential statistics were operated via SPSS, in order to answer the second research question (What type of relationship do EFL master students think associates metacognitive awareness and creativity?).

Table 3.9. Students' Perceptions on the Relationship between Metacognitive Awareness and Creativity

		What type of relationship you think might be between metacognitive awareness and creativity?		
		Metacognitive awareness promotes creativity	Metacognitive awareness impedes creativity	Total
Do you think there is a relationship between metacognitive awareness and creative performance?	No	3	0	0	3
	Yes	0	43	2	45
Total		3	43	2	48

Table 3.10. Fisher's Exact Test Table

	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	48,000[a]	2	,000	,000
Likelihood Ratio	22,444	2	,000	,000
Fisher's Exact Test	19,450			,000
N of Valid Cases	48			

a. 4 cells (66,7%) have expected count less than 5. The minimum expected count is ,19.
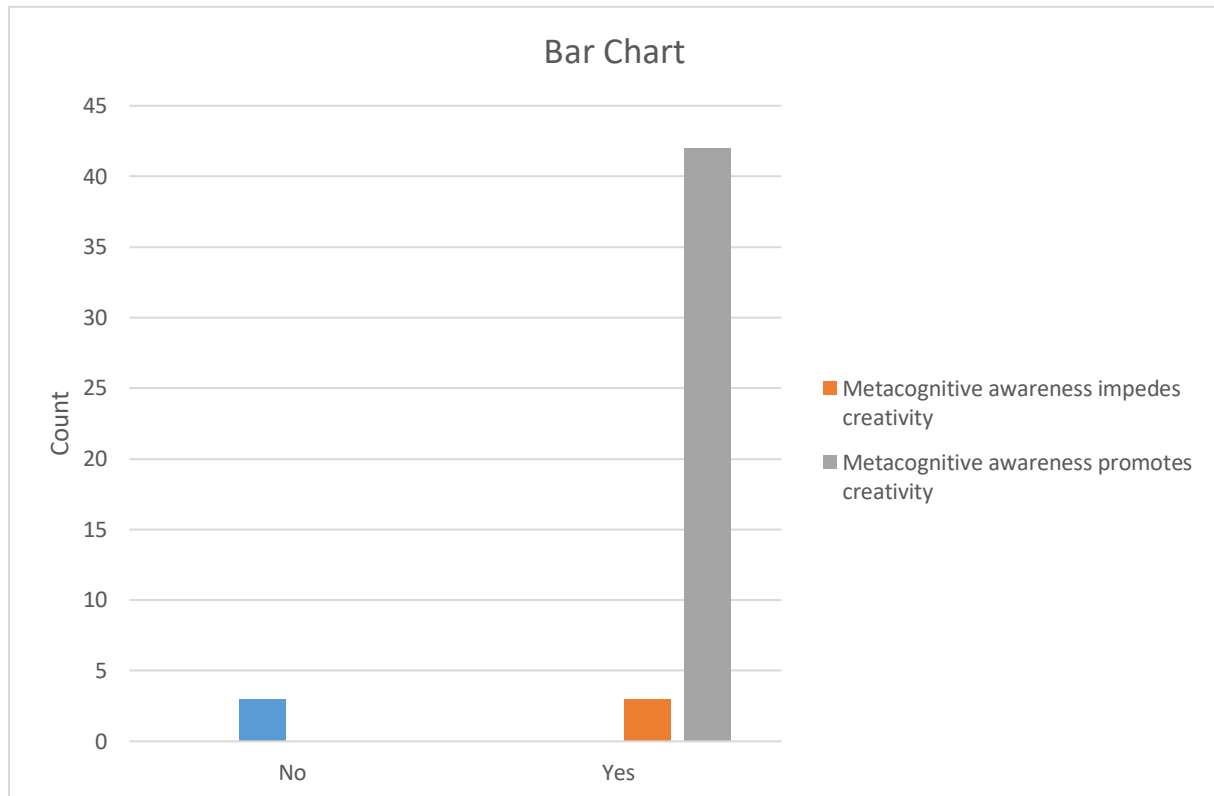
Figure 3.4. Participants Perceptions on the Type of Relationship between Metacognitive Awareness and Creativity

In order to answer the first two research questions and test the hypothesis we, operated the inferential statistics via SPSS. We employed the Fisher exact test instead of Pearson's chi-square test because of the small sample size and since we had a 2 by 2 contingency table. We hypothesized that EFL master students think that there is a relationship between metacognitive awareness and creativity. The SPSS calculated the number of participants who agreed that there is a relationship between metacognitive awareness and creativity, which was (45) participants. In addition, comparing the value of Fisher's exact test (19, 450) with the (p) value, we noticed that the value of Fisher's exact test is greater than the value of (p), as indicated in table 3. 10. Moreover, as indicated in table 3. 9 and in figure 3. 4, the type of relationship that participants believed might associate metacognitive awareness and creativity was that metacognitive

awareness promotes creativity. Thus, we accepted the alternative hypothesis and rejected the null.

3.3.1.6 Interpretation of the Students' Questionnaire:

The analysis of the students' questionnaire findings provided significant and reasonable answers to the research questions; consecutively, the findings supported the research hypothesis.

Initially, among 48 participants, 16 students were master one students and 32 were master two students. Half the participants reported that they chose to major in English at Biskra University because they are personally interested and passionate about learning the language. The other half of participants' reasons for studying English as a Foreign Language varied between "they were good at English back in high school", "the lack of better choices", and "following someone's advice".

When participants were asked about their impressions and reactions towards their learning experience, the majority of the students claimed that their learning experience was beneficial, interesting and exciting, inspiring, and mentally stimulating; in addition, participants noted that their learning journey in university was challenging as well. However, we noticed two important points; first of all, when asked if they agree that their learning experience was a waste of effort and time, a considerable number of students answered with "agree" and "strongly agree". These participants claimed first that their learning experience was beneficial, interesting, and mentally stimulating then they agreed that it was also a waste of effort and time. Second notable point was the considerable number of participants selecting "not sure" as an answer to all statements. Therefore, these two remarks raise questions on whether the participants are aware of their learning experience and its outcomes or not.

Concerning students' self-ratings of their metacognitive awareness skills, the majority of participants agreed on most statements, except for one statement regarding time management, in which (52, 1%) of participants stated that they are able to manage their time in order to meet designed objectives and (47, 9%) of them stated that they are not able to do so. We deduce from this that EFL master students might have time management problems.

Subsequently, with regard to students' self-ratings of their creativity, only (10) participants among a sample of 48 students believed themselves to be original, imaginative and creative; on the other hand (12) believed themselves to be solely "imaginative", (11) selected "creative" only , and (10) selected only "original". We perceive from this that the participants are either doubtful or they do not believe themselves to be original, imaginative, and creative.

Moreover, in the second question, adapted from CSQ test (Creativity Styles Questionnaire), the majority of participants agreed with statements like "I am regularly engaged in creative work" and "I regularly use my creative skill in classroom activities"; this indicates that participants do perform and manifest their creative potential. In addition, participants also agreed with statements like "I typically create new ideas by elaborating and rearranging or by combining existing ideas." and "I often let my mind wander to come up with new ideas"; constantly attempting to generate new ideas, achieve better outcomes, and improve one's self and one's performance is an indicator of effective learning.

Nonetheless, we noticed that the majority of the participants agreed with statements like "my creativity comes from unconscious processes and inspiration" and "I feel like new ideas possess me and guide me to completion almost automatically". On the other hand, they disagreed with statements like "I believe that creativity comes from hard work and persistence" and "My creativity comes from careful planning and forethought". Therefore, we concluded that the participants do not perceive creativity as a conscious process, and consequently we doubted whether they think that creativity is related to metacognitive awareness or not.

After participants self-rated their metacognitive awareness as well as their creativity, the last section in the questionnaire determined how students' perceive the relationship between metacognitive awareness and creativity. Initially, almost all participants acknowledged that metacognitive awareness is a characteristic of skilled and proficient language learners and that creativity is important in the EFL classroom. Most importantly, nearly all participants agreed that creativity is associated with metacognitive awareness; in addition, regarding the type of relationship between the two, (75, 5%) of the participants, who agreed that the variables might be related, claimed that metacognitive promotes creativity.

What could we deduce from this is, first, students' high self-ratings of their metacognitive awareness are in parallel with them agreeing that metacognitive awareness is a quality of proficient language learners; thus, we accept that the majority of the participants are proficient language learners. Second, a considerable number highly self-rated themselves in the two creativity tests; in addition, the majority agreed that creativity is an unconscious process, yet they agreed that metacognitive awareness promotes creativity. This indicates that students' answers are, to a certain extent, contradictory; this might be due to the complexity and the broadness of the term "creativity"; thus, the students share different understandings and definitions of the term. Or this might be due to the self-report tests, which may not be valid and reliable since learners with no awareness of themselves and with inadequate analytical skills might fail to rate themselves accurately either by exaggerating or understating their self-assessment.

