People's Democratic Republic of Algeria

Ministry of Higher Education and Scientific Research

8 MAI 1945 UNIVERSITY / GUELMA　　　　جامعة 8 ماي 1945 / قالمة

FACULTY OF LETTERS AND LANGUAGES　　كلية الآداب و اللغات

DEPARTMENT OF LETTERS & ENGLISH LANGUAGE قسم الآداب و اللغة الانجليزية

Option: Linguistics

Raising Learners' Awareness of the Use of

Mind Mapping Software "Mind42" to Enhance

Creativity in Writing: The Case of Second Year Students at the

University of 8 Mai 1945, Guelma.

A Dissertation Submitted to the Department of Letters and English Language in Partial

Fulfillment of the Requirements for the Degree of Master in Language and Culture

Candidate: Aya GUEMRICHE　　　　　　　**Supervisor:** Mrs.Mounya ABDAOUI

　　　　　　　　　　　　　　　　　　　　　Co-Supervisor: Mrs. Kawther HIMOURA

BOARD OF EXAMINERS

Chairwoman: Mrs. Djahida BENYOUNES　(M.A.A)　　　**University of 8 Mai 1945 Guelma**

Co-Supervisor: Mrs. Kawther HIMOURA　(M.A.B)　　　**University of 8 Mai 1945- Guelma**

Examiner: Miss Amina EL AGGOUNE　(M.A.B)　　　**University of 8 Mai 1945- Guelma**

July 2019

I

Dedication

I dedicate this work to

My parents and my husband: my father Guemriche Keblouti, my mother Nassira, and my husband Boubaker Dali, the source of my success and hapiness in life, May Allah bless all of them,

My Brother Ilyes and My Sister Lina,

My Extended family,

All my friends with whom I shared the University Journey.

II

Acknowledgment

First of all, all praise and gratitude is to Allah who gave me the power, health, and energy to bring this work to light.

I would like to thank my supervisor Mrs. Abdaoui Mounya for her help and support. I would like to express my special and hearty gratitude to Mrs. Himoura Kawther my Co-supervisor who guided this research and gave me her time and expertise. I thank her a lot for her help, encouragement and understanding.

My special thanks go to the jury members for their effort and precious time to read this work.

Finally, I am really grateful to all teachers and for Second year learners of English who collaborated in answering the questionnaires.

III

Abstract

This research aims to investigate the role of mind mapping software "Mind42"in enhancing students' writing creativity. This study is designed to assess the hypothesis if the use of Mind mapping software technique will improve students' writing creativity. To achieve the objectives of the study, a descriptive qualitative method was followed. In order to collect data, two questionnaires were administered to both teachers and students. The first one was submitted to 114 students of second year students of English in the Department of English, University of 8 Mai 1945, Guelma. The second one was submitted to 18 teacher of written expression. After analyzing the obtained data of the present study, it revealed that Mind Mapping Software is a helpful and effective technique in the teaching-learning process. It can positively improve and develop learners' writing creativity. Hence, we highly recommend teaching and learning writing through using new and effective techniques.

Key Terms: Mind Mapping, Study, Technique, Software, Writing, creativity.

IV

List of Tables

V

List of Figures

VI

List of Abbreviations

EFL: English as a Foreign Language

Q: Question

Para. : Paragraph

VIII

Contents

General Introduction

Writing is considered as a difficult skill that foreign learner has acquired in his/ her learning process; it is an essential skill and a challenging process. Writing is an important skill since it helps learners give more information, ask questions, and exchange opinions. Most foreign language learners face problems to enhance their writing creativity, mind mapping may help them improve their writing creativity and allow them to create a visual image to enhance their learning via using images and colors for emphasis or facilitate organization. Learners have the chance to be more creative in their learning; they will be effectively engaged in writing creativity. In addition mind mapping softwares can be used as new tools to help learners create new ideas, concepts, and acquire new ways to write independently and more freely. Thus, students or learners creativity can be improved.

1. Statement of the Problem

Most learners of foreign languages face problems in their writing skills progress.It seems as a challenging process for them. We notice that most second year students of foreign languages, in department of English, at the university of 08 Mai 1945, Guelma, are suffering from the problem of being more creative mainly in the written expression module. These obstacles caused by many factors, mainly the lack of using new ways and methods to motivate students being creative and independent writers. So, The use of mind mapping software "mind42" may help students creativity.

In this research we try to help EFL learners to enhance their writing creativity. Hence our research tackles the following question:

Is mind mapping software "Mind42" effective tool that help in raising learners' writing creativity ?

2. Aims of the Study

Students` writing creativity is one of the essential skills that the English language learner should master. This study is designed to achieve the following aims:

1/ To encourage students to be creative in their writing.

2/ To raise students`awareness of using mind-mapping software "Mind42" in order to increase creativity in writing.

3. Research Hypothesis

Mind mapping softwares are important techniques that are used to encourage creativity and save time. According to that we hypothesize: If students use mind mapping software "Mind42", their writing creativity would increase (H 1).

The null hypothesis implies that no relation between the two variables:

If students use mind mapping software "Mind42", their writing creativity would not increase (H 0).

4. Research Methodology and Design

4.1. Research Method

In order to confirm the hypothesis that is stated above, we use the quantitative descriptive method, through which students' and teachers' questionnaire are going to be handled as means of collecting data.

4.2. Population of the Study

This study targets second year students of English at the department of English at Guelma University. We select the sample randomly, we select second year students as a population of the study , because they are more aware than first year students of English , also they are more familiar with written expression module and know more about the writing process than the previous year . So, they suppose to use new, organized and fruitful ideas.

4.3. Data Gathering Tools

Students' and teachers' questionnaire are used to test the research hypothesis, it would provide us with several and worthy information about learners and teachers capacities to enhance the writing skill , knowing new writing techniques , and writing creativity.

5. Structure of the Dissertation

Our dissertation is divided into three chapters. The first chapter introduces "writing creativity", background studies about the writing skill, description of writing, its different aspects, concepts, approaches to teaching writing inside and outside the classroom and, creativity in writing . Chapter two, is entitled "The Use of Mind Mapping Software "Mind 42" to Raise Creativity in Writing"; at first we talk about mind mapping in general , its stages, laws and how can we use it in education , then we move on to the definitions of mind mapping software in general, then mind mapping software "Mind42", and how can we use it to raise students' writing creativity. Chapter three, describes and analysis the research questionnaires. We analyze second year students' questionnaire and teachers' questionnaire. Then, data obtained from the two questionnaires is fully discusses. Finally, we state some pedagogical implications as well as research perspectives and limitations.

CHAPTER ONE

Writing Creativity

Introduction

Learning a foreign language requires the mastery of its four skills: listening, speaking, reading and writing. The writing skill is one of the most important skills that needs to be mastered by students. It is viewed as the most complex and important process that needs cognitive abilities to recognize and understand some parts or pieces of languages to produce a qualified writing. In this chapter we talk about previous definitions of the writing skill, writing components, stages of writing, three main approaches of teaching writing as a skill, and finally we discuss writing and other skills, as speaking and reading.

1.1. Definition of Writing

The writing skill is considered as the last skill that learners' acquire in their learning process. As Hamp and Heasly (2006, p. 2) argued, writing "is accepted as being the last language skill to be acquired for native speakers of the language as well as for foreign/ second language learners" (as cited in Tuan, 2010). According to Tribble (1996, p. 3), writing in language teaching is "a language skill which is difficult to acquire". Also, it "is not a skill that is readily picked up by exposure" (Tribble, 1996, p. 11). However, this difficult skill can be learned and acquired by everyone as Langan (2012) stated " writing is a skill, and like most other skills, such as typing, driving, or cooking, it can be learned"(p. 9).

Crystal (1999, p. 214) claimed that "writing is not a merely mechanical task, a simple matter of putting speech down on paper. It is an exploration in the use of the graphic

potential of a language a creative process an act of discovery. '' This means that writing is not simple as it looks like, it is a process that needs a great focus on what it should be said on a topic, using a creative way of using a language, skills and techniques in order to express a viewpoint.

Byrne (1979, p. 1) argued that "writing is clearly much than the production of graphic symbols, just as speech is more than the production of sounds". Therefore, the meaning in writing is highly and strongly important. Also, he added that "when we write we use graphic symbols that are letters or combinations of letters which relate to the sounds we make when we speak" (Byrne 1979, p. 1). That is to say, writing is an adoption process to translate the sounds made during speaking by combined letters, forming understood words, and coherent sentences.

Lado (1961, p. 248) as well viewed writing as a means to represent thoughts in foreign language, they have to be down in a speech respecting all the rules of writing and using lexical items related to these thoughts as he says "we mean by writing in a foreign language the ability to use structures, the lexical items, and their conventional representation in ordinary matter of fact writing". Furthermore, writing is a difficult issue needs consciousness and awareness, as White and Arndt assumed:

Writing is far from being a simple matter of transcribing Language into written

symbols: it is a thinking process in its own right. It demands conscious intellectual

effort which usually has to be sustained over a considerable effort of time. (1991, p. 3)

Hedge (2000, p. 302) argued that writing is the output of a constructing process by using strategies and step by step it becomes a text. Moreover, improving the writing skill

over time for EFL is important not only in learning process or in the study period but also in future career as Glazier (1994, p. 3) claimed "being able to write in English is essential in college, and it probably will be an asset in your career" (as cited in Tuan, 2010, p. 81).

Based on the definitions above, it can be stated that the writing skill is a complex activity in producing a qualified writing. Also, it is an effort to express the writer's thinking, feeling, or ideas in the written form by considering writing aspects and writing stages to be clearly understood by the readers.

1.2. Components of Writing

The writing process depends largely on different components or mechanics which are:

1.2.1. Punctuation

Seely(1998, p. 226) has defined the term punctuation as follows "punctuation is a combination of knowing a number of fixed rules, and applying a series of rather looser conventions to your own writing style". Therefore, punctuation marks have a crucial important role in the writing process. As Murry and Hughes (2008) argued, "a well punctuated and capitalized piece of writing should make the work easier to read and understand and will therefore help to make a more favorable impression on readers' work". Thus, punctuation marks make it easier for readers to read your work and facilitate understanding.

1.2.2. Spelling

Is one of the factors which need to be taken into account by learners while they write, because it is an important aspect that teachers put into consideration when they evaluate or correct student work. Harmer (2007, p. 325) argued that incorrect spelling does not often

prevent the understanding of a written message, it can adversely affect the reader's judgment. So, correct spelling gives one's work importance and credibility.

1.2.3. Grammar

It is a key element in writing as a whole system of communication not just as language. It is defined in Oxford Dictionary (2018) as the whole system and structure of a language or of languages in general, usually taken as consisting of syntax and morphology and sometimes also phonology and semantics. Brooks and Penn (1970) argued that the most important thing in writing, we must understand the structure of the language, what the parts of speech do, how the words relate to one another, what individual words mean, and the rules of grammar and punctuation.(p. 20) So, the grammatical rules and language structure have a great importance in the writing skill.

Moreover, learning a foreign language is considered as a difficult thing , however, learning grammar in this foreign language as English is the most difficult part as Seely (1998) suggested that among the grammatical difficulties students face, which may hamper their achievement in writing are as follows: the sentence, the verb, the object, adverbials, coordinating conjunctions and word order(pp. 159-161).

1.2.4. Organization

In the process of writing, information must be presented to readers in structured format or way, because this will help the reader to understand your piece of writing and read it with passion and enjoyed way. Starkey (2004) stated that:

By following [an organized method of writing], you will guide your reader from your first to last sentence. He or she will be able to see how the various points you make in your [piece of writing] work together and how they support your ideas. (p. 2)

So, organization is a very important element or component of writing, however, you have to follow some techniques in order to get your piece of writing well organized such as, the prewriting technique which makes effective plan that guarantees the organization of the written work.

1.2.5. Vocabulary

It is one of the important components of writing also it is known as Word choice. It takes a significant part in our lives, because when we choose the correct words we can convey our messages clearly and in appropriate way. Vocabulary can help students to convey their thoughts and expressions it helps teachers in understanding their students in better ways. Choosing right words means that the reader understands really what the writer means. According to Starkey (2004) there are two aspects that learners should consider while choosing or selecting the words is: Connotation and Denotation.

"Connotation", is defined by Starkey (2004) as "a word implied meaning which involves emotions, cultural assumptions and suggestions." (p. 21). So, the learner should confirm that each used word denotes exactly what he intends to it. Also, it is refers to what can the reader infer from the written text. However, "Denotation" is the literal meaning of the word. Second language learners should make sure that their words are correct, because sometimes some confusion may stem from words that sounds look similar however, it has different meanings.

Moreover, without vocabulary students cannot understand others or even express their own ideas as Wilkins (1972) has states that"….while without grammar very little can be conveyed, without vocabulary nothing can be conveyed." (pp. 111-112).

1.2.6. Cohesion and Coherence

Halliday and Hasan (1976) stated that cohesion is achieved when the various types of semantic relationships created by a writers' choice of appropriate vocabulary and grammatical structures that they work together to identify and produce a basic unit of writing in language." (p. 25). Also, Cox, Shanaham, and Sulzby (1990, p. 49) have argued that "cohesion is important both to the reader in constructing the meaning from a text and to the writer in creating a text that can be easily comprehended." (as cited in Leo 2012, p. 163). Cohesive writing does not mean just grammatical correct sentences; however, cohesive writing also refers to the connection of ideas both at the sentence level and the paragraph level.

Moreover, coherence also is another important element at any kind of writing. A coherent text is the text which is ready to read and understand by others. Also, it is the one which is presented in clear and logical way. As Murry and Hughes (2008, p. 45) have noticed, a good writer is the one "who stickes his ideas together as links in a chain, each link connecting the one before it with the one after. If any links are missing, the connection become unclear and the argument structure breaks down."

1.3. Stages of Writing

1.3.1. The Planning Stage

It is a crucial stage in the process of writing in which the writer gathers information and generates it and plays with ideas. The planning stage includes pre-writing; where every writer has to do before drafting, it is used as a helpful way to choose and narrow a topic. As well as, it is a helpful stage which makes students achieve a piece of writing. According to Parson (1985, p. 105) " … Students who are encouraged to engage in an array of prewriting experiences have a greater chance for writing achievement than those enjoined to ' get to work' on their writing without this kind of preparation." So, in pre-writing stage the writer selects the general subject, generates the ideas, and organizes them.

1.3.2. The Drafting Stage

It is also known as composing, creating and developing stage. It occurs after getting some ideas. In this stage students start to write by focus only on writing and putting appropriate ideas without checking spelling, grammar, or vocabulary mistakes. In this stage learners can also write with their native language then translate it later on to English or any other language in order to focus only in writing rather than other things. In this context Brown and Hood (1989, p. 14) stated that "the drafting stage is where you really begin writing. The most important thing here is to get words onto paper. It is not the time to worry about spelling, grammar, punctuation, or the best wording."

1.3.3. The Revising Stage

Revising is the third stage in the process of writing. In this stage students try to check their writing, they look again to the work, record what they have written, and try to rewrite the missing points or ideas. Therefore, students or learners focus on what they wrote, then, try to repeat, rewrite, and organize ideas. Hedge (1988) argued that "good writers tend to concentrate on getting the content right first and leave details like correcting spelling, punctuation and grammar until later." (p. 23). Thus, the main focus is on the content rather than other details.

1.3.4. The Editing Stage

It is the fourth stage or step in the process of writing. It is the final step before handing out the final draft. Here students or writers give attention to spelling mistakes, grammar, and punctuation. Johnson (2008, p. 167) confirmed that:

Basically editing means making your piece as reader- friendly as possible by making the sentences flow in a clear, easy-to- read way. It also means bringing your piece of writing into line with accepted ways of using English: using the appropriate grammar for the purposes of the piece, appropriate punctuation and spelling, and appropriate paragraphing.

1.3.5. The Publishing Stage

It is the last stage in the writing process when writers or students do after editing their drafts and making the important changes. It is defined by Williams (2003) as "sharing your finished text with its intended audience, publishing is not limited to getting the text printed in a journal, it includes turning a paper into a teacher, a boss, or an agency." (p. 107). So,

students or writers in this stage are ready to send the final version to their audience, teachers …etc.

1.4.Approaches to Teaching Writing

1.4.1. The Product Approach

The product approach as Gabrielatos (2008, p. 5) defined is "A traditional approach in which students are encouraged to mimic a model text, usually is presented and analyzed at an early stage." Therefore, students or learners are supposed to emphasis their written text on the production, i.e. they focus more on structure rather than content. In the product approach errors is something unacceptable or rejected, in that sense Reid (1993, p. 24) claimed that "Students are taught incrementally, error is prevented, and fluency is expected to arise out of practice with structures." (as cited in Tangkiengsirisin, 2006, p. 3).

Yi (2009) stated that "The aim of this approach is to teach that writing is not a collection of separate sentences, but involves connecting interrelated sentences to produce a coherent discourse."(p. 57). Thus, the purpose of this approach is to link between sentences to produce an effective coherent discourse.

Steele (2004) supposed a product approach Model that contains four stages:

The first stage, Students study model texts and then the features of the genre are highlighted. And the second one consists of controlled practice of the highlighted features, usually in isolation. However, the third stage is the most important stage where the ideas are organized. Those who favor this approach believe that the organization of ideas is more important than the ideas themselves and as important as the control of language. Moreover,

in the forth and the last stage, students choose from the option of comparable writing tasks, and practice individually what they have been taught so as to construct results or outcomes. (as cited in Hasan& Akhand, 2010, p. 78)

So, the product approach main focus is on accuracy and form rather than fluency, the attention is on the finished product, and the main role of a teacher is to judge students on their finished product.

1.4.2. The Process Approach

Kroll (2001) stated that the process approach is:

An umbrella term for many types of writing courses …. What the term captures is the fact that student writers engage in their writing tasks through a cyclical approach rather than a single-shot approach. They are not expected to produce and submit complete and polished responses to their writing assignments without going through stages of drafting and receiving feedback on their drafts, be it from peers and/or from the teacher, followed by revision of their evolving texts. (pp. 220-221)

The process approach came as a reaction to the product approach. In this approach teachers give students more time to work on what they want to write, going from pre-writing activities to the final draft. Tribble (1996, p. 160) argued that the process approach is "an approach to the teaching of writing which stresses the creativity of the individual writer, and which pays attention to the development of good writing practices rather than the imitation of models." Therefore, this approach based on students creativity and improvement, in which teachers gaving them enough time in writing, guiding them, also gave them feedback in order to help them.

Steele (2004) stated a writing process model contains eight stages as follows:

Stage one (Brainstorming): In this stage student generates ideas by brainstorming and discussion.

Stage two (Planning/Structuring): Students exchange ideas into note form and judge quality and usefulness of the ideas.

Stage three (Mind mapping): Students organize ideas into a mind map, spider gram, or linear form.

Stage four (Writing the first draft): Students write the first draft. This is done in the class frequently in pairs or groups.

Stage five (Peer feedback): Drafts are exchanged, so that students become the readers of each other's work.

Stage six (Editing): Drafts are returned and improvements are made based upon peer feedback.

Stage seven (Final draft): A final draft is written.

Stage eight (Evaluation and teachers' feedback): Students' writings are evaluated and teachers provide a feedback on it. (as cited in Hasan& Akhand, 2010, p. 79)

So, students or learners in the process approach do not focus only on grammar and syntax, however, they focus on how to write and moving on through stages of course with the help of teachers, because in this process teaching occurs during the writing process, not only before and after as the product approach.

1.4.3. The Genre Approach

The word Genre has been defined by Lynch (1996) as follows:

A genre is a type of text (e.g. recipe, prayer, advertisement), which is recognized as a

"type" by its overall content, structure, and function. The notion of genre is closely

connected with that of an audience, and in particular, with the idea that readers (and

writers) of a specific genre are members of a community of people sharing interests and

expectations about its communicative purpose. (p. 148)

Therefore, a genre is a type of a text that is shown indifferent forms, as a novel or essay, that serves a given purpose or aim in a society. A genre based approach put great emphasis on the relationship between text genres and their contexts. It is an approach that considered writing as social and cultural activity, its purpose based on conveying a clear context and successful social communication. Also, it is considered language as a tool of communication, and the written text has a social purpose to transmit. As Tribble (1996, p. 37) stated that " writing is seen as an essential social activity in which texts are written to do things, the assumption being that if the reader cannot recognize the purpose of a text, communication will not be successful." Moreover, the genre approach is viewed language as a functional process in which the reader through the written texts or language can achieve certain goals. As well, it is seen language as a contextual based way of communication i.e.; the written text is always happening in various social cultural contexts, as well as, it cannot be understood outside its context.

Yi (2009, p.60) emphasized that:

According to this approach, writers who recognize the context and audience (the

discourse community) of which and for whom the written product is generated are likely

to appreciate the importance of rhetorical knowledge such as formal, style and content in

matching a text to a social purpose and shaping a successful text.

So, this approach is focused on the reader and how the context of the written language is

socially and successfully transferred, also it is based on style, content, and format.

Hyland (2003) put a comparison table between genre and process approaches in order to

summarize the main points in both of them to make the reader in a clear situation; he has

put it as follows:

Table 1.1. A comparison of genre and process orientations Hyland (2003, p. 24)

Attribute	Process	Genre
Main Idea	-Writing is a thinking process concerned with the act of writing.	-Writing is a social activity concerned with the final product.
Teaching focus	-Emphasis on creative writer and how to produce and link ideas.	-Emphasis on reader expectations and product and how to express social purposes effectively.
Advantages	-Makes processes of writing transparent.	-Makes textual conventions transparent.

	-Provides basis for teaching.	-Contextualizes writing for audience and purpose.
Disadvantages	-Assumes L1 and L2 writing similar	-Requires rhetorical understanding of texts.
	-Overlooks L2 language difficulties.	-Can result in perspective Teaching of texts.
	-Insufficient attention to product	-Can lead to over attention to written products.
	-Assumes all writing uses same Processes.	

1.5. Writing and Other Skills

1.5.1. Writing and Speaking

Writing and speaking are clearly two productive skills in which they create language outcomes. According to Kress (1989), writing and speaking are two skills that complete each others, and he has emphasized that "the person who commands both the forms of writing and speech is therefore constructed in a fundamentally different way from the person who commands the form of speech alone." (as cited in Tribble, p. 12). Thus, the person who is acquiring both writing and speaking skills is a successful person and more creative one.