The results are justifiable and predictable since creativity differs from one person to another. Theories suggest that characteristic differences when individuals process creative solutions with the purpose of producing fluent, flexible, or original solutions effect their judgment and self-assessment along with their creative productions. To conclude, the interpretation we suggest is that creativity is a process and it goes through different stages;

students' creative potential might stem from their unconsciousness; however, in order for creativity to be performed one would need reflective thinking, careful planning, and conscious awareness.

3.3.2 Teachers' Interview

3.3.2.1 Aim of the Teachers' Interview

The semi-structured interview was used with the aim of supplementing the questionnaire findings with teacher's attitudes and perceptions on their students' conscious awareness of their learning process, and to recognize whether they believe that it has a relationship with their students' creative performance or not. Selecting this data collection instrument was because it is most useful to gather in-depth data through probing. Personally conversing and interacting with teachers as they discussed and explained metacognitive awareness and creativity from a concrete practical perspective through their personal experience with students enabled the researcher to grasp the significance and involvement of these concepts in an EFL context. Therefore, conducting face-to-face interviews provided several advantages; the researcher obtained a wealth of in-depth and detailed data.

3.3.2.2 Description of the Teachers' Interview

The semi-structured interview was designed and administered for the purpose of answering the first research question (What are EFL master teachers' attitudes and perceptions on the relationship between students' metacognitive awareness and creativity?). On this basis, the interview comprised (8) one-ended questions. Question number (1) was regarding the how long teachers have been teaching English in University, and how long they have been teaching master levels. Questions number (2) was regarding students' metacognitive awareness; teachers were asked if they thought there were some of their students who are not aware of themselves and of their learning process. Furthermore, question number (3) explored teachers' criteria of judgment concerning a creative students or a creative product, through their personal teaching

experiences. Question number (4) sought to know how do teachers think the relationship between their students' metacognitive awareness and creativity would be. Question number (5) explored the influence metacognitive awareness might have on EFL master students. Subsequently, question number (6) was concerning the reasons of the lack of creativity in the Algerian EFL classroom, according to the teachers' perspectives. Question number (7) asked teachers whether the lack of creativity in their classrooms incited them to attempt to foster their students' creativity. To conclude, in the eighth and last question we asked teachers to comment on the statement "School kills creativity!"

3.3.2.3 Validating the Teachers' Interview

The teachers' interview was validated by the supervisor; however, due the shortage of time and teachers' lack of time, the interview could not be piloted.

3.3.2.4 Conduction of the Teachers' Interview

After contacting the teachers via e-mail to request of them to participate in the interview, the three teachers accepted the invitation; further contact was made to agree on convenient date and place to conduct face-to-face interviews. In addition, the interviews were held in quite locations and in at times and places of the teachers choice, in order to keep them at ease and comfort. Each of the sessions lasted approximately one hour each, and he interviews were recorded with the teachers' permission.

3.3.2.5 Interpretive Analysis of the Teachers' Interview

For the purpose of answering the third research question and obtaining comprehensible, significant, and objective answers, we attempted to make use of the content analysis method. Content analysis is frequently employed in analyzing interview since it best suits the nature of variables under study. In order to carry out a content analysis of the qualitative data, the interview recordings were transcribed, organized, and codified. The second step included identifying themes in order

to draw connections and determine possible explanations, and report them. The interview's answers were analyzed and interpreted as follows:

Question 01: How long have you been teaching English at university? How long have you been teaching master levels?

Since we intentionally interviewed teachers of the specific case under study, asking these questions at first were essential given that teachers' experience plays a major role in raising their awareness, attentiveness, and understanding of their students. The answers obtained to this question revealed that one teacher has been teaching English at university and teaching master levels for three years. Moreover, the other two interviewees have been teaching master students for nine years; in addition, they have taught different levels of EFL classes at middle and secondary school; signifying that they are expert English language teachers. Therefore, we sought their insightful feedback and opinion in order to answer the research questions.

Question 02: Do you think that some EFL master students are unaware of themselves and of their learning process, and they do not attempt to plan, monitor, evaluate, and adjust their learning?

The three interviewees had affirmative answers to this question. Teacher A and teacher C stated that based on their teaching experience, only a few master students are aware of their learning process while most of the students do not engage in their learning; they do not plan, they do not check comprehension, they do not monitor their learning progress, and they do not self-assess themselves. The third teacher, however, noted that based on her personal teaching experience and observation, only some students lack metacognitive awareness, she stated that one could not generalize because there are many factors that could interact and interfere in the learning context; for instance, psychological factors, the environment, the role of the teacher,

and the type of tasks and assignments. According to the teachers, the social and political factors have a major effect on this matter since quantity is encouraged over quality.

Question 03: How do you identify a creative student/ a creative product?

Since the concept of creativity is wide-ranging and multidimensional, we requested the interviewees to answer this question based on their own personal teaching experience aiming to obtain specific explanations and exemplifications. Each teacher answered the question from an individualistic perspective; samples of their answers are summarized in the following table:

Table 3.11. Samples of Teachers' Responses on the Criteria of Judging a Creative Student/ Creative Product

Teacher	Response Sample
A	By the way he/she processes a certain task; in EFL context, we refer to writing an essay in Ph.D. contests for example. The way he/she solves a certain problem (writing an essay, building a paragraph). It is not about imagination solely; if a student only thinks creatively, but does not produce then he/she is not creative. For students to be creative they ought to use their metacognitive awareness and put on new things in order to develop an original essay.
B	Since I consider creativity as an **attitude**, an individual attitude, not as a product, a student's creativity is noticed through the way they interact with the task. Creativity is never about bringing something new to the field, it is about how students deal with something already known and already done; to deal with it in a very special attitude. Creative students are characterized by originality in their products, passion, uniqueness, and **responsibility** (they make free authentic choices).

| C | A creative student is the one who is autonomous and metacognitively aware of his/her learning process. He/she generally focuses on being unique and original. We can identify such learner throughout his/her learning products, which are most of the time personal and free from any type of plagiarism. We can also feel this originality; for instance, through the style they use when writing. |

According to Amabile (1983), psychologists define and assess creativity in terms of three aspects: the creative person, the creative process, and the creative product. First, in terms of the creative person, teachers A, B, and C agreed that a creative student is original. Teachers A and C claimed that a creative student is metacognitively aware. Teacher B and teacher C agreed on uniqueness as a characteristic of creative students. Teacher B claimed that a creative student is passionate, makes responsible and authentic choices, and he/she has an individualistic special way of doing things that all people do. Moreover, teacher C reported that for a student to be creative, he/she ought to be autonomous. Second, in terms of the creative process, interviewee A and interviewee B noted that they identify creative students through the way they process and interact with a given task. Third, and in terms of the creative product, teacher A said that a creative piece of writing (an essay or paragraph) is assessed as a creative product if it includes novel and original ideas whereas Teacher C noted that creative students' writing compositions are personal, original in style, and free from any type of plagiarism. In addition, teacher C stated that creative students are characterized by originality and uniqueness in their products.

To conclude, according to the literature review, psychologists and creativity researchers have agreed on a certain set of characteristics for a creative product: novelty, originality, uniqueness, appropriateness, and usefulness. We noticed that the teachers have considered

novelty, originality, and uniqueness; however, none of them mentioned appropriateness and usefulness of the products to the context or the domain of study/work.

As a further comment, both teacher A and teacher B agreed that having a creative potential is not enough to consider a student as creative; students has to make a choice to depict their creativity via actual achievements and performances. Furthermore, Teacher B explicitly accentuated two main ideas; the first was that creativity is a choice not a gift. According to teacher B, everyone could be creative; however, some choose to be creative and some do not choose to be so. The second comment that teacher B emphasized was that "responsibility stimulates creativity." As interviewee B reported, a sense of responsibility enthuses and induces students' creative performance. Moreover, it is evident in the sample of teachers' responses that teacher A and teacher C have included metacognitive awareness as a characteristic of creative students. Answers to the next question provided detailed and profound explanations on this account:

Question 04: How do you think the relationship between students' metacognitive awareness and creativity would be?

This question was asked in order to answer the third research question (What are EFL master teachers attitudes and perceptions on the relationship between students' metacognitive awareness and creativity?) Thus, we intended to recognize if teachers believed that students' metacognitive awareness and creativity are associated or not. If they believed they are, we asked them to explain and describe their perceptions on the type of relationship that might connect the two notions. Elaborating on this main point, the interviewees have provided us with a wealth of data. The following table summarizes their responses and insights:

Table 3.12. Samples of Teachers' Responses on the Criteria of Judging a Creative Student/ Creative Product

Teacher	Response Sample
A	Metacognitive awareness is related to creativity, I do not believe that someone who does not reflect on his/her ways of doing things and evaluate it could be creative.
	Metacognitive awareness guides the student to evaluate, correct, and innovate his/her strategies, which is the basis for creativity.
	In order to be creative, a student should reflect and evaluate on whatever task they are undertaking.
B	It is a chain of processes: I feel responsible for my own learning journey, so I must respond positively and actively to this by moving from the unconsciousness to the consciousness where there is metacognition, acting at the level of consciousness means being aware of one's own unique potentials. Switching from the unconscious level, which is based on conditioning, to the conscious level makes us find and discover ourselves, how special we are, and how different we are from everyone else; from here, creativity can take place. This is my explanation of the correlation between metacognitive awareness and creativity.
	We are all creative, metacognitive awareness allows us to reach a level of consciousness that helps us manifest creativity.
C	Students' creative performance could correlate with their metacognitive awareness.
	Metacognitive aware students know that they are creative. They are even able to control and monitor their creativity to make it more useful and highly performed.

As described in the table above, the three teachers agreed that students' metacognitive awareness and creativity are associated. Teacher A reported that metacognitive awareness allows students to reflect on themselves, to evaluate, correct, and innovate; this, in turn, precipitates creativity. As for teacher C, she noted that students' creativity could correlate with their metacognitive awareness and that metacognitive awareness helps students monitor their creativity and; hence, make it more useful.

 In addition, teacher B have provided us with a detailed chain of processes that may possibly connect students' metacognitive awareness with their creativity. According to her personal perspective, creativity occurs when a student shifts from the unconscious set of mind to the conscious one; deliberate conscious learning enables students to realize who they are and to know their potentials and shortcomings. In addition, consciously knowing themselves leads to figuring how students are different from everyone else; hence, creativity occurs when students are aware of how unique they are. Because, as per teacher B, if we act from the unconsciousness, we would all be the same and act the same way because we would be acting from what we have been conditioned, how we were all taught to be.

Another comment that teacher B have accentuated was, once again, **responsibility**, which she defined as the ability to respond to real life data in front of us, and as the ability to take the action to do something. Learners who deliberately activate their metacognitive awareness are responsible of their learning. "It all starts from a sense of responsibility, being responsible for his/her learning journey; thus, he/she must do something consciously to achieve a special outcome."

Question 05: What kind of influence could metacognitive awareness have on EFL Master Students?

Concerning this point, all three interviewees affirmed that metacognitive awareness has a set of positive effects; nonetheless, each one of them mentioned different effects based on

their own personal teaching experiences with the courses they have been teaching. The answers are summarized in the table as follows:

Table 3.13. Samples of Teachers' Responses on the Influence of Metacognitive

Awareness on EFL Master Students

Teacher	Response Sample
A	Very positive effect, students would develop intellectually, intellectual development would lead students to be creative. Developing self-esteem and Motivation. When students are aware of their weaknesses, they would be able to come up with strategies to overcome them.
B	Based on my own personal observation of my students, it has a positive effect. The quality of products of conscious students, whether oral or written are precise and concise. These students do not talk randomly or arbitrarily, never, they give you very clear and precise information, which is a sign that they are clear in their minds. Metacognitively aware students are not only aware of the skills they learn, they know how to operate and apply those skills. Metacognitively aware students trust themselves as learners, and they are responsible for their learning.
C	Metacognitively aware learners know when they understand a concept and when they are lost and need to fix up their difficulties. Moreover, being metacognitively aware is the hallmark of the successful language learner.

As indicated in the table above, teacher A, first, have mentioned that metacognitive awareness as a higher order cognitive process contributes to students' mental and intellectual development. According to her, intellectually developed students are likely creative students. Additionally, interviewee A reported that metacognitive awareness also helps students become more motivated since they are conscious of what they are learning, why they are learning, what to do in order to succeed, and how to overcomes the difficulties they face; this awareness grants mental strength and motivation for students to learn effectively. The third positive effect that teacher A have stated is self-esteem. Logically, once students discover themselves and reach a certain level of both cognitive and affective awareness of themselves, they would value themselves.

Second, according to teacher B, a concrete sign of metacognitive awareness in students is the quality of their oral or written products; conscious students express their ideas and answer questions in a clear, organized, precise, and concise manner. This shows that aware students are organized and clear in their minds. Another positive impact of metacognitive awareness that teacher B have observed is the knowledge and ability to practically apply the skills that students have learned, and not merely knowing them.

Third, teacher C, metacognitive awareness is a necessary step to regulate learning through self-assessment and comprehension checking. We can deduce from the abovementioned answers and comments that the three teachers regard metacognitive awareness as an essential and an indispensable skill especially for master students given that they are adult learners and they are required to be mindful and responsible for their learning. Metacognitive awareness permits learners to be more efficient and focused on what they are required to learn. Research have shown that the ability to think about one's thinking increases with age; thus, metacognitive awareness ought to be a characteristic of all EFL master students.

Question 06: What do you think are the reasons for the lack of creativity in the Algerian EFL classroom?

Elaborating on this point, all the interviewed teachers affirmed that the Algerian EFL classroom does lack creativity. Their answers on the reasons behind this lack were summarized and described in three themes. The themes are discussed separately as follows:

1. Creativity is not prioritized:

All three interviewees have accentuated three major factors within this theme. First, creativity is not a priority; thus, identifying, encouraging, nurturing, and rewarding creative students and creative achievements does not exist in schools' and universities' agendas nor do the curricula have any intention to foster learners' creativity. Second, the large number of master students, which means quantity is favored over quality. Third, the pedagogies and methodologies followed in EFL teaching are obsolete; they still encourage route and unconscious learning since early levels; in addition, approaches like the competency-based approach are introduced, which characteristics are based on students learning and on using very little number of students; however, it is not applied in actual learning contexts.

2. Non-creative teachers:

In addition to schools' curricula and teaching pedagogies, another paramount reason why EFL classrooms lack creativity is teachers. According to teacher A and Teacher B, the majority of EFL teachers are not creative and some even lack metacognitive awareness. Thus, if the teacher still acts from his/her unconscious and is not creative him/herself, they would not be able to foster their learners' creativity. Moreover, interviewee A mentioned that teachers are not trained; they possess no knowledge neither of the appropriate teaching approaches nor of psychology and psych-pedagogy; hence, they just teach randomly. Furthermore, interviewee C claimed that EFL teachers put effort into the completion of the curriculum without trying to equip learners with the appropriate skills and strategies to learn effectively and creatively.

   3. Students themselves:

Both teacher B and teacher C emphasized that is it not always the fault of the education system and the teacher, rather the lack of creativity might be caused by students themselves. Teacher B attributed the lack of creativity in the EFL classroom to students' irresponsibility while teacher C claimed that it because of students' unawareness. Furthermore, Interviewee B noted that students like to learn unconsciously because it is familiar and easier to them, "they do not like to make choices; they wait for teachers and everyone else to choose for them." Despite the fact that the education system have not been encouraging them to be creative, university students, especially master students, are adults and it is their responsibility and their own choice to change their pattern of learning, be conscious, and be creative.

Question 07: Does this incite you to adapt certain methods or techniques in order to foster your students' creativity?

Continuing from the previously mentioned reasons of the lack of creativity in the Algerian EFL classroom, we asked the interviewees if those circumstances motivate them to attempt and nurture their students' creativity. Three interviewed teachers confirmed that they are attempting to dedicate some of their time and effort to motivate students and encourage them to be creative despite the numerous adversities. Teacher A confirmed that she is doing her utmost to improve herself and to encourage the students whereas teacher B stated that she is trying yet it is not enough. The teachers attested that certain requirement ought to be met in order for teachers to be able to encourage students and help them be creative; for instance, small number of students, liberated curriculums, and more appropriate setting and schedules. Additionally, teacher B added that we ought first to encourage teachers to be metacognitively aware and creative before encouraging students' to be so. It is clear from the previously mentioned answers that teachers are struggling with the overcrowded classrooms along with the overloaded curricula and schedules, and more other challenges. Therefore, it understandable

that teachers would not have enough time, energy, nor motivation to attempt and foster their students' creativity even if they are creative and they are aware of its importance.

Question 08: What do you think of the statement "school kills creativity?"

Concerning the last questions, the interviewees had mixed answers. Samples of their responses are summarized and described in the following table:

Table 3.14. Samples of Teachers' Responses on the Influence of Metacognitive Awareness on EFL Master Students

Teacher	Response Samples
A	School kills creativity; overloaded curriculums and untrained teachers lead to mentally tired pupils. In our context, creativity is killed in the very first years at school, right in primary school. If children were not given the time and opportunity to be creative in their early years, then their creative potential would be squandered, and they would not be able to make it up in the future.
B	It depends on the school and on the teaching approach followed by the school; if the approaches followed are interacting in harmony, it might help nurturing students' creativity. Even if teachers do not apply fully and effectively the approaches, they would still help to some extent when students respond to them. If schools did kills creativity, we would not have any creative individuals in this society; thus, I cannot claim that school kills creativity.
C	School may kill creativity with the absence of creative instructors and meaningless materials. However, teachers can foster learners' creativity by being

themselves creative and by teaching learners how to be creative and maintain

their creativity.