Writing and speaking are both productive skills, however, there are many differences between them that are discussed and argued by many scholars as Byrne (1988)

distinguished between writing and speaking in this table as follows:

Table 1.2. Differences between Speech and Writing Byrne (1988, p. 3)

Speech	Writing
- Takes place in a context which often Makes references clear. makes references clear.	-Creates its own context and therefore has to be fully explicit.
- Speaker and listener contact, interact and exchange roles.	-The reader does not present and no interaction possible.
-Usually person addressed is specific.	-Reader is not necessarily known to writer.
-Immediate feedback given and expected.	-No immediate feedback possible

1.5.2. Writing and Reading

When looking at the nature of writing and reading, it seems that the two skills are different in that reading is a receptive skill but writing is a productive one. These two skills seems separate from each others as writing is a productive activity, however, reading is a passive one. But they complete each other as Johnson (2008) saw that the apparent relationship between the preceding skills is that reading help students become better writers. Also, through this receptive skill, students will contact more with the rules of grammar, develop the structure of language, and enrich their vocabulary. As well, Eisterhold (1990, p. 88) assumed that "reading passages will somehow function as primary models from which writing skills can be learnt, or at least inferred." Therefore, reading and

writing have influenced each other's and the reading skill helps students to improve their writing creativity much more.

According to Ferris and Snyder (1986) in their research about the relationship between reading and writing they have argued that "the closer examination of reading and writing relationships with different types of prose and different modes of writing would be valuable to teachers in designing writing topics" (p. 755).

So, reading and writing are two complementary skills, writers can learn much about writing by reading, and readers can learn much about reading by writing.

1.6. Creativity in Writing

The term "creativity" has seen as "something that is impossible to define in words" (Bohm, 1998, p. 1). So, the meaning of creativity is highly important that's why it cannot be defined in simple words. According to Cannatella (2004) the need for creativity is psychologically biologically, and physically, an essential part of human nature, and that it is necessary for human reproduction, growth and cultural striving (p. 59). Therefore creativity is an essential and necessary part in human beings. Also, it has seen as "innovative educational approach" (Reid& Petocz, 2004, p. 51). This indicates that creativity enables students or learners to enhance their writing in their learning process.

Moreover, all individuals, students, or learners have creativity however each one of them is much more creative than the other one. As Samuels (2004, p. 111) argued that there is the myth that truly creative and talented, their skill comes naturally, and the creative works they produce come with ease. While, the evidence shows that the creative experience only comes after considerable effort and time has been put into the project (as

cites in Gomez, 2007, p. 33). This implies that all students are creative however they need effort and hard word to show this effective side.

So, from the definitions above we come into conclusion that, creativity is highly important in students learning process and learners' writing creativity can be enhanced overtime through students' effort, work and teachers' support in improving the learning process.

Conclusion

From what has been said before, we come into conclusion that the writing skill is a difficult skill which requires both learners and teachers to have some necessary knowledge and information that would reinforce and make foster and promote teaching and learning process effectively. Learners have to follow the different stages of writing in order to reach a great piece of writing. Moreover, teachers have to recognize the different approaches of teaching writing and used new techniques to facilitate writing as much as they can, because it is their responsibility to choose and select a suitable way that learners need.

CHAPTER TWO

The Use of Mind Mapping Software "Mind 42" to Raise Creativity in Writing

Introduction

The traditional way of teaching and learning mainly depends on using one method in which one colour is used, usually the blue pen and words used in linear way. Consequently, the use of colours, images, numbers, and symbols is rarely used; and the brain's capacities are not invested. Nowadays, new methods, ways, and tools are used to facilitate the teaching- learning processes and to make conveying and the transfer of the information from the teacher to their learners more effective and enjoyable.

Learners need to be more creative; the teacher should encourage learners' creativity for having an effective learning. Therefore, in this chapter we discuss mind mapping definitions, steps, and laws of mind mapping and how mind mapping can be used in education. Moreover, we will present mind mapping software definitions and advantages, after that we move on to the definitions of mind mapping software "Mind42" and how it works. Finally, we present how mind mapping software "Mind42" can be used to raise students' creativity in writing.

2.1. Definition of Mind Mapping

Mind mapping was first found by Tony Buzan. He is a researcher, educator, advisor, and the author of the million copy bestsellers: Use bothSides of Your Brain, Use Your Perfect Memory, Speed Reading and The Mind Map Book. His work has been published in more than 100 countries and translated into over 30 languages.

According to Knee (2013, p. 183) "a Mind Map is a powerful graphic technique that provides a universal key to unlocking the potential of the brain. It harnesses the full range of cortical skill: word, image, number, logic, rhythm, colour and spatial awareness in a single, uniquely powerful manner. So, it gives the freedom to roam the infinite expanses of the brain". This investigates that mind mapping is a powerful new technique. Also, mind mapping is a helpful technique that can make students depict their thoughts and ideas easily as Buzan (2006) stated that "mind map is the most excellent tool which helps mind to keep thinking. This technique helps students to construct a text and remember things that they want to describe easily" (p. 4). Further, he added that the effectiveness of the Mind Map lies in its dynamic shape and form which resembles the shape of the brain cell; accordingly, the brain will be encouraged to work in a way that is fast, efficient, and in the style which is natural(2006, p. 138).

According to Santiago (2001, p. 126) "Mind mapping is the graphical representation of text content. It has been proposed as a technique to brainstorm and summarize information as well as a study method". Therefore, mind mapping is a simple way of summarizing information that can helps learners and teachers in their learning and teaching process. Mind mapping can be used as productive and creative tools that enhance individuals learning in different sides. In other words, Mind mapping is "a creativity and productivity enhancing technique that can improve the learning and efficiency of individuals and organizations" (Mento, Martinelli & Jones, 1999, p. 391).

The idea we draw from the previous definitions is that mind mapping is a technique which helps in making information easy to learners and it helps them in formulating simple and new ideas, organizing information, and enjoying the task of learning.

2.2. Steps of Mind Mapping

According to Buzan (2005, p. 15) Making a mind map is simple; it requires seven easy steps which are the following:

1. The mind mapper would take a blank paper and start to draw from the center of the paper, because drawing from the center of the paper will give more freedom to the brain to express anything naturally.

2. Use a picture in the middle of the paper as a central idea, because it reflects the nature of the brain's thinking process and imagination and keeps focus on the main topic.

3. Use colors, this will make mind mapping more efficient and create more productivity and creativity.

4. The mind mapper should connect the main picture to some branch details. These branches are considered as the central branches of the mind map, to make ideas more easier to be remembered and understood.

5. Connect the branches with bowline, not upright or straight line, because these branches will spread like a tree.

6. Use one key word in every branch because it will encourage the brain to improve it to be a new notion.

7. Use picture in branches when it possible because this will make the brain uses both sides and each picture means thousand words.

2.3. Mind Mapping Laws

Mind mapping laws help the mind mapper to create order from chaos and to make the mind mapper maps well organized. Simply, these laws can be summarized as follow:

1-Laws of technique: Use emphasis, Use association, and Be clear. Also, **2**-Laws of Layout: Use hierarchy and Use numerical order.

2.3.1. Laws of Technique

2.3.1.1. Use emphasis

Emphasis in one of the major factors in improving memory and creativity, Emphasis is achieved by using the following items and techniques in the Mind map (Buzan, 1994, pp. 97-100).

- **Always use central image:** An image usually concentrates the eye and the brain, it makes considerable associations between ideas, and it is a strong effective memory aid. Therefore, if a word rather than a picture is used as a central image, it can be made more three- dimensional by the addition of shade, multiple colours or attractive lettering.

- **Use three or more colours per central image:** Colours stimulate memory and creativity and they insert life to images and make them more attractive. Colours wake up the brain , in which using one colour make the brain sees it boring .

- **Use Dimensions in images and words:** Dimensions will help the mind mapper to remember easily, it is an important element in mind mapping in which the mind mapper should draw or write in three dimensions at least, and this is especially efficient in giving key words importance.

- **Use Variation of printing, line and image:** Varying the size of printing will introduce immediately a sense of hierarchy and give a clear message regarding the relative importance of the item listed.

- **Use organized spacing:** When the mind mapper organized well his/her mind map through using organized spacing this will increase the clarity of his/ her mind map and help communicate the hierarchy and categorization of ideas. Moreover, organized spacing makes the mind map easier to read and attractive to took at.

2.3.1.2. Use Association

Association is another key element in enhancing memory and creativity. It is the second half of the brain's language in which the brain uses to make sense of our physical experience. Association can be achieved through the use of the following elements and techniques (Buzan, 1994, pp. 100-101).

- **Use Arrows**: Arrows can be used within and towards the branches in order to guide the eye to join and combine the mind map parts. This element allows to make movement and movement is a worthy support to effective memory, recall, and retrieve.

- **Use Colours**: Colour is an important element in mind mapping in which the mind mapper should use. Using this element make the mind map more effective and powerful and give the mind mapper quick access to the information included on the mind map then ,make the mind mapper remember the information more easily and rapidly.

- **Use Codes**: Codes should be used by the mind mapper to make immediate connections between several parts of the mind map. This element or technique

can increase and promote hierarchy and categorization through the easy application of images, symbols, and colours. Also, they can used to link source materials as well, biographical reference to the mind map.

2.3.1.3. Be Clear

Scribbled notes will hinder rather than help memory. The Mind mapper should give a clear Mind map that contains a beautiful, organized structure, because simply a clear Mind map will be more beautiful, attractive, and enjoyable to use. According to Buzan clarity can be achieved through the following elements or techniques.(Buzan, 1994, pp. 101-103).

- **Use only one Key Word per Line:** Each individual word will make thousand of meaning and significance. When the Mind mapper use only one key word per line this will give his/ her ultimate chance to produce and make concepts and connotations for each individual word. Moreover, in this situation the brain will be more ready and prepared to new ideas, thoughts… etc.

- **Print all Words:** Printed letters have a more defined shape and they are considered as the easiest way for the mind to photograph and save. Printing also encourages brevity, and both upper and lower case letters can be used to show the relative importance of words on the Mind mapper maps.

- **Prind Key Words on Lines:** The line forms a skeleton for the flesh of the word, also this line provides organization and neatness which improve and promote clarity and aid recall. Lines are very important in the mind map since they connect the individual key words together and they allow the brain to make connections with all parts of the mind map easily.

- **Make Line Length Equal to Word Length:** This law makes it easier to place words near each other hence facilitating association. Moreover, the space saved enables the mind mapper to cover more information in his/ her Mind map.

- **Connect Lines to other Lines and Major Branches to Central Image:** Connecting lines on the mind map enables the mind mapper to connect thoughts in his or her mind. Moreover, those lines can be changed into arrows, curves, loops, circles, ovals, triangles or any other shapes from the mind mapper brain limitless store.

- **Make the Central Lines Thicker and Organic:** Thicker the central lines will send immediately the message to the mind mapper's brain that the information on these lines are the most important. When the mind mapper finished his or her mind map he or she can thicker the lines in which contains the most important ideas. The mind map should be curvilinear, because curved lines will add more visual interest rather than straights lines which makes the brain in boring situation.

- **Keep your Paper Placed Horizontally in Front of You:** The horizontal (landscape) format gives the mind mapper more freedom and space to draw the mind map than the vertical (portrait) position. In addition, a horizontal mind map is much easier to read.