Based on the comments the three teachers provided us with, and as demonstrated in

table 3. 14, school courses, curricula, teaching approaches and methods, the setting, and the

teachers are all factors effecting the quality of students' performance and achievement whether

negatively or positively. Creativity is one aspect that is influenced by those factors; they either

help fostering students' creativity or they squander it. As teacher B have mentioned, the answer

concerning whether school does kill creativity or not could not be definite sine there are many

variables interacting. However, in such a formal context as school, learners are restricted,

especially in their early stages and this restriction might be of a negative influence on learners'

creative potential; if schools and education systems consume learners' time, energy, and

enthusiasm with overloaded schedules and traditional teaching methods, which encourage

unconsciousness and passiveness, learners would eventually lose that creative potential.

Consequently, since learners are very dependable on school and on their teachers in their first

years, it is the school's duty to shape their path and mindset for them, nurture their creative

potential, and help them perform it effectively. If the school does not consider this

responsibility, it would be its fault that learners' creativity is killed.

3.4 Discussion and Synthesis of Findings

After presenting detailed results' interpretations of both students' questionnaire and

teachers' interview, this part will be devoted to comprehensively synthesizes and discuss the

key findings of the study; how they might be related, and whether there is a divergence or

convergence between quantitative and qualitative results.

Initially, EFL master students agreed that metacognitive awareness is a quality of

proficient and skilled language learners; correspondingly, they highly self-rated the level of

their metacognitive awareness. In addition, students accepted that creativity is an important skill in the EFL classroom; convergently, their self-ratings concerning their creativity were, also, relatively high.

Nevertheless, concerning the first self-rating creativity question (adopted from *the villa and Auzmendi creativity test*), only (20, 8%) of students believed themselves to be (original, imaginative, and creative) while (20, 8%) believed that they are only original, (25%) assessed themselves as solely imaginative, and (22, 9%) of students assessed selected creative only. This might be due to students' lack of self-awareness or self-doubt, or it might be because those students assume that they are not creative. On the other hand, the teachers believed that all students have a creative potential, but some students might lack self-awareness, metacognitive awareness, and self-confidence. This might be the reason behind students' choices in the first test of creativity.

Additionally, results of the questionnaire revealed that both teachers and students indicated that there is a relationship between metacognitive awareness and creativity. In addition, students indicated that metacognitive awareness promotes creativity. However, results of the second self-rating creativity question revealed that the majority of students perceive creativity as an unconscious process that does not come from careful planning and forethought while all three teachers asserted that creativity is a conscious cognitive process that requires reflective thinking, conscious awareness, and mindfulness.

The teachers' belief that creativity is a conscious mental process explains their belief that metacognitive awareness is associated with creativity dissimilar to the case of students. Although students claimed that their creativity comes from unconscious processes and inspiration and not from hard work, careful planning, and reflective thinking, they proceeded to agree that metacognitive awareness promotes creativity. This might be due to their

individualistic understanding of the concept "creativity", or that the process of creation involves one's unconsciousness as his/her consciousness. It is evident that in order to understand the exact reasons that explain such results requires more in-depth investigation.

Furthermore, the teachers emphasized important points during the interviews. First, teachers mentioned certain positive effects metacognitive awareness could have on EFL master students; they listed intellectual development (which would lead to creation) and increasing motivation and self-esteem; in addition, it was noted that metacognitive skills allow students to be mentally clear and organized, and to identify problems and lacks and overcome them. Second, teachers agreed that creative students are characterized with metacognitive awareness, originality, uniqueness, responsibility, and passion. Third, the reasons behind the lack of creativity in the Algerian EFL classroom that the teachers agreed on were the rigid obsolete, and random teaching pedagogies and methods, overloaded curriculums and crowded classrooms, non-creative and untrained teachers, and the irresponsibility and unawareness of EFL students.

Based on the aforementioned results and interpretations, it may be concluded that both teachers and students agree that there might exist an association between metacognitive awareness and creativity. Hence, the results obtained have answered the research questions and confirmed the research hypothesis underlying the present study.

Conclusion

The third and last chapter represents the practical part of the present study. First, the research method, population, and sampling were discussed along with the rationale behind the selection of the data gathering instruments. Second, the chapter covered details about the procedures of collecting data through students' questionnaire and teachers' interviews; in addition to, describing, analyzing, and interpreting study results and findings. Summery and

discussion of results revealed that EFL master teachers affirmed that metacognitive awareness and creativity, as higher order cognitive functions, ought to be associated. Moreover, the majority of participants, which are EFL master students, acknowledged that metacognitive awareness and creativity are related. Additionally, concerning the type of relationship that might connect the two, the majority of the students' answers, who believed that there might be a relationship between metacognitive awareness and creativity, agreed that metacognitive awareness promotes creativity.

General Conclusion and Recommendations

General Conclusion and Recommendations

It is indisputable that the effect of metacognitive awareness and creativity on learners' cognitive and affective functions as well as their performance has been deemed positive and essential, and foreign language learners are no exception. The presented study attempted to collect thorough, meaningful, and insightful data on the two compelling yet complex concepts, which are metacognitive awareness and creativity, under the umbrella of EFL learning with the aim of; first, laying the foundation for further in-depth research following correlational and experimental research methods. Second, the study intended to emphasize the importance of conscious awareness and creativity in EFL learning/teaching contexts. These efforts are all devoted to the improvement and development of EFL learners.

The incitement to conduct this study was attributable to the neglect of the psychological aspects in general in EFL learning contexts and EFL research contexts, in Algeria. Creativity is of paramount importance in language learning since language itself is a creative and unlimited system. In addition, metacognitive awareness is considered as the hallmark of successful language learners. Therefore, inspecting the relationship between these two in order to develop both metacognitive awareness and creativity seems to be justifiable and indispensable.

Within the spectrum of this study, the theoretical part was divided into two chapters; namely, metacognitive awareness and creativity. The first chapter aimed to provide a comprehensible summery of the major points within metacognition, such as definitions, components and sub-components, metacognitive awareness, metacognitive experiences, and a review of some of the previous research studies investigating the relationship between metacognition and creativity. Furthermore, the second chapter, first, discussed some theoretical concepts of creativity such as definitions and components. Second, the second chapter accentuated the importance of creativity in education, teachers' beliefs on creativity, and

creativity in the EFL teaching/learning context. As for the practical part, which is the third chapter, it encompassed data description, analysis, and interpretation.

Most essentially, in order to collect the necessary data, two data gathering tools were selected. A structured questionnaire, which was administered to (48) EFL master one and master two students from both specialties (Sciences of the Language and Literature and Civilization), and a semi-structured interview conducted with (3) EFL master teachers, who teach the specific case study under investigation, at Biskra University. The data collected via the two data collection instruments aimed to answer the research questions and confirm or disconfirm the hypotheses.

Based on the results obtained from the teachers' interviews and the students' questionnaire, it is deduced that both EFL master teachers and students emphasize the importance of metacognitive awareness and creativity in the EFL classroom. Moreover, the interviewees and participants agreed that there might exist a relationship between students' metacognitive awareness and creativity; in addition, students believed that metacognitive awareness promotes creativity. Correspondingly, students' self-ratings of their metacognitive awareness and their creativity indicated that they believe themselves to be metacognitively aware and creative. Nonetheless, students had contradictory perceptions on creativity; they claimed that their creativity comes from unconscious processes and not from careful planning and forethought, yet they agreed that creativity is related to metacognitive awareness. Concerning this matter, teachers mentioned that some students lack self-awareness, metacognitive awareness, and responsibility in their learning; thus, we assumed that the contradiction might be either due the unawareness of participants, or due to the individualistic perspectives that participants view and process creativity from.

Other points discussed in the interviews with teachers were their criteria of judging a creative product or a creative students, which the teachers agreed that creative products ought

to be new, unique, original, and free of any plagiarism. Likewise, they noted that for a student to be assessed as creative, he/she has to be consciously aware, responsible, original, and passionate. Another important point was the reasons behind the lack of creativity in the Algerian EFL classroom; teachers mentioned that this lack is attributable to the fact that creativity is not prioritized in our educational contexts and that quantity is favored over quality. More specifically speaking, the teaching pedagogies and methods employed encourage unconscious and route learning, the majority of teachers are not trained and not creative, the classrooms are overcrowded, and the curriculums are overloaded and not designed with the intention of fostering learners' creativity. Last of all, teachers' answers were inconclusive regarding whether "school kills creativity" or not; it is true that the learning contexts are encouraging and motivating; however, if school does kill creativity there would be no creative individual in our society.

In conclusion, the research questions have been answered and the research hypothesis have been confirmed; however, it is pivotal to acknowledge that accurate and in-depth further research concerning the relationship between metacognitive awareness and creativity is necessary, in order to reach better understanding and confirm the perceptions and beliefs accumulated.

Limitations of the Study and Suggestions for Further Research

In the process of conducting any research project, researchers inevitably face different obstacles and limitations that constrain and hinder the progress of their research. The present study have faced certain limitations and obstacles. Chiefly, the shortage of time due to the exceptional circumstances of the Covid 19 pandemic; in addition, the complex nature of the variables under investigation and the various theories and models discussing their attributes urged the researcher to shift from a correlational design to a descriptive one. Since investigating

the correlation between such multifaceted concepts requires enough period of time, extensive reading, and in-depth and accurate testing to obtain valid and reliable results.

Furthermore, the questionnaire's and the interviews' feedback and answers about creativity and metacognitive awareness were limited and hypothetical since they were merely attitudes and perceptions and they could not be as accurate and reliable as actual testing. Another important limitation that the researcher has faced during data collection was the type of tests used within the questionnaire; since the researcher used self-report tests, the answers obtained could not be valid and reliable since students might have either exaggerated or understated their abilities. Lastly, EFL teachers did not have enough free time; thus, the researcher was able to, only, interview three teachers and the interview was not piloted. In conclusion, despite the aforementioned limitations, we managed to collect insightful and thorough data, upon which we would base further research; in addition, the data gathered enabled us to answer our research questions and confirm our hypothesis.

Based on the achieved findings and the limitations mentioned above, we will propose a number of suggestions for further research. First, the nature of this study requires precise and exact data obtained through valid, reliable, and appropriate tests measuring metacognitive awareness and creativity. Second, another factor influencing the validity and reliability of data is the type of tests used to measure metacognitive awareness and creativity; it is agreed that self-report and self-rate tests are not accurate; thus, researchers ought to use tests that assess and test participants indirectly. Third, creativity is a broad subject of research that encompasses controversial and various theories and assumptions; therefore, in order to achieve better results, one ought to be as-specific-as-possible (selecting a particular appropriate case study, investigating either domain-general or domain specific creativity, and selecting a specific theory or assumption to either prove or disprove). The present study aimed to explore and describe teachers' and students' perceptions and attitudes on the relationship between EFL

master students' metacognitive awareness and creativity, further research should follow different research methods; correlational or experimental.

Recommendations and Pedagogical Implications

The present investigation, which accentuated and explored the relationship between metacognitive awareness and creativity in the case of EFL master students, resulted in various theoretical and empirical findings. Based on those findings, we will suggest some recommendations for EFL students, EFL teachers, and policy makers, for the purpose of shedding light on the importance of metacognitive awareness as well as creativity in EFL contexts; in addition, in order to develop students' metacognitive awareness and foster their creativity.

To begin with, based on this research findings and results, we propose a number of suggestions for EFL students. The suggestions are in regard of the importance of time management, conscious and metacognitive awareness, as well as creativity. First, effective time management permits students to accomplish more in less time, without wasting their time, energy, and enthusiasm. Time management is a necessity for students, especially master students since they have designed objectives and goals to achieve. Second, students are required to attempt to know themselves. Despite the fact that students might have difficult time questioning themselves, they should at least be consciously aware about their potentials, lacks, and needs as well as the process of their learning; hence, this consciousness would allow them to recognize special attributes like creativity. Third, metacognitive awareness is one of the important qualities that master students, as adult learners, are supposed to possess. Metacognitive awareness is a skill to be learned and developed by being responsible, attentive, and serious about the learning process.

The fourth suggestion is that students should not allow the obstacles and the non-encouraging context to constrain their creative potential, they ought to be brave and passionate enough to

manifest their creative potential and contribute their ideas and thoughts without waiting for anyone else to nurture their creativity or to motivate them.

In addition, we propose a number of suggestions for EFL teachers concerning the necessity to foster and develop their learners' metacognitive awareness and creativity. First of all, EFL teachers are supposed to select specific teaching approaches and methods that best suit the desired outcomes and objectives, with taking into account developing students' conscious awareness and fostering their creativity. Second, one of the important factors influencing the process of nurturing students' creativity is tolerance, flexibility, and acceptance. EFL teachers should tolerate students interventions and suggestions, likewise EFL classrooms are supposed to be students-centered not teacher-centered. Third, EFL teachers ought to attempt to identify creative students and develop their potentials. Since the curriculums are overloaded and classrooms are overcrowded, teachers should at least acknowledge students' creativity and encourage them to manifest it. Fourth, metacognitive awareness is not a requirement for students only; hence, teachers ought to teach consciously and be more reflective on their teaching, and renovate their teaching approaches, methods, and materials continuously. The fifth and last suggestion is that, primarily, non-creative teachers could not foster students' creativity; therefore, teachers should allow themselves to be creative, which would encourage students to manifest theirs as well.

At last, a number of suggestions is dedicated to the administrators and the policy makers. Firstly, it is necessary to prioritize creativity and to design curriculums, which aim to acknowledge, motivate, foster, and reward EFL students' creativity. Second, quality should be favored over quantity. Third, the curriculums and schedules should be more liberated and classrooms should be less crowded in order to allow teachers to be more involved with their students, notice their lacks and needs and thus attempt to develop their metacognitive awareness, their creativity, and other important skills.

References

Abraham, A. (2016). Gender and creativity: An overview of psychological and neuroscientific literature. *Brain imaging and behavior, 10*(2), 609-618.

Adger, D. (2019). Language unlimited: The science behind our most creative power. Oxford University Press, USA.

Akturk, A. O., & Sahin, I. (2011). Literature review on metacognition and its measurement. *Procedia-Social and Behavioral Sciences, 15*, 3731-3736.

Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of personality and social psychology, 45*(2), 357.

Amabile, T. M., & Pillemer, J. (2012). Perspectives on the social psychology of creativity. *The Journal of Creative Behavior, 46*(1), 3-15.

Anderson, N. J. (2003). Metacognitive reading strategies increase L2 performance. *The Language Teacher, 27*, 20-22.

Antonietti, A. (1997). Unlocking creativity. *Educational Leadership, 54*, 73-75.

Armbruster, B. B. (1989). "Metacognition in creativity" in Handbook of creativity. Aronson, J., Fried, C. B., and Good, C. (2002). *Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence*. J. Exp. Soc. Psychol. 38, 113–125. doi: 10.1006/jesp.2001.1491

Baer, J., & Kaufman, J. C. (2008). Gender differences in creativity. *The Journal of Creative Behavior, 42*(2), 75-105.

Balçıkanlı, C. (2011). Metacognitive awareness inventory for teachers (MAIT). *Electronic Journal of Research in Educational Psychology, 9*(3).

Baucus, M. S., Norton, W. I., Baucus, D. A., & Human, S. E. (2008). Fostering creativity and innovation without encouraging unethical behavior. *Journal of Business Ethics, 81*(1), 97-115. DOI 10.1007/s10551-007-9483-4

Bayne, T., Brainard, D., Byrne, R. W., Chittka, L., Clayton, N., Heyes, C., ... & Webb, B. (2019). What is cognition?. *Current Biology, 29*(13), R608-R615.

Beghetto, R. A., & Kaufman, J. C. (2014). Classroom contexts for creativity. *High Ability Studies, 25*(1), 53-69.

BELKHIR, S. (2020). CHAPTER ONE COGNITION AND LANGUAGE LEARNING: AN INTRODUCTION SADIA BELKHIR. Cognition and Language Learning, 1.

Bereczki, E. O., & Kárpáti, A. (2018). Teachers' beliefs about creativity and its nurture: A systematic review of the recent research literature. *Educational Research Review, 23*, 25-56. doi:10.1016/j.edurev.2017.10.003

Blake, C. (2021). Resilient Educator. Retrieved from https://resilienteducator.com/classroom-resources/classroom-metacognition/

Bonawitz, E., Shafto, P., Gweon, H., Goodman, N.D., Spelke, E., & Schulz, L. (2011). The double-edged sword of pedagogy: Instruction limits spontaneous exploration and discovery. *Cognition, 120*(3), 322–330. DOI: 10.1016/j.cognition.2010.10.001

Bransford, John D., Brown Ann L., and Cocking Rodney R. (2000). *How people learn: Brain, mind, experience, and school*. Washington, D.C.: National Academy Press.

Brinck, I., & Liljenfors, R. (2013). The developmental origin of metacognition. *Infant and Child Development, 22*(1), 85-101.

Brown, A. L. (1987). Metacognition, executive control, self-regulation, and other more mysterious mechanisms. In F. E. Weinert& R. H. Kluwe (Eds.), *Metacognition, motivation, and understanding* (pp. 65-116). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Çakici, D. (2018). Metacognitive Awareness and Critical Thinking Abilities of Pre-Service EFL Teachers. *Journal of Education and Learning, 7*(5), 116-129.

Caratozzolo, P., Alvarez-Delgado, A., & Hosseini, S. (2020, April). Metacognitive Awareness and Creative Thinking: the capacity to cope with uncertainty in engineering. In 2020 IEEE Global Engineering Education Conference (EDUCON) (pp. 638-643). IEEE.