- **Keep your Printing as Upright as Possible:** Upright printing gives the brain easier access to the thoughts expressed, and this law applies as much to the angle of the lines as to the printing itself. If the mind mapper keeps the lines as close to horizontal as possible, his/her mind map will be much easier to read.

2.3.2. Layout Laws

According to Buzan (1994, p. 104) layout laws can be summarized in the following two elements:

Use Hierarchy and Use Numerical order.

- **Use Hierarchy:** When the mind mapper layout or structure his/her mind map in an organized way; according to this he/she will have a great influence on how she/he utilize it and its functional and practical usability. Moreover, the use of hierarchy and categorization enhances the power of the brain, especially memory.

- **Use Numerical Order:** If the mind map is the basis for a specific task such as, speech, an essay, or an examination answer, it is better to communicate the thoughts in a specific order, whether chronological or in order of importance. In addition, to use the numerical order, the mind mapper would simply number the branches in the desired order, even distribute the suitable time or emphasis to each branch if necessary. Letters of the alphabet can be used instead of numbers.

2.4. Mind Mapping in Education

Education seeks to create fundamental modification in the life of learners and teachers. This is accomplished through the provision of appropriate and attractive learning experiences to the learner. Therefore, the teacher duty is to choose and select suitable and convenient teaching methods and techniques that can facilitate conveying the information to the learner. Mind mapping technique can be used as one of these techniques that will make learning-teaching process more suitable. This new way or technique can be used in planning a lesson, taking notes, preparing or making presentations… etc.

2.4.1. Planning a Lesson or Preparing a Lecture

Preparing a lecture in mind map form is much faster than writing it out and it has the big advantage of allowing both the teacher and the student to keep an overview of the whole subject of all times. Moreover, a mind map allows the speaker to take a wonderful balance between spontaneously spoken and fresh talk also obvious and well organized presentation. A mind mapped lesson is easy to update from year to year without becoming disordered and its mnemonic qualities; means that a brief overview before the lecture quickly brings the topic right back into focus. (Buzan 1994, p. 223-224).

So, preparing a lecture or planning a lesson through mind mapping technique allows the teacher to facilitate his/ her work and give the lesson more attractive format, also he/she can summarize it easily.

2.4.2. Presentations

Mind maps are ideal for planning, monitoring, and presenting lessons, projects… etc. Mind mapping tool enables the mind mapper to prepare and present his/her ideas in a clear, interesting and effective way.

According to Buzan (1994, p. 260) mind maps have a great benefits in presentations in which; they give the presenter freedom of movement, increase involvement both for the speaker and the audience, increase eye contact with audience also, they result in a more memorable, effective and enjoyable performance for both the speakers and the audience and give the presenter the freedom to be him or herself.

In short, the mind mapper should have a well organized mind mapping presentation before he/she presenting it to others, because this technique will help him/her to make his/her presentation more easy to understand by audience when it takes a clear format and structure.

2.4.3. Note-Taking

Learners or students in the traditional way of studying especially in note taking most of them use linear style in which they use only one colour even blue or black and use only words. However, mind mapping technique can be used instead of the traditional way of note taking in which it can be turned as a more enjoyable activity when students will be more creative and productive. They can understand and remember their notes easily because simply using multiple colours and images make students remember the information faster than before, because the human brain consists of two main parts the left and right lobes, each lobe has its own special function. The left brain deals with language, logic, writing, and other similar activities, however, the right brain deals with imagination, colour, dreaming, and other similar activities. (Buzan,1996, p. 94).

2.5. Mind Mapping Software

Before mind maps always created simply through the use of papers and pens, however nowadays technology enables the mind mapper to make and design a map through using computers. Because, computers now have sufficient memory capacity, quick and software ability to allow mind maps to be drawn on screen.

Mind mapping software is defined as a suitable method that may help people. It's a whiteboard where the mind mapper can do a mental "core dump" of his/her ideas

and rearrange them when needed. Mind mapping software is a powerful, flexible, dashboard, and a window on key information, projects, resources, and processes that can help the mind mapper to design his/her work style (Frey, 2010, p. 6).

Computer technology enables the mind mapper mapping with greater ease as Davis (2011) stated that, in order to drawing a mind map there are a number of digital tools available to assist in creating, organizing, and saving maps. These software options include Mind note, Imind, and Mind42. (as cited in Vitulli and Giles, 2016, p. 6)

So, mind mapping software or electronic mind mapping is a new and helpful technique or method that can facilitate and organize the mind mapper work and make his/her map more clear and appropriate structure.

2.6. The advantages of mind mapping software

Using mind mapping in general facilitate many things for the mind mapper or the reader since it "uses hierarchy and categorization which put the primary ideas in place so that the secondary and tertiary ideas can follow quickly and easily to facilitate a harmonious thought structure" (Buzan, 1994, p. 88). However, mind maps produced by mind mapping software and those drawing by hand differ from each other in which using mind mapping software has many advantages some of them can be summarized as follow:

a- Mind Maps can be flexible, altered and reworked at any time:

In mind mapping software graphics and symbols can be changed at any time. When the mind mapper compose text in the computer, it's quite straight forward to alter the structure of the mind map if the mind mapper makes a mistake or change his/her mind map and to order and arrange some branches differently (Rustler, 2012, p. 88).

b- Accessing the internet or other files with hyperlinks:

Mind mapping software allows the mind mapper to connect a branch with any website or data file with hyperlink and allows him/her to utilize a range of digital information from a mind map via linking it quickly to the relevant documents. Moreover, if a mind map takes a large place and it seems unclear, software can divide it into subparts, then these sub maps can be easily linked to the master map via a hyperlink(Rustler, 2012, p. 89).

c- Text Memos add further information to each branch:

One of the mind mapping feature is that the mind mapper can write only key words in branches. When he/she want to add further information; mind mapping software has a text memo function for this, he/she can use it to enter additional text memos and more information on a branch via an input window. However, when the window is closed, the software indicates with symbols, that there are text memos connected with the branch concerned(Rustler, 2012, p. 90).

d- Exporting to other format:

Simply mind mapping software allows the mind mapper to export his/her mind map to other file formats for other processing. The mind mapper can export his/her map as pdf, image. So, anyone can look at it on their computer (Rustler, 2012, p. 91).

2.7. Mind Mapping Software "Mind 42"

2.7.1. Definition of Mind42 (Mind For Two)

Mind42 was created by Stefan Schuster; he is an expert in the field of software, Java script and Mobile, he offers services and consulting in the area of web application development and the creation of mobile Applications. According to Mike Filsaime (2010, p. 27) Mind42 is"a browser-based program that can be used as an individual or co-operation with others, it is an excellent software application available for the purpose of mind mapping".

Mind42 refers to the collaborative features of the product and it is pronounced "Mind For Two". It is a free online tool for mind mapping that can be used as collaborative online mind mapping tool that can help and provide online educators with en effective instructional strategy; usually best employed in face to face learning environments (Anderson& Byrne, 2011, p. 14). Moreover, this application affords the mind mapper the option to publish his/her work and share it with huge and vast audiences on the internet.

Mind42 is a simple web package for drawing basic mind maps, the main thing about this software is mainly free (Rustler, 2012, p. 109). So, Mind42 is a free web-based mind mapping tool that enables users to create mind maps easily for many and

different purposes. Mind42 allows its users to work collaboratively with each other's without any need to install anything into their computers.

This software provides the mind mapper with simple mind mapping tools that enables him/her to create and share different maps easily. It is easy to run at any browser without any need for installation; all the mind mapper maps are private till he/she want to share it with others.

The idea we draw from the previous definitions is that Mind42 is a free and simple mind mapping software application that can be used easily without any need for payment and installation, and it can be found at any browser.

2.7.2. How to use "Mind42"

Mind42 really is an excellent tool or application for mind mapping, organizing and brainstorming ideas, it is considered as an excellent tool since it can be used simply (Biage, 2018, para. 6).

The mind mapper can open his/her preferred browser simply and go to www.mind42.com to launch the application then sign up for a free account through putting his/her prefered name, email and password. The mind mapper will receive a message in his/her email which confirms that the sign up form is successfully completed and he/she can use mind42 to create maps.

When the mind mapper want to create a map in Mind42 he/ she should enter a name for his/her mind map; this name put in the center of the mind map. In order to add or edit texts he/she should make double click on the center of the mind map, also make a click on **"+"**in order to add a child node then he/she can write whatever

he/she want through adding more nodes. However, if he/she needs to delete a node simply he/she can make a click on the node then click on **"X".**

The mind mapper can use the properties menu to enrich his/her mind map. He/she can click on a node then click on the note button in order to type notes for the node and add further information. In order to add a link the mind mapper also click on the node link icon, after that type the link on the URL and select the appropriate web page that needed then click anywhere outside the link bar to save; and the same thing for adding an image. Also, to insert an icon a simple click on the node and the icon botton; then select icons needed. Moreover, the mind mapper can use the style button to change the node's appearance; once clicked the style bar appears, so he/she can use these buttons to change the node's text appearance and the branches colours (Mind42 Guide, Schuster, 2007).

Figure2.1.: Simple Example of Mind map through using Mind42 Software

(Retrieved from www.Mind42.com)

Thus, the example above presents a simple mind map of this chapter through the use of Mind42 software.

2.8. Raising students' writing creativity through the use of Mind mapping Software Mind42

Enhancing learners' writing creativity could be boosted with multiple and appropriate tools, methods or techniques. Learners' creativity in writing is obviously a desired goal. Mind mapping software applications holds the greatest possibility in

boosting and supporting learner creativity in writing, because of its potential of making students or learners in situation to write in new ways, using attractive colours, different symbols and nodes in order to write.

Mind mapping software Mind42 as it is defined above as a free and simple tool can be used nowadays as one of the solutions to enhance or raise students creativity especially in writing. Mind42 as declared by Jared Keengwe (2018, p. 6) is seen as classroom application to identify or show relationships among concepts related to a particular topic or idea. Mind42 is seen as active learning strategy aligned with technology. Thus, this electronic application seen as a new and active learning strategy that can be used as a guide for the learner to enhance his/her writing creativity.

Mind42 is an application that helps learners to write in effective way because learners will use their both right and left brain learning style in which they will put their touches when they write. Moreover, Mind42 can be used as new learning application that makes students/ learners' more motivation to write in more creative ways; since our new generation most of them prefer the electronic and digital tools.

Conclusion

The mind maps is the reflection of the activity of the brain by being organized in radiant way since the brain is an amazing organ where it able to think and remember in non linear way. Making the student creative has great significance in our days, for being creative especially in writing is an important issue, the teacher should help the

learner via using different methods and tools in order to go hand with hand with the features that lead to enhance creativity.

Creative learners are efficient and effective learners in which motivation, encouragement and suitable methods will push them to show their creative and productive sides.

CHAPTER THREE

FIELD INVESTIGATION

Introduction

The present chapter is devoted to the analysis of the questionnaires which were administered for both teachers and their students for the sake of obtaining data which serve our research to know students' and teachers' point of views about the role of Mind Mapping Software techniques in enhancing creativity in writing.