Carter, R. (2004). *Language and creativity: The art of common talk*. New York, NY: Routledge.

Cao, L., & Nietfeld, J.L. (2007). College students' metacognitive awareness of difficulties in learning the class content does not automatically lead to adjustment of study strategies. *Australian Journal of Educational and Developmental Psychology, 7,*

Chamot, A. U. (2004). Issues in language learning strategy research and teaching. *Electronic journal of foreign language teaching, 1*(1), 14-26.

Chan, S., & Yuen, M. (2014). Personal and environmental factors affecting teachers' creativity-fostering practices in Hong Kong. *Thinking Skills and Creativity, 12*, 69-77. doi.org/10.1016/j.tsc.2014.02.003

Chen, M. H., Gualberto, P.J., & Tameta, C.L. (2009). The Development of Metacognitive Reading Awareness Inventory. *TESOL Journal, 1*,

Cho, H., Pemberton, C. L., & Ray, B. (2017). An exploration of the existence, value and importance of creativity education. *Current Issues in Education, 20*(1). Retrieved from

http://cie.asu.edu/ojs/index.php/cieatasu/article/view/1537

Cherry K. (2019). Cognitive Psychology: The Science of How We Think: verywell mind. Retrieved from https://www.verywellmind.com/cognitive-psychology-4157181

Craft, A. (1999). Creative development in the early years: some implications of policy for practice. *Curriculum journal, 10*(1), 135-150.

Craft, A. (2003). An analysis of research and literature on CREATIVITY IN EDUCATION

Craft, A. (2005). *Creativity in schools: tensions and dilemmas*. London: Routledge.

Craft, A. (2006). Fostering creativity with wisdom. *Cambridge Journal of Education, 36*(3), 337-350.

Cropley, A. J. (2000). Defining and measuring creativity: Are creativity tests worth using? *Roeper Review, 23*, 72-79

Cropley, A. J. (2001). *Creativity in Education and Learning: A Guide for Teachers and Educators*. RoutledgeFalmer

Cropley, A. J., & Cropley, D. (2009). *Fostering creativity: A diagnostic approach for higher education and organizations*. Cresskill, NJ: Hampton Press.

Cross, D. R., & Paris, S. G. (1988). Developmental and instructional analyses of children's metacognition and reading comprehension. *Journal of educational psychology, 80*(2), 131.

Csikszentmihalyi, M. (1997). *Flow and the psychology of discovery and invention.* HarperPerennial, New York, 39.

Csóti, M. (2001). *Social awareness skills for children.* Jessica Kingsley Publishers.

de Acedo Lizarraga, M. L. S., & de Acedo Baquedano, M. T. S. (2015). How creative potential is related to metacognition. *European Journal of Education and Psychology, 6*(2).

Diakidoy, I. N., & Phtiaka, H. (2002). Teachers' beliefs about creativity. *Advances in psychology research, 15*, 173-188.

Djudin, T. (2017). Using metacognitive strategies to improve reading comprehension and solve a word problem. *Journal of Education, Teaching and Learning, 2*(1), 124-129.

Dufva, H. (1994). Language awareness and cultural awareness for language learners. *Hungarologische Beiträge, 2*, 19-32.

Durmuşçelebi, M., & Kuşuçuran, B. N. (2018). Students' Cognitive Awareness and Investigation of Critical Thinking Levels. *International Journal of Innovative Research in Education, 5*(4), 129-144.

Efklides, A. (2001). *Metacognitive experiences in problem solving.* In Trends and prospects in motivation research (pp. 297-323). Springer, Dordrecht.

Efklides, A. (2006). Metacognition and affect: What can metacognitive experiences tell us about the learning process?. *Educational research review, 1*(1), 3-14.

Ellis, G. (2000). Is it worth it? Convincing teachers of the value of developing metacognitive awareness in children. *Learner autonomy, teacher autonomy: Future directions,* 75-88.

Fayolle, A., Kyrö, P., Mets, T., & Venesaar, U. (Eds.). (2013). *Conceptual richness and methodological diversity in entrepreneurship research*. Edward Elgar Publishing.

Fehér, J. (2007). *Creativity in the language classroom*. UK: Retrieved from: https://www. teachingenglish. org. uk/article/creativity-language-classroom.

Fehér, J. (2015). From everyday activities to creative tasks. In A. Maley & N. Peachey (Eds.), *Creativity in the English language classroom* (pp. 64-72). London: British Council.

Ferrari, A., Cachia, R., & Punie, Y. (2009). Innovation and creativity in education and training in the EU member states: Fostering creative learning and supporting innovative teaching. *JRC Technical Note, 52374*, 64.

Flavell, J.H. (1979). Metacognition and cognitive monitoring: a new area of cognitive-developmental inquiry. *American Psychologist, 34*(10).

Gentner, D., & Goldin-Meadow, S. (Eds.). (2003). *Language in mind: Advances in the study of language and thought*. MIT press.

Georghiades, P. (2004). From the general to the situated: Three decades of metacognition. *International journal of science education, 26*(3), 365-383.

Goctu, R. (2017). Metacognitive strategies in academic writing. *Journal of Education in Black Sea Region, 2*(2), 82-96

Hawkins, D. L. (2021). Creativity Time: A Case Study of Adolescent Multidimensional Composition. (Doctoral dissertation, North Carolina State University, Raleigh, North Carolina, USA). Retrieved from https://repository.lib.ncsu.edu/bitstream/handle/1840.20/38721/etd.pdf?sequence=1

He, L. (2011). Metacognition in EFL pronunciation learning among chinese tertiary learners. *Applied Language Learning, 21*(1&2):1-27

Hennessey, M. G. (1999). Probing the Dimensions of Metacognition: Implications for Conceptual Change Teaching-Learning.

Hong, O., & Song, J. (2020). A componential model of Science Classroom Creativity (SCC) for understanding collective creativity in the science classroom. *Thinking Skills and Creativity, 37*, 100698. doi.org/10.1016/j.tsc.2020.100698

Inggårde, K. (2014). Creativity and EFL Learning : An empirical study in a Swedish upper-secondary school (Dissertation). Retrieved from http://urn.kb.se/resolve?urn=urn:nbn:se:mdh:diva-24884

Islas, S. Teaching Metacognition to Improve Writing.

Jackson, A. (2011). *The Cultural Awareness Journal: For those new to cultural awareness and those already on the journey*. Bloomington: AuthorHouse.

James, M. A. (2015). Managing the classroom for creativity. *Creative Education, 6*(10), 1032. DOI: 10.4236/ce.2015.610102

Jiménez, V., Puente Ferreras, A., Alvarado, J. M., & Arrebillaga, L. (2009). Measuring metacognitive strategies using the reading awareness scale *ESCOLA*.

Jia, X., Li, W., & Cao, L. (2019). The role of metacognitive components in creative thinking. *Frontiers in psychology, 10*, 2404.

Kabilan, M. K. (2000). Creative and critical thinking in language classrooms. *The Internet TESL Journal, 6* (6). Retrieved from http://iteslj.org/Techniques/Kabilan-CriticalThinking.html

Kaila, H. (2005). Democratizing schools across the world to stop killing creativity in children:

An Indian perspective. *Counseling Psychology Quarterly, 18*, 1-

6. doi:10.1080/09515070500099728

Kallio, H., Virta, K., & Kallio, M. (2018). Modelling the components of metacognitive

awareness. *International Journal of Educational Psychology,*

7(2), 94-122.

Kaplan, D. E. (2019). Creativity in education: Teaching for creativity development.

Psychology, 10(2), 140-147.

Karakaya, A. F., & Demirkan, H. (2015). Collaborative digital environments to enhance the

creativity of designers. *Computers in Human Behavior, 42*, 176-

186.

Kılınç, F. E. (2013). Investigation of the Relationship between Self-esteem and Metacognitive

Awareness Level of 9th Grade Students. *Procedia - Social and*

Behavioral Sciences, 106, 1622–1628.

doi:10.1016/j.sbspro.2013.12.183

Kurose, M. (2019). Becoming a more active and creative language learner with digital tools.

In Becerra, N., Biasini, R., Magedera-Hofhansl, H., & Reimão,

A. (Eds.), *Innovative language teaching and learning at*

university: a look at new trends, (pp. 63-71). Research-

publishing. net.

Lightbown, P., & Spada, N. (2006). *How languages are learned* (4th ed.). Oxford, UK:

Oxford University Press.

Lin, Y. S. (2011). Fostering creativity through education–a conceptual framework of creative

pedagogy. *Creative education, 2*(03), 149.

DOI:10.4236/ce.2011.2302

Metacognition (Flavell): Learning Theories. (2020) Retrieved from https://www.learning-theories.com/metacognition-flavell.html

Moran, S. (2010). Creativity in school. International handbook of psychology in education, 319-359.