The aim of the questionnaire which is submitted to the students is to make them in a position that allows them to express and show their opinions and ideas about the main difficulties that may face them when they write; which decrease their creativity and information about mind mapping software techniques to improve their writing creativity. The teachers' questionnaire is submitted to know the role of mind mapping software in developing writing creativity and the degree of importance which is given by them through how they encourage their students to use such new techniques to attain their writing creativity. Moreover, the main purpose of this chapter is to investigate and achieve the research hypothesis and to find solutions to learners' difficulties and to improve their writing by using mind mapping software applications such as **"Mind42"**. The procedure followed is the analysis of each question separately; in which the statistical data is introduced and illustrated in the form of tables to quantify all proceedings regarding the current study, then a summary of the results and the findings from students' and teachers' question is presented. This chapter ends with a general conclusion which is a summary of the main aims and findings of the study.

3.1. Students' Questionnaire

3.1.1. Population of the study

We have randomly selected a sample of (114) second year students at the Department of English, in University of 8 Mai 1945 (Guelma), enrolled for the academic year 2018/2019. The reason behind choosing to work with second year is that they are still young students and they need to know good techniques that can help them to learn and study how to boost their creativity especially in writing. 114 questionnaires has been administered to the sample because the whole population includes 160 students.

3.1.2. Description of Students' Questionnaire

This questionnaire is composed of three main sections which contain **(23)** questions and it contains multiple questions most of them are closed-ended in which the participants are asked to select one or multiple answers followed with a small space for further suggestions.

The first section (General Information) contains three questions, which represent general information about the learners. The second section (from Q4 to Q12) aims to collect data about the writing skill and it attempts to find out the students' problems in writing in relation to different aspects involved in the writing process. Section three is entitled "the Use of Mind Mapping software "Mind42" to raise creativity in writing", it consists of ten questions (from Q13 to Q23); this section is composed of questions about the students' views and attitudes towards Mind mapping software techniques and how those techniques could increase their creativity in writing.

3.1.3. Administration of the Students' Questionnaire

The questionnaire was administered to (114) students of Second Year LMD Students chosen randomly from the Department of English in 8 Mai 1945 Guelma University. The questionnaire was answered in the same day that is given to them in: May, 20th, 2019. Foreign language students have the passion to know new ways and methods to enhance their level, and second year students answer with passion and seriousness. This what makes their answers and suggestions valuable for this study.

3.1.4. Analysis of Results and Findings from the students' Questionnaire

Section One: General Information

Question One

Table3.1. *Students' Age*

Age	Number	Percentage
19	70	61.40%
20	23	20.18%
21	15	13.16%
22	6	5.26%
Total	114	100%

Concerning students' age the majority of students (61.40%) are 19 years. Whereas, twenty three students (20.18%) 20 years and fifteen (13.16%) 21 years, and only six of them (5.26%) have 22 years. So, the majority of Second year students are 19 years old.

Question Two: How long have you been studying English?

Table3.2. *Years of studying English*

Years of study	Number	Percentage
9	70	61.40%
10	20	17.54%
11	15	13.16%
12	9	7.90%
Total	114	100%

The majority of students (61.40%) have been studying English for Nine years (61.40%), whereas Twenty students (17.54%) have Ten years of experience. Then, Fifteen of students have 11 years and only Nine students who have Twelve years. This implies that the majority of students have a long period of time in studying English.

Question Three: How could you describe your level in English?

Table3.3. *Students' Appreciation of their Level in English*

Students' Level	Number	Percentage
Good	24	21.05%
Average	90	78.95%
Bad	0	0%
Total	114	100%

According to the results obtained from the table above; the majority of students (78.95%) have said that their level in English is average. However, Twenty-four students (21.05%) assume that their level is Good and no one (0%) of them claimed to have a bad level in English. This means that generally Second year students' level is average in the English language in general. This indicates that the majority of students need more time and extra work and efforts in order to raise and enhance their level in English.

Section Two: Writing Creativity

Question Four: Do you appreciate writing in the English Language?

Table 3.4. *Students' Appreciation of Writing in the English Language*

Students' Appreciation	Number	Percentage
Yes	93	81.58%
No	21	18.42%
Total	114	100%

The table above shows that (81.58%) of the students from 114 appreciate writing in English. So, the majority of students acknowledge that writing in English is important, because they are foreign language learners. However, only Twenty-one of students (18.42%) have said no. Students who said no they need to explain why? and what are the reasons behind that?. Out of Twenty-one student, Twelve students (12) claimed that they do not appreciate writing in English because of the lack of the writing proficiency and nine students have said that because of the difficulty of the writing skill. So, this implies that

only few students from 114 claimed that they do not appreciate writing in the English language not because they have seen it boring or something else.

Question Five: 5. According to you which of the following skills is the most difficult(one option)?

Table 3.5.*The Most Difficult Skill*

The Skill	Number	Percentage
Reading	9	7.89%
Listening	18	15.79%
Writing	63	55.26%
Speaking	24	21.06%
Total	114	100%

The table above exposes that Sixty-three students (55.26%) have seen writing as the most difficult skill for them. While Twenty-four students (21.06%) have answered that it was speaking. As for listening, it was about Eighteen (15.79%), and only Nine students (7.89%) have stated that reading is the most difficult skill. From the analysis of this question the majority of learners have seen the writing skill as the most difficult for them. So, they are aware that the writing skill is a complex work that needs hard work. However, students should be aware that these skills work in equivalent way and they complete and develop each other.

Question Six: 6. How is your level in writing?

Table 3.6. *Students' Appreciation of their Level in Writing*

Students'Appreciation	Number	Percentage
Good	42	36.84%
Average	69	60.53%
Bad	3	2.63%
Total	114	100%

Students are expected to evaluate their level in writing from Good to Bad. The table above indicates that Sixty-nine (60.53%) have said that they have an average level in writing. So, they need new methods, ways and techniques to enhance their writing. Forty-two of students (36.84%) perceive themselves as good students in writing. The rest of answers were about (2.63%) stated that their level is bad. This means that learners' level in writing is average in general, however; it can be enhanced when they work harder to master the basic elements and principles of the writing skill

Question Seven: To which element you give more importance when writing?

Table 3.7.*The most Important Element for Effective Writing*

The Element	Number	Percentage
Punctuation	3	2.63%
Spelling	27	23.68%
Organization	51	44.74%
Grammar	15	13.16%
Vocabulary	18	15.79%
Total	114	100%

This question aims to know the students' views about the most important element for making effective writing, and the results were as follow. Fifty-one (44.74%) of the students' responses shows that the most important element for effective writing is organization. This implies that students are aware that the organized piece of writing has an important influence. Twenty-seven students (23.68%) has chosen spelling. This implies that a lot of students consider the importance of making correct spelling. However, only few students Three of them (2.63%) has chosen punctuation. Which show those that students were neglect the importance of punctuation in a piece of writing. Moreover, fifteen (13.16%) of students were choose grammar and Eighteen (15.79%) were select vocabulary. This implies that those students are concentrate on the grammatical rules and focus on the appropriate use of items and vocabulary. However, students should be aware about the importance of each element, because effective and good writing focuses on all those elements or aspects in which they complete each other.

Question Eight: 8. Which type of assessment is more important to improve writing?

Table 3.8. *The Important Type of Assessment that Improve Writing*

Type of Assessment	Number	Percentage
Teachers' Assessment	39	34.21%
Self-assessment	75	65.79%
Total	114	100%

According to the results obtained, the majority of the students Seventy-five (65.79%) prefer self-assessment to improve their writing skill. This means that the majority of students take responsibility to assess and evaluate themselves in order to enhance and improve their writing. However, Thirty-nine of students (34.21%) prefer teachers' assessment. This implies that students' are aware about the role of teachers. Moreover, both self assessment and teachers' assessment are essential and important to improve students' writing proficiency and creativity.

Question Nine: Which approach does your teacher(s) advise you to follow in writing?

Table 3.9. *Approaches to Teaching Writing*

Approaches	Number	Percentage
The product Approach	27	23.68%
The process Approach	87	76.32%
Total	114	100%

This question aims to know which approach in teaching writing do teachers advise their students to follow. The majority of students Eighty-nine (76.32%) selected the second

choice (the process approach). So, this indicates that most of teachers advise their students to follow the different stages of writing and focus on their mental processes. Twenty-seven (23.68%) of students selected the product approach. Thus, their teachers prefer to follow a model and give examples in order to avoid errors and mistakes.

Question Ten: Which approach is the best in developing the writing skill?

Table 3.10. *The Best Approach in Developing the Writing Skill*

The Best Approach	Number	Percentage
The Process Approach	93	81.58%
The Product Approach	21	18.42%
Total	114	100%

From this table it is clear that the majority of students ninety-three of students (81.58%) have seen that the best approach in developing writing is the process approach. So, this indicates that the majority have seen that the writing skill requires from fluency, form and correctness. However, only twenty one students from 114, have seen that the product approach as the best one for developing writing. This implies that they prefer the traditional approach in developing writing in which they only mimic a model text and follow the example to avoid errors.

Question Eleven: Do you agree that students' creativity in writing is highly interesting?

Table 3.11. *Students' Appreciation about Creativity in Writing*

Students' Appreciation	Number	Percentage
Yes	111	97.37%
NO	3	2.63%
Total	114	100%

Concerning learners' views if they agree that their creativity in writing is highly interesting or not. The majority of students (97.37%) have answered yes. So, learners acknowledge the importance of creativity in writing as an interesting issue. Only three students (2.63%) have claimed that students' creativity in writing is not highly interesting or important. This implies that those students are not aware about the importance of a creative learner or writer and his/her position as a foreign language learner.

Question Twelve: Which approach to teaching writing encourages creativity in writing?

Table 3.12. *The Approach that Encourages Creativity in Writing*

The Approach	Number	Percentage
The Product Approach	24	21.05%
The Process Approach	90	78.95%
Total	114	100%

Through this question we assume that always the majority of students or learners prefer the process approach. In this question Ninety (78.95%) of students have seen that the process approach is the approach that can be used to encourage creativity in writing.

This indicates that students prefer the process approach which makes them in a position of making new ideas. So, it will increase their creativity because they will write freely through following the writing steps. Moreover, twenty-four (21.05%) of students have seen that the product approach as the approach that encourages creativity in writing. However, how can creativity encouraged where students follow just a model and example and they asked only to follow and repeat.

Question Thirteen: Are you creative in writing?

Table 3.13. (a) *Students' Appreciation of their Creativity in Writing*

Students' Appreciation	Number	Percentage
Yes	48	42.11%
No	66	57.89%
Total	114	100%

This table presents that the majority of answers (57.89%) of students have claimed that they are not creative in writing. This indicates that students need more encouragement to enhance their writing and they also need to be aware about the importance of creativity especially in writing. In contrast of this, Forty-eight (42.11%) of learners have claimed that they are creative in writing.

Table 3.13. (b)*Writings that Makes Students as Creative writers*

Options	Number	Percentage
Write poems	5	10.42%
Write short stories	40	83.33%
Write novels	3	6.25%
Write plays	0	0%
Other	0	0%

Students who state that they are creative writers asked to choose what they have written to consider themselves as creative writers. The majority of them Forty (83.33%) they state that they write short stories and Five of them (10.42%) write poems, and only three of them (6.25%) they write novels. So, this implies that students are creative learners, however; they need encouragement and push to show their invisible creative sides.

Section Three: The Use of Mind Mapping Software "Mind42" to Raise Creativity in Writing.

Question Fourteen: What is the most difficult step in writing?