Morar, L. L., Boștină-Bratu, S., & Negoescu, A. (2020). The Importance of Creativity in Foreign Language Acquisition. *Land Forces Academy Review, 25*(3), 217-222. DOI: 10.2478/raft-2020-0026

Metacognitive Awareness Inventory: Evidence-Based Teaching in Canvas. (2018). Retrieved from https://online.valenciacollege.edu/courses/36946/quizzes/160478?module_item_id=890682#:~:text=The%20Metacognitive%20Awareness%20Inventory%20is,learning%20skills%20across%20the%20disciplines.&text=%22The%20Secret%20of%20Self%2DRegulated%20Learning.%22%20Faculty%20Focu

Merriam-Webster. (n.d.). Cognition. In Merriam-Webster.com dictionary. Retrieved April 13, 2021, from https://www.merriam-webster.com/dictionary/cognition

Merriam-Webster. (n.d.). Metacognition. In Merriam-Webster.com dictionary. Retrieved April 14, 2021, from https://www.merriam-webster.com/dictionary/metacognition

Miholic, V. (1994). An inventory to pique students' metacognitive awareness of reading strategies". *Journal of Reading, 38* (1), 2-4.

Miller, G. (2017). Metacognitive awareness and reading strategy use: Investigating the intermediate level ESL students' awareness of metacognitive reading strategies (Thesis)

Nazarieh, M. (2016). A brief history of metacognition and principles of metacognitive instruction in learning. *BEST: Journal of Humanities, Arts, Medicine and Sciences, 2*(2), 61-64.

Newell, A., Shaw, J. C., & Simon, H. A. (1962). The processes of creative thinking. In Contemporary Approaches to Creative Thinking, 1958, University of Colorado, CO, US; This paper was presented at the aforementioned symposium..Atherton Press.

Nosratinia, M., & Zaker, A. (2014). Metacognitive Attributes and Liberated Progress: The Association Among Second-Language Learners' Critical Thinking, Creativity, and Autonomy. *SAGE Open*. Retrieved from https://doi.org/10.1177/2158244014547178

O'Flynn-Magee, K., Straus, E. J., Dhaliwal, A., Chande, S. R., Alreffi, B., Randhawa, P., ... & Khader, S. (2021). Creativity in a COVID-19 Virtual Learning Space. *Quality Advancement in Nursing Education-Avancées en formation infirmière, 7*(1)

Online Etymology Dictionary. (n.d.). Citation. In etymonline.com dictionary. Retrieved April 13, 2021, from https://www.etymonline.com/word/cognition

Papalazarou, C. (2015). Making thinking visible in the English classroom: Nurturing a creative mind-set. *Creativity in the English language classroom*, 37-43.

Peachey, N., & Maley, A. (2015). *Creativity in the English language classroom*. British Council.

Perfect, T. J., & Schwartz, B. L. (Eds.). (2002*). Applied metacognition*. Cambridge University Press.

Perry, M., & Collier, D. R. (2018). What counts as creativity in education? An inquiry into the intersections of public, political, and policy discourses. *Canadian Journal of Education/Revue canadienne de l'éducation, 41*(1), 24-43.

Piaget, J. (1952). *The origins of intelligence in children*. New York: International Universities Press.

Pintrich, P. R. (2002). The role of metacognitive knowledge in learning, teaching, and assessing. *Theory into practice, 41*(4), 219-225

Preiss, D.D., et al., Examining the influence of mind wandering and metacognition on creativity in university and vocational students, Learning and Individual Differences (2016), http://dx.doi.org/10.1016/j.lindif.2016.07.010

Read, C. (2015). Seven pillars of creativity in primary ELT. *Creativity in the English language classroom*, 29-36.

Rennick, C., & McKay, K. (2018). Componential theories of creativity: A case study of teaching creative problem solving. *Proceedings of the Canadian Engineering Education Association (CEEA).*

Robinson, K. (2006, February). Do schools kill creativity? [Video]. TED Conferences. https://www.ted.com/talks/sir_ken_robinson_do_schools_kill_creativity

Robinson, P. (Ed.). (2001). *Cognition and second language instruction*. Ernst Klett Sprachen.

Robert, E. F. (1993). *Human Motivation* 3rd ed, Colifornia Brooks.

Runco, M. A. (2007). A hierarchical framework for the study of creativity. *New Horizons in Education, 55*(3), 1-9.

Runco, M. A., Cramond, B., & Pagnani, A. R. (2010). Gender and creativity. In *Handbook of gender research in psychology* (pp. 343-357). Springer, New York, NY.

Runco, M. A., Johnson, D. J., & Bear, P. K. (1993). Parents' and teachers' implicit theories of children's creativity. *Child Study Journal*.

Schlesinger, P. (2007). Creativity: from discourse to doctrine? *Screen, 48*(3), 377–387. doi:10.1093/screen/hjm037

Sawyer, R. K. (2011). *Explaining creativity: The science of human innovation*. Oxford university press.

Schmidts, C. (2021). Affective regulation of cognitive conflict (Doctoral dissertation, Universität Würzburg).

Schraw, G. (2000). Assessing metacognition: Implications of the Buros symposium. In G. Schraw & J. Impara (Eds.), *Issues in the measurement of metacognition* (pp. 297- 321). Lincoln, NE: Buros Institute of Mental Measurements.

Schraw, G. (2001). Promoting general metacognitive awareness, H.J. Hartman (Eds.), Metacognition learning and instruction (pp. 3-16). USA: Kluwer Academic Publisher.

Schraw, G., & Dennison, R. S. (1994). Assessing metacognitive awareness. *Contemporary educational psychology, 19*(4), 460-475.

Ševečková, M. (2016). Creativity in foreign language teaching. *The Journal of Education, Culture, and Society, 7*(2), 180-188.

Shaheen, R. (2010). Creativity and education. *Creative Education, 1*(03), 166.

Shaughnessy, M. F., Veenman, M., & Kennedy, C. K. (2008). Meta-cognition: A recent review of research, theory, and perspectives.

Shimamura, A. P. (2000). What is metacognition? The brain knows. *The American Journal of*

        Psychology, 113(1), 142.

Shoghi S. & Ghonsooly B. (2015). The Nature of Metacognitive Awareness in Foreign

        Language Learners and Its Interaction with Creativity. *Journal*

        of Language Teaching and Research. 6 (5), 1051-1057. doi

        http://dx.doi.org/10.17507/jltr.0605.18

Simonton, D. K. (2000). Creativity: Cognitive, personal, developmental, and social aspects.

        American psychologist, 55(1), 151.

Siqueira, M. A. M., Gonçalves, J. P., Mendonça, V. S., Kobayasi, R., Arantes-Costa, F. M.,

        Tempski, P. Z., & de Arruda Martins, M. (2020). Relationship

        between metacognitive awareness and motivation to learn in

        medical students. *BMC Medical Education, 20*(1), 1-10.

Smith, B. E. (1900). The Century Dictionary and Cyclopedia (Vol. 9). Century Company.

Stepanek, L. (2015). A creative approach to language teaching: A way to recognise,

        encourage and appreciate students' contribution to language

        classes. In A. Maley & N. Peachey (Eds.), *Creativity in the*

        English language classroom (pp. 98–103). London: British

        Council.

Stephens, K. R., Karnes, F. A., & Whorton, J. (2001). Gender differences in creativity among

        American Indian third and fourth grade students. *Journal of*

        American Indian Education, 57-65.

Sternberg, R. J. (2009). Domain-generality versus domain specificity of creativity. In P.

        Meusburger, J. Funke, & E. Wunder (Eds.), *Milieus of*

        creativity: An interdisciplinary approach to spatiality of

creativity (pp. 25-38). Dordrecht, The Netherlands: Springer.
doi:10.1007/978-1-4020-9877-2_3

Suciu, T. (2014). The Importance of Creativity in Education. Bulletin of the Transilvania University of Brasov. *Economic Sciences. Series V, 7*(2), 151.

Squier K.L. (2021). Metacognitive Awareness: A Construct-Based Approach (CBA) to Implementing Comprehensive School Counseling Programs. Retrieved from https://excellenceinschoolcounseling.com/develop-a-cba/define-student-excellence-overview/self-knowledge-overview/metacognitive-awareness/

Tan, L., Lee, S., Ponnusamy, L., Koh, E., & Tan, K. (2016). Fostering Creativity in the Classroom for High Ability Students: Context Does Matter. *Education Sciences, 6*(4), 36. doi:10.3390/educsci6040036

Thamraksa, C. (2005). Metacognition: A key to success for EFL learners. *BU Academic Review, 4*(1), 95-99.

Thenmozhi, C. (2019). Models of Metacognition. *Shanlax International Journal of Education, 7*(2), 1-4.

Tomic, W. (1993). Behaviorism and cognitivism in education. *Psychology, 30* (3/4), 38-46.

Torrance, E. P. (1995). Why fly? Cresskill, NJ: Hampton Press. West, A., Martindale, C., & Sutton-Smith, B. (1985). Age trends in the content of children's spontaneous fantasy narratives. Genetic, Social, and General Psychology Monographs, 111, 389–405.