Table 3.14. *The Most Difficult Step in Writing*

Steps	Number	Percentage
Planning	84	73.68%
Drafting	27	23.68%
Revising	3	2.64%
Editing	0	0%
Total	114	100%

When we ask learners about their attitude about the most difficult step when they write. Eighty-four (73.68%) of the students' responses show that planning is the most difficult step in writing. This implies that students face difficulties when they try to put outline or plan; may be because of lack of vocabulary and the difficulty and the ability to select and organize ideas. Twenty-seven of students have seen the drafting stage as the most important one. Which indicates that making a piece of writing takes time and effort in order to make a good piece of writing. Only three students have seen that revising as a difficult step and no one of them have seen editing stage as a difficult one. These results show that only few students put into consideration the revising stage and make it less important.

Question Fifteen: How important is planning in the writing process?

Table 3.15. *The Importance of   the Planning stage in the Writing Process*

Planning Importance	Number	Percentage
Very Important	105	92.11%
Important	9	7.89%
Not Important	0	0%
Total	114	100%

As shown in table (15), the majority of learners (92.11%) choose the first option which indicates that they are aware about the importance of this step or stage in the writing process. However, only Nine students (7.89%) have seen the planning stage as important, and no one of them have seen it as not important. These results show that students give to the planning stage a big importance as they know its importance.

Question Sixteen: Do you apply mind mapping techniques when writing?

Table 3.16. *Students' Application of Mind Mapping when Writing*

Options	Number	Percentage
Yes	63	55.26%
No	51	44.74%
Total	114	100%

Through this question we assume that the majority of learners Sixty-three (55.26%) use mind mapping techniques when writing. This implies that learners use different techniques in order to write. Whereas, Fifty-five (44.74%) of students have said that they do not apply mind mapping techniques when they write. This indicates that those students are not aware about the benefits of these techniques in facilitating writing.

Question Seventeen: you agree that teachers should encourage students to use mind mapping techniques?

Table 3.17. *Teachers' Encouragement of the Use of Mind Mapping*

Options	Number	Percentage
Agree	114	100%
Neither agree Nor disagree	0	0%
Disagree	0	0%
Total	114	100%

As indicates in table (17), students are asked about their views whether the teacher should encourage their students to use mind mapping techniques; all students (100%) they

agree. This indicates that teachers' encouragement to use new ways or techniques makes students more motivated to write.

Question Eighteen: Do you think that following mind mapping techniques would help you produce better ideas?

Table3.18. *Students' Opinion about Using Mind Mapping Techniques to Produce Better Ideas*

Students' Opinion	Number	Percentage
Yes	104	91.23%
No	10	8.77%
Total	114	100%

The table shows that the majority of students (91.23%) have considered that; they producing new and better ideas when they use mind mapping techniques in writing. However only ten students from 114 they do not think that those techniques helps them to produce better ideas. Moreover, these results investigate that most of learners have seen that mind mapping techniques as creative techniques.

Question Nineteen

Table 3.19. (a) *Students' Information about Mind Mapping Software Applications*

Options	Number	Percentage
Yes	33	28.95%
No	81	71.05%
Total	114	100%

From this table it is clear that most of students (71.05%) do not know mind mapping software applications. This indicates that the majority of students need more encouragement to use such electronic applications in order to enhance their writing creativity and decreasing the students use of social media only. However, thirty-three (28.95%) of students answered yes, they know electronic mind mapping; which indicates that learners are always searching for new tools in order to raise their level.

Table 3.19.b. *Students' Acknowledgement about Mind Mapping Software "Mind42"*

Students' Acknowledgement	Number	Percentage
Yes	15	45.45%
No	18	54.55%

As shown in table 3.19 (b), 54.55% of students have claimed that they do not know "Mind42". However, 45.45% of students have answered yes they know it. This shows that students' awareness about software application can be increased.

Table 3.19.c. *The Use of "Mind42"*

Options	Number	Percentage
Yes	0	0%
No	15	100%

According to the table above, all the students (100%) who know mind mapping applications they do not know "Mind42". This indicates that learners need to learn about this application in order to use it and benefit from it.

Question Twenty: Do you think that mind mapping software application is better than traditional mind mapping?

Table 3.20. *Students' views about Using Mind Mapping Software Versus Traditional Mind Mapping*

Students' views	Number	Percentage
Yes	83	72.81%
No	31	27.19%
Total	114	100%

Eighty-three learners (72.81%) opted for "yes" they think that the use of mind mapping software application is better than traditional mind mapping. While, only thirty one of the students (27.19%) opted for No. The results show that the majority of the students prefer to use mind mapping software applications. However, they only need more motivation and encouragement to apply them more than before.

Question Twenty-one: Do you agree that mind mapping software is a useful technique for raising students' writing creativity?

Table 3.21. *Mind Mapping Software as Useful Technique for Raising Students Writing Creativity*

Options	Number	Percentage
Agree	75	65.79%
Neither agree Nor disagree	36	31.58%
Disagree	3	2.63%
Total	114	100%

It is clear from this table that, the majority (65.79%) of the students agree that using mind mapping software in education is useful technique for raising their writing creativity. Thirty-six (31.58%) do not agree or neither disagree. This means that the majority of learners know what mind mapping software is and they have seen it as useful method or technique that can be used in order to boost their writing creativity in general. However, only three students from 114 they have answered the third answer; which is disagree. This means that those students are not aware about the role of this new technique to promote creativity and enhance students to write in a creative ways.

Question Twenty-two

Table 3.22. *Mind Mapping Software to Raise Students' Creativity*

Options	Number	Percentage
The use of technology make students more motivation to write their ideas	71	62.28%
Using mind mapping software saves students' time	30	26.32%
Mind mapping software makes the writing process flexible	13	11.40%
Other	0	0%
Total	114	100%

When we asked how the mind mapping software could raise students' creativity, the majority of students (62.28%) have opted for the first option in which they have seen that the use of technology make students more motivated to write their ideas. This indicates that the majority of students prefer to use technological tools and techniques to show their

invisible side. Thirty (26.32%) of students have chosen the second option. Which implies that they prefer to use this technique in order to save time. 11.40% of students have seen that mind mapping software makes the writing process flexible which mean that students piece of writing will be more suitable, organized and attractive.

Question Twenty-three

This question is an open one, it is about adding further information concerning the topic. Only 20 students (17.54%) from 114 have added suggestions. Learners' suggestions can be summarized as follows.

- Using mind mapping software help students to maintain the modern world.

- Students should use mind mapping techniques to improve their writing creativity.

-Mind42 is an application that allows its users to develop their writing skill in order to give something new, also to be more creative in the future.

- Using new techniques is very important to improve the teaching and learning process.

So, students seem aware about the importance of developing their writing creativity through using new techniques as mind mapping software applications.

3.2. Teachers' Questionnaire

3.2.1. Description of the Questionnaire

This questionnaire consists of Seventeen (17) questions and it is divided into three main sections. The first section contains general information about teachers; their qualification, specialty, and their years of teaching English and written expression module. Section two is about writing creativity, this section aims to collect some information about the writing skill and how can students be more creative. Section three, is designed to know teachers' opinion about using mind mapping software techniques and how it can raise creativity.

3.2.2. Administration of Teachers' questionnaire

This questionnaire is designed to be administered to written expression teachers at the department of English, at university of 8 Mai 1945, Guelma. The aim behind this questionnaire is to know the importance it is given by teachers through how they encourage their students to use new ways and techniques to improve their writing and to show their creativity.

3.2.3. Analysis of Results and Findings from Teachers' Questionnaire

Section One: General Information

Question One: What is your qualification?

Table 3.23. *Teachers' Qualification*

Teachers' Qualification	Number	Percentage
License	0	0%
Magistere/Master	16	88.89%
Doctorate	2	11.11%
Total	18	100%

The table above shows that the majority of teachers' (88.89%) have the Magistere or master degree, while two teachers have doctorate degree. However, no one of the participant teachers have a license degree.

Question Two: How long have you been teaching English at the University?

Table 3.24. *Teachers' Experience*

Teachers' Experience	Number	Percentage
Less than 7 years	4	22.22%
More than 7 years	14	77.78%
Total	18	100%

From the table above, we notice that the majority of teachers have a very long experience in teaching English. In which they have more than 7 years in teaching the English language at the university. While (22.22%) of teachers have less than 7 years. This means that teachers are aware about the different difficulties of teaching-learning process.

Question Three: Are you specialized in...?

Table 3.25. *Teachers' Specialty*

Teachers' Specialty	Number	Percentage
Linguistics	12	66.67%
Civilization	4	22.22%
Literature	2	16.67%
Total	18	100%

As indicated in the table above, the majority of teachers (66.67%) are specialized in linguistics, while four of teachers are specialized in civilization and only two of them in literature. This implies that the majority of teachers are specialized in the field of linguistics.

Question Four: How long have you been teaching writing?

Table 3.26. *Teachers' Experience in teaching Written Expression*

Teachers' Experience	Number	Percentage
1 year	5	27.78%
2 years	5	27.78%
3 years	3	16.67%
4 years	2	11.11%
5 years	2	11.11%
6 years	1	5.55%
Total	18	100%

As indicated in the previous table, the majority of teachers have been teaching written expression for one to three years. However, only few teachers have been teaching this interesting module from four to six years. So, teachers should acquire more experience in teaching this important module in order to improve students writing.

Section Two: Writing Creativity

Question Five: Do you consider writing as the most important skill for EFL learners?

Table 3.27. *The Importance of the Writing Skill for EFL Learners*

The Writing Skill Importance	Number	Percentage
Yes	11	61.11%
No	7	38.89%
Total	18	100%

According to the results obtained, the majority of teachers (61.11%) have considered that the writing skill as the most important skill for EFL learners. This indicates that teachers are aware about the role of writing for EFL learners as an important skill in which they need to develop in order to enhance their level. However, Seven teachers (38.89%) they do not think that the writing skill as the most important one; some of them they have said that speaking is the most important and some of them listening. However, no skill is more important than the other in which EFL learners should acquire the Four Skills (reading, speaking, listening and writing) in order to achieve success.

Question Six: How is the level of the majority of students in writing?

Table 3.28. *Teachers' Appreciation of Students' Level in Writing*

Teachers' Appreciation	Number	Percentage
Good	0	0%
Average	15	83.33%
Bad	3	16.67%
Total	18	100%

In the previous table, when asking teachers about students level in writing, Fifteen (83.33%) of teachers have considered that students' level in writing is average in general. This implies that the majority of teachers are not satisfied with students' level. Three of teachers have seen that students' level in writing is bad and none of them have seen that their level is good. This indicates that teachers are agree that learners need more work and efforts in order to improve their writing.

Question Seven: Which approach do you follow when teaching writing?

Table 3.29. *Approaches to Teaching Writing*

Approaches	Number	Percentage
The product Approach	4	22.22%
The process Approach	8	44.44%
The genre Approach	1	5.56%
The process-genre Approach	3	16.67%
Other	2	11.11%
Total	18	100%

The aim of this question is to know which approach do teachers follows when teaching writing. Eight (44.44%) of teachers follow the process approach in teaching writing. So, they prefer to teach their students the different steps and stages of writing. Four (22.22%) of teachers follow the product approach, which implies that they prefer to follow the traditional way of teaching. Three (16.67%) of teachers follow the process-genre approach and only one teacher follow the genre approach. However, only two teachers have opted for "other", they have stated that they follow the electric approach. This indicates that those teachers are aware about the benefits and importance of combining the best principles of each approach. From these results it is clear that the majority of teachers focus on the process approach.

Question Eight: Do you agree that the process approach to teaching writing encourages creativity in writing?

Table 3.30. *The Process Approach to Encourage Creativity in Writing*

Options	Number	Percentage
Agree	18	100%
Neither agree Nor disagree	0	0%
Disagree	0	0%
Total	18	100%

As indicated in the table above, the whole population (100%) declared that they agree that the process approach encourage creativity in writing. This indicates that following the different steps of writing and makes the student in a position to use his/her mental processes will encourage him to write in more creative way.

Question Nine: Are all your students creative in writing?

Table 3.31. *Teachers' Attitude about Students Creativity in Writing*

Options	Number	Percentage
From 80% to 100%	0	0%
From 60% to 80%	2	11.11%
From 40% to 60%	5	27.78%
From 20% to 40%	7	38.89%
From 0% to 20%	4	22.22%
Total	18	100%

It is obvious from the previous table that the majority of teachers have choose the third and the fourth options in which they considered that their students' creativity in writing do not exceed 40% to 60% and from 20% to 40%. Only two teachers have seen that their students' creativity can be from 60% to 80%, and Four teachers have opted the last option from 0% to 20%. These results indicate that teachers view about creativity is different from one teacher to another this depends on how one defines the term creative writing.

Question Ten: In which type do students show more creativity in writing?

Table 3.32.*Types of Students writings that Show More Creativity*

Types of Students writings	Number	Percentage
Stories	10	55.55%
Poems	3	16.67%
Novels	3	16.67%
Plays	0	0%
Other	2	11.11%
Total	18	100%

Table (3.32) demonstrates results about teachers' view about which type of writings that students show more creativity in. The majority of teachers (55.55%) selected stories. This implies that students who write stories have been considered as more creative students in writing. Three of teachers have seen students who write novels they considered as more creative ones', and other three teachers also they have selected plays. Only two teachers selected "other" in which they said writing good essays is an important type that shows the

students creative side of writing. So, each piece of writing can show learners creative side, they only need more time and work to enhance it over time.

Question Eleven: Which type of assessment do you follow when correcting students' creative writing?

Table 3.33.*Teachers' type of Assessment when Correcting Writing*

Types of Assessment	Number	Percentage
Self-assessment	0	0%
Teachers' assessment	10	55.56%
Both	8	44.44%
Total	18	100%

When asked teachers about which type of assessment they follow when correction writing, the majority of teachers' (55.56%) have opted for teachers' assessment. This indicates that teachers are aware about their role to judge learners work and improve their learning. However, Eight teachers (44.44%) have chosen both; self-assessment and teachers' assessment. So, teachers are aware about their own responsibility and view to assess students' creativity and they are aware that both self- assessment and teachers' assessment are important to enhance learners' writing creativity.

Section Three: The Use of Mind Mapping Software "Mind42" to Raise Creativity in Writing

Question Twelve: Do you advise your students to use Mind Mapping technique?

Table 3.34. *Teachers' Advising to Use Mind Mapping Technique*

Options	Number	Percentage
Yes	18	100%
No	0	0%
Total	18	100%

From teachers' responses to this question, it is clear that all teachers (100%) declared that they advise their students to use mind mapping technique. So, they are aware about the importance of this technique for students.

Question Thirteen: Do you think that Mind Mapping technique would help students develop their ideas easily?

Table 3.35. *Mind Mapping Technique as a Development tool*

Options	Number	Percentage
A lot	18	100%
A little	0	0%
Not at All	0	0%
Total	18	100%

According to the results revealed in the table above, all teachers (100%) have opted for the first option in which they think that Mind mapping technique would help students to develop their ideas easily. This reveals that all teachers are conscious about the essential role of this new technique.

Question Fourteen: Have you encouraged your students to use Mind Mapping techniques in creative writing?

Table 3.36. *Teachers' Encouragement to Use Mind Mapping Techniques*

Teachers' Encouragement	Number	Percentage
Always	2	11.11%
Sometimes	10	55.55%
Never	6	33.33%
Total	18	100%

From Eighteen teachers, Two of them have said that they always encourage their students to use mind mapping techniques in creative writing. Also, Ten of teachers have said that they only sometimes encourage their students to use these techniques. However, Six of teachers (33.33%) have opted for "Never". The results obtained show that the majority of teachers encourage and call their students to follow creative and different ways.

Question Fifteen: Do you know Mind Mapping Software applications(

Table 3.37. *Mind Mapping Software Applications*

Options	Number	Percentage
Yes	10	55.56%
No	8	44.44%
Total	18	100%

In this question teachers are invited to say whether they know and have an idea about mind mapping software application. The majority of teachers (55.55%) have said "yes". This indicates that the majority of teachers are aware about the role of electronic methods nowadays. However, Eight teachers (44.44%) they do not know these software applications. This implies that those teachers should search to know such new tools to be updated.

Table 3.37. (a) *The Use of Mind Mapping Software Application*

Options	Number	Percentage
Yes	5	50%
No	5	50%

The table above shows that 50% of teachers have used mind mapping software applications. However, the other 50% of teachers they do not used it. So, teachers' usage of electronic mind mapping techniques takes a medium position in our university.

Table 3.37. (b) *The use of Mind Mapping Software "Mind42"*

Options	Number	Percentage
Yes	1	20%
No	4	80%

According to the table above only one teacher has used "Mind42" and Four teachers do not use it. This indicates that this helpful technique is still unknown in our university and may be in the other universities too.

Question Sixteen: Do you think that students' writing creativity could increase through the use of electronic Mind Mapping techniques?

Table 3.38.*The Use of Electronic Mind Mapping Techniques to increase students writing creativity*

Options	Number	Percentage
Yes	18	100%
No	0	0%
Total	18	100%

From the table above, all teachers (100%) have seen that electronic mind mapping techniques could increase students' creativity. So, the results show the importance of these electronic techniques for the students to increase their writing creativity.

Question Seventeen

This question is designed to teachers' in order to add further information about this topic. Only Four teachers (22.22%) from Eighteen of teachers have added further information. The teachers' suggestions can summarised as follows.

- The use of mind mapping softwares in teaching is an important issue, however, is a bit difficult because of the lack of materials.

- Mind mapping as a teaching-learning strategy is very useful to help teachers and students to prepare, organize, and present lectures.

So, mind mapping software is an interesting tool or technique that will help the teacher/learner in the future.

3.3. Summary of Results and Findings from Students' and Teachers' Questionnaire

3.3.1. Students' Questionnaire

From the analysis of the students' questionnaire we find some important results about mind mapping techniques and how it can be used to enhance students' writing creativity.

The first section about general information shows that almost the majority of students have an average level in English. So, students' level can be enhanced. In section two, when we speak about writing the majority of students say that they appreciate writing in the English language while they face problems when write. So, they are aware about the importance of this skill. From the analysis of students' answers about the writing section, we can notice that the writing skill is consider as the most difficult one for EFL learners, as they consider the organization element as the most important element for effective writing. This section also reveals that the majority of students are aware about the importance of the process approach. So, they believe that this approach would help them to achieve better piece of writing. Moreover, the majority of students see that self-assessment as the most important way of assessment to improve writing. Hence, they ignore teachers' assessment.

According to the questions that we ask about mind mapping techniques in section three. Most of students' answers show that they are apply this technique when writing, also they are encouraged through their teachers to use it. So, the majority of students believe that mind mapping is a useful technique that can help them in the writing process. Also, students were asked if they prefer to use mind mapping software or the traditional way of mind mapping; the majority of response "Yes". This indicates that students know the importance of using technology in learning nowadays. Moreover, this section reveals that mind mapping software application is useful technique for raising students' writing

creativity in which they declare that the use technology makes the student more motivation to write.

Finally, we ask students about their suggestions about using mind mapping software in the teaching-leaning process, many answers are similar; answers such as; using mind mapping software helps students to maintain the modern world, and using such new ways will motivate students to be more creative.

3.3.2. Teachers' Questionnaire

Similar to the students' questionnaire, the data we collect from teachers' questionnaire reveals some important results concerning the relationship between our variables; using mind mapping software application and writing creativity. Majority of teachers have a long experience in teaching the English language as well as written expression module; which makes them the power to evaluate, judge, and provide more reliable and important answers. The majority of teachers state that the writing skill is the most important skill for EFL learners. This indicates that teachers are aware about the difficulty of this skill for learners. We ask Teachers about which approach they follow when teaching writing, most of them they prefer the process approach and all of them they state that they agree that this approach encourages creativity in writing. Moreover, what is noticeable is that all teachers advise their students to use mind mapping technique in their learning process because they believe that this technique would help them to develop their ideas easily. This indicates the effectiveness of this technique and its importance. Furthermore, concerning mind mapping software applications, the majority of teachers know it, while, only few of them use it, and only one teacher from Eighteen teachers uses mind mapping software "Mind42". This implies that electronic mind mapping still unknown enough in our University. Whereas, all

teachers think that students' writing creativity would increase through the use of electronic mind mapping techniques.

Conclusion

The analysis of students' and teachers' questionnaire reveals the positive attitudes towards mind mapping software application to improve students' writing creativity. From the analysis of these questionnaires we have found that the majority of students face difficulties with the writing skill. So, they need to find ways and solutions to improve their writing and make their writing more creative. Students' responses showed that they are aware about the difficulty of the writing skill and its importance; and they need more work and effort to improve and enhance it. So that they resort to use new ways as mind mapping software to develop their writing creativity. Moreover, teachers' responses showed that they are aware of their students' problems and weaknesses also they know their important role in improving their students' writing creativity through the use of different educational ways, techniques and strategies.

General Conclusion

1. Concluding Remarks

English learners face multiple difficulties in writing which negatively affect their writing proficiency and creativity. Therefore, they need to be able to learn how to use different techniques in writing in order to achieve their goal to write creatively. As indicated in the results of this research, learners need to be more aware about the importance of writing in their life in general not only in their learning process, and they need to be aware about the various ways, methods, and techniques that may be make them more good or professional writers. Moreover, what learners need to take into consideration is using new technological tools which are beneficial for them as; Mind mapping software techniques to facilitate the process of learning. Learners need to be motivated and encouraged to use and apply such new techniques to become more active and creative in writing. More important, teachers have to raise their learners' awareness towards writing creativity and they should modernize learning through using new ways to raise learners' awareness about modern learning tools.

2. Pedagogical Implications

The main purpose of the research is to increase learners' writing creativity and to direct learners towards the use of Mind Mapping Software "Mind42".

Learners need to be more responsible for their learning and they need to be more creative in their writing. Therefore, mind mapping technique can be addressed by teachers as an appropriate teaching technique; that can help students to enhance their writing in order to gain time and effort. Also, mind mapping software "Mind42" may help learners'

to develop their way of thinking and writing. In addition, it increases learners' ability to write in creative way easily. Hence, mind mapping software techniques in general can be used as new and modern teaching-learning tools in which learners can feel more comfortable, active, and creative when they use it during the learning process especially in writing.