Turner-Bisset, R. (2007). Performativity by stealth: A critique of recent initiatives on creativity. *Education 3–13, 35*(2), 193-203.

Wang, C. J., & Tsai, C. Y. (2014). Managing innovation and creativity in organizations: an empirical study of service industries in Taiwan. *Service Business, 8*(2), 313-335.

Weisberg, R. (1993). *Creativity: Beyond the myth of genius*. WH Freeman

Wenden, A. L. (1986). What do second-language learners know about their language learning? A second look at retrospective accounts1. *Applied linguistics, 7*(2), 186-205.

Wenden, A. L. (1998). Metacognitive knowledge and language learning1. *Applied linguistics, 19*(4), 515-537.

Wiezbicki-Stevens, K. (2009). Metacognition: Developing self-knowledge through guided reflection.

Whitney, W. D. (Ed.). (1895). The Century Dictionary and Cyclopedia: An Encyclopedic Lexicon of the English Language and a Pronouncing and Etymological Dictionary of Names in Geography, Biography, Mythology, History, Art, Etc., Together with Atlas of the World (Vol. 1). Century Company.

Wright, A. (2015). Medium: Companion or slave. *Creativity in the English language classroom*, 14.

Wyse, D. (2009) & Dowson P. *The Really Useful Creativity Book*. Milton Park, Abingdon: Routledge 2 Park Square.

You, Y. L., & Joe, S. G. (2001). Investigating the Metacognitive Awareness and Strategies of English-Majored University Student Writers.

Zhu, C., Wang, D., Cai, Y., & Engels, N. (2013). What core competencies are related to teachers' innovative teaching?. *Asia-Pacific Journal of Teacher*

Education, 41(1), 9-27. DOI:

10.1080/1359866X.2012.753984?journalCode=capj20

Appendices

Students' Questionnaire on the Relationship between Students' Metacognitive

Awareness and Creativity

Dear Student,

This questionnaire is an attempt to collect data for the accomplishment of a master dissertation on "The Relationship between Students' Metacognitive Awareness and Creativity." Therefore, you are kindly requested to fill in it by ticking (√) the appropriate answer(s). Be sure that your answers will be anonymous and will be used for research purposes only.

Thank you for your time, effort and collaboration.

By Nour Abdelaidoum

Supervised by: Pr. Saliha Chelli

Academic year: 2020/2021

Section One: General Information

Q1: For how many year have you been studying English?

☐   11 years

☐   More than 11 years

Q2: Are you a Master One or Master Two student?

☐   M1

☐   M2

Q3: Choosing English as your major in the University of Biskra was because of:

☐   Your passion and interest in the language.

☐   Your parents', friends', or someone else's advice.

☐   You were good at English in high school.

☐   Lack of a better choice

Q4: Describe your learning experience for the past 4/5 years (Choose one answer for each of the following statements).

	Strongly Disagree	Agree	Not sure	Agree	Strongly Agree
Beneficial					
Interesting/Exciting					
Inspiring					
Challenging					

Waste of effort and time				
Mentally stimulating				

Section Two: Metacognitive Awareness

Definition: Metacognitive awareness means being conscious and attentive to one's own knowledge, strengths, weaknesses, and challenges in the process of learning.

It also means stepping back on one's learning process, observing and monitoring one's self, and questioning the strategies one is using to carry out different tasks, and checking whether the desired outcomes are being met or not.

Q1: Tick the appropriate answer.

	True	False
1- I am aware of my strengths and skill in learning.		
2- I am aware of my weaknesses and my incompetencies in learning.		
3- I question and evaluate my learning process.		
4- I use my intellectual strengths to compensate for my weaknesses.		
5- I try to find strategies to help me solve problems in learning.		
6- I use the strategies for a purpose and I set goals to achieve.		
7- I think about what I need to learn before carrying out a given task.		
8- I make a plan to follow before starting any task.		
9- I monitor my plan and my progress to identify potential problems.		
10- I adjust my plan and look for better strategies when the ones I have been using are ineffective.		
11- I use different strategies according to the task or activity.		
12- I can know if I did well or no after finishing a test or an exam.		

13- I can recognize which information is important to learn and which is irrelevant.		
14- I assess my learning strategies and judge my learning outcomes.		
15- I am capable of motivating myself to learn.		
16- When I read, I take pauses and reread to check my comprehension.		
17- I try to write down new information with my own words.		
18- I pay close attention to the instructions before undertaking a task.		
19- I manage my time to best achieve my objectives and goals.		
20- I regularly ask myself if I am doing well or no while learning something new.		

Section Three: Creativity

Definition: creation refers to the process of producing or generating something that is new and original, but also appropriate and useful. Be it an idea, a solution to a problem, an invention…

Q1: Do you believe yourself to be (tick the relevant answer(s).

☐   Imaginative

☐   Original

☐   Creative

Q2: Choose the relevant answer for each statement.

	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
1- I believe I am a creative person.					
2- I am regularly engaged in creative type work.					
3- I regularly use my creative skill in classroom activities.					
4- My creativity comes from unconscious processes and inspiration.					

5- I feel that new ideas possess me and guide me to completion almost automatically.					
6- I believe that creativity comes from hard work and persistence.					
7- My creativity comes from careful planning and forethought.					
8- I often let my mind wander to come up with new ideas.					
9- I typically create new ideas by elaborating and rearranging or by combining existing ideas.					
10- I usually critically evaluate existing products to see how I can improve them.					
11- I am always fantasizing about how to do everyday things differently.					
12- I reject or ignore conventional ideas on purpose in order to come up with new ones.					

Section Four: The Relationship between Metacognitive Awareness and Creativity.

Q1: Do you believe that metacognitive awareness is a characteristic of skilled and proficient

language learners?

☐   Yes

☐   No

Q2: Do you believe that creativity is important in the EFL classroom?

☐   Yes

☐   No

Q3: Do you think there is a relationship between metacognitive awareness and creative performance?

☐ Yes

☐ No

If yes, what type of relationship you think might be between metacognitive awareness and creativity?

☐ Metacognitive awareness promotes creativity.

☐ Metacognitive awareness impedes creativity.

Teachers' Interview on the Relationship between Students' Metacognitive Awareness and Creativity

Question 01: How long have you been teaching English at university? How long have you been teaching master levels?

Question 02: Do you think that some EFL master students are unaware of themselves and of their learning process, and they do not attempt to plan, monitor, evaluate, and adjust their learning?

Question 03: How do you identify a creative student/ a creative product?

Question 04: How do you think the relationship between students' metacognitive awareness and creativity would be?

Question 05: What kind of influence could metacognitive awareness have on EFL Master Students?

Question 06: What do you think are the reasons for the lack of creativity in the Algerian EFL classroom?

Question 07: Does this incite you to adapt certain methods or techniques in order to foster your students' creativity?

Question 08: What do you think of the statement "school kills creativity?"

الملخص

كان الغرض من هذه الدراسة هو التحقيق في العلاقة بين الوعي ما وراء المعرفي والإبداع في إطار تعلم اللغة الإنجليزية في جامعة محمد خيضر بسكرة، من خلال استكشاف ووصف مواقف وتصورات أساتذة وطلبة الماستر للغة الإنجليزية كلغة أجنبية بشأن المشكلة قيد الدراسة ألا وهي تحديد ما إذا كان كل من الأساتذة والطلبة يعتقدون أن الوعي ما وراء المعرفي والإبداع مرتبطان أم لا. من أجل التحقيق في ذلك تم استخدام الأسلوب المختلط لجمع البيانات الكمية والنوعية للإجابة على أسئلة البحث والتحقق من صحة فرضية البحث التالية: يعتقد طلاب ماستر اللغة الإنجليزية كلغة أجنبية أن هناك علاقة بين الوعي ما وراء المعرفي والإبداع. لهذا الغرض، تم إجراء استبيان منظم لعينة من 48 طالب في اللغة الإنجليزية كلغة أجنبية بالإضافة إلى اجراء مقابلات مع ثلاثة من أساتذة ماستر للغة الإنجليزية كلغة أجنبية. أظهرت النتائج التي تم الحصول عليها أن كلا من الأساتذة والطلبة متفقون على ارتباط الإبداع والوعي وراء المعرفي. لذلك، بناءً على النتائج، تم رفض فرضية العدم لصالح الفرضية البديلة. ومع ذلك، كشفت إجابات الطلاب أن الغالبية منهم يعتقدون أن إبداعهم يصدر وينشأ من عملية غير واعية، رغم زعمهم أن الوعي ما وراء المعرفي يعزز الإبداع. بذلك استنتجنا أن وجهات نظر الطلبة إلى عملية الابداع كانت إلى حد ما متناقضة. وبالتالي، هناك حاجة الى مزيد من البحث المعمق والدقيق لدراسة ماهية العلاقة بين الوعي ما وراء المعرفي والإبداع.