3. Research Perspectives and Limitations

This study has limitations. Basically, the research is limited in scope; it explores the Role of Mind Mapping Software "Mind42" to enhance writing creativity in a small number of Second Year students of English, So that it cannot be generalized to other contexts or levels. Another limitation that needs to be declared here is time shortage. Longer time would help to use multiple and different tools and a huge number of students. Also, it permit us to make tests or experiments. However, findings could not be generalized unless this study is increased to reach validity.

References

Anderson, C., & Byrne, R. (2011). Online Mind Mapping. In S. Mcleod, & C. Lehmann
(Eds.), What *school Leaders need to know About Digital Technologies and Social
Media*. Retrieved May 18, 2019, from https://books.google.dz/books

Biage,. (2018, October15). Full Mind mapping Software Review-All you need to know
About Mind42. *Skyose*. Retrieved May 20, 2019, from http:// Skyose.com

Bohm, A. (1998). *On Creativity*. New York: Harper& Row, Publishers.

Brooks, A. & Penn, C. (1970). *Study English: A Course in Written English for Academic
and Professional Purposes*. Cambridge University Press.

Brown, K. & Hood, S. (1989). *Writing matters: Writing skills and strategies for students
of English*. Cambridge: Cambridge University Press.

Buzan, T., & Buzan, B. (1994). *The Mind Map book: how to use radiant thinking to
maximize your   brain's untapped potential.* USA: Dutton.

Buzan, T. (1996). *The Mind Map book.* New York: Plume Book.

Buzan, T. (2005). *The ultimate book of mind maps: Unlock your creativity, boost your
Memory, change your life.* London: Thorsons.

-----.(2006). *The Buzan study skills handbook: the short cut to success in your studies
with Mind Mapping, speed reading and winning memory techniques*. BBC Active.

Byrne, D. (1979). *Teaching writing skills*. London: Longman.

-----.(1988). *Teaching writing skills (5thed)*. London& New York: Longman.
Cambridge University Press.

Cannatella, H. (2004). Embedding Creativity in Teaching and Learning. *Journal of Aesthetic Education*, 38(4).

Crystal, D. (1999). *The Cambridge Encyclopedia of language*. Cambridge: Cambridge University Press.

Eisterhold, J. C (1990). Reading-writing connections: toward a description for second language learners. In B. Kroll (Ed), *Second language writing: Research insights for classroom* (pp.88-108). Cambridge: Cambridge University Press.

Ferris, J., & Snyder, G. (1986). Writing as an Influence on Reading. *Journal of Reading*, 29(8), 751-756.

Filsaime, M. (2010). *Resource Report*. Retrieved from http://books.google.dz.

Frey, C. (2010). *Power Tips and Strategies for Mind Mapping Software: Supercharge yourvisual mapping skills with these, tricks and best practices*(3rd ed). Innovation Tools.

Gabrielatos, C. (2000). EFL Writing: Product and Process. *ELT News*, 133, 134, 135.

Gomez, G. J. (2007). What do we know about creativity?. *The journal of effective teaching: an online journal devoted to teaching excellenc*e, 7(1), 31-43.

Grammar.(2018).*Oxford Dictionary of English*. Retrieved February 10, 2019, from

   https://play.google.com/store/apps/details?id=com.mobisystem.oxford.dictionary

   ofenglish.

Halliday, M., & Hasan, R. (1976). *Cohesion in English*. London: Longman.

Harmer, J. (2007). *The practice of English language teaching*. Cambridge, Uk: Longman.

Hasan, K., & Akhand, M. (2010). Approaches to Writing in EFL/ESL Context: Balancing

   Product and Process in Writing Class at Tertiary Level. *Journal of NELTA*, 15(1-2), 77-

   88.

Hedge. T. (1988). *Writing*. Oxford: Oxford University Press.

-----. (2000). *Teaching and learning in the language classroom*. Oxford: Oxford

   University Press. Heinle publishers.

Hyland. K. (2003). *Second language writing*. Cambridge: Cambridge University Press.

Johnson, A. P. (2008). *Teaching reading and writing: A guidebook for tutoring and

   remediating students.*USA: Rowman and Littlefield Education.

Kroll, B. (2001) *Considerations for teaching an ESL/EFL writing course. In M. Celce-

   Murcia(ed.) Teaching English as a Second or Foreign language*. (3rd ed.). Boston,

   MA:Heinle &Heinle.

Keengwe, J. (2018). Handbook of Research on Mobile Technology, Constructivism, and

   Meaningful learning. Retrieved May 18, 2019, from http://books.google.dz

Knee, R. (2013). *The official biography of Tony Buzan: the man who introduce the world to Mind Maps.* UK: Filament Puplishing LTD.

Lado, R. (1961). *Language testing: The construction and use of foreign language tests.* London: Longman.

Langan, J. (2012). *English Skills*. New York: MCGraw Hill.

Leo, K. (2012). Investigating Cohesion and Coherence Discourse Strategies of Chinese students With Varied Lengths of Residence in Cannada. *TESL Canada Journal*, 29(6), 157-179.

Lynch, T. (1996). *Communication in the language classroom*. Oxford: Oxford University Press.

Mento, A. J., Martinelli, P. &Jones, R. M. (1999). Mind mapping in executive education: Applications and outcomes. *Journal of Management Development. 18*(4), 391.

Murry, N. & Hughes, G. (2008). *Writing up your university assignments and research projects: A practical handbook*. UK: McGraw-Hill Education.

Parson, G. (1985).*Hand in Hand: the Writing Process and the Microcomputer*. Juneau, AK: Alaska State Department of Education.

Reid, A. & Petocz, P. (2004). Learning domains and the process of creativity. *The Australian Educational Researcher*, *31*(2).

Rustler, F. (2012). *Mind Mapping For Dummies*. England: John Wiley& Sons, Ltd.

Santiago, C. H. (2011). Visual Mapping to enhance Learning and Critical Thinking Skills. *Optometric Education*,36(3), 126.

Schuster, S. (2007). About. *Mind42*. Retrieved May 20, 2019, from http:// Mind42.com/ about.

----. (2007). My Mind maps. *Mind42.* Retrieved May 20, 2019, from http:// Mind42.com/guide.

Seely, J. (1998). *Oxford: Guide to effective writing and spelling.*Oxford: Oxford University Press.

Starkey, L. (2004). *How to write great essays*. New York: Learning Express.

Tangkiengsirisn, S. (2006). Approaches to teaching second language writing. *Language Institute journal*, 3 (1-26), p.1.

Tribble, C. (1996). *Writing*. Oxford: Oxford University Press.

Tuan, L. T. (2010). Enhancing EFL Learners` Writing skill via Journal Writing. *English Language Teaching*, 3. Retrieved February 15, 2019, from ccsenet.org/journal/index.php/ elt/article/view/7217

Vitulli, P., Giles, R. (2016). Mind Mapping: Making Connections with Images and Color. *Delta Journal of Education*, 6(2), 6.

White, R., & Arndt, V. (1991). *Process Writing.* London: Longman.

Wilkins, D. A. (1972). *Linguistics in language teaching*. University of Michigan: MIT Press.

Williams, J. (2003). *Preparing to teach writing: Research, theory, and practice. Lawrence Erlbaum Associates, Third edition*.

Yi, J. (2009). Defining writing ability for classroom writing assessment in high schools. *Pan- Pacific Association of Applied Linguistics*, 13(1), 53-69.

APPENDICES

Appendix One

Students' Questionnaire

Dear Students,

Our research is entitled "Raising Students' Writing Creativity through the use of Mind Mapping Software "Mind 42". We would be grateful if you could answer these questions to provide us with introductory information about your writing creativity and using mind mapping software. Your answers are very important for the validity of the research we are undertaking. As such, we hope that you will give us your full attention and interest.

Please, Mark (X) in the appropriate box(es) or give full answer(s) on the broken lines.

Guemriche Aya

Department of English

University of 8 Mai 1945, Guelma

Section One: General Information

1. Age: ……… Years.

2. How long have you been studying English?

………… Years.

3. How could you describe your level in English?

Good [ ]

Average [ ]

Bad [ ]

Section Two: Writing Creativity

4. Do you appreciate writing in the English Language?

Yes [ ]

No [ ]

- If no, what are the reasons behind that?

Lack of writing proficiency [ ]

Difficulty of the writing skill [ ]

Other [ ]

5. According to you which of the following skills is the most difficult(one option)?

Reading [ ]

Listening [ ]

Writing [ ]

Speaking [ ]

6. How is your level in writing?

Good ☐

Average ☐

Bad ☐

7.To which element you give more importance when writing? (one option)

Punctuation ☐

Spelling ☐

Organization ☐

Grammar ☐

Vocabulary ☐

8. Which type of assessment is more important to improve writing?

Teachers' assessment ☐

Self-assessment (students' assessment) ☐

9. Which approach does your teacher(s) advise you to follow in writing? (one option)

The product approach (following a model/example) ☐

The process approach (planning-drafting-revising-editing) ☐

10. Which approach is the best in developing the writing skill?

The product approach ☐

The process approach ☐

11. Do you agree that students' creativity in writing is highly interesting?

Yes ☐

No ☐

12. Which approach to teaching writing encourages creativity in writing?

The product approach ☐

The process approach ☐

13. Are you creative in writing?

Yes ☐

No ☐

-If yes,what do you do as a creative writer? (one option or more)

I write poems ☐

I write short stories ☐

I write novels ☐

I write plays ☐

Other ☐

-if you write other genres please specify below:

………………………………………………………………………………………….

Section Three: The Use of Mind Mapping Software "Mind 42" to Raise Creativity in

Writing

14. What is the most difficult step in writing?

Planning ☐

Drafting ☐

Revising ☐

Editing ☐

15. How important is planning in the writing process?

Very important ☐

Important ☐

Not important ☐

16. Do you apply mind mapping techniques when writing?

Yes ☐

No ☐

17. Do you agree that teachers should encourage students to use mind mapping techniques?

Agree ☐

Neither agreenor disagree ☐

Disagree ☐

18. Do you think that following mind mapping techniques would help you produce better ideas?

Yes ☐

No ☐

19. Do you know mind mapping software applications (electronic mind mapping)?

Yes ☐

No ☐

-If yes, do you know mind mapping software "Mind 42"?

Yes ☐

No ☐

-If yes, have you ever used it?

Yes ☐

No ☐

20. Do you think that mind mapping software application is better than traditional mind mapping?

Yes ☐

No ☐

21. Do you agree that mind mapping software is a useful technique for raising students' writing creativity?

Agree ☐

Neither agree nor disagree ☐

Disagree ☐

22. How could mind mapping software raise students' creativity?

The use of technology make students more motivated to write their ideas ☐

Using mind mapping software saves students' time ☐

Mind mapping software makes the writing process flexible ☐

Other ☐

-If you have other suggestions please write them below.

……………………………………………………………………………………………

23. Could you please add further information about this topic?

……………………………………………………………………………………………

……………………………………………………………………………………………

Thank you for your cooperation

Appendix Two

Teachers' Questionnaire

Dear Teachers,

You are kindly requested to fill in the present questionnaire which is a part of a research work entitled "Raising Students' Writing Creativity through the use of Mind Mapping Software "Mind 42". Be sure that your answers will help us identify this aim.

Please, put a tick (√) in the appropriate box(es) or give full answer(s) on the broken lines. Thank you in advance for your precious help.

Guemriche Aya

Department of English

University of 8 Mai 1945, Guelma

Section one: General Information

1. What is your qualification?

License

Magistère/Master

Doctorate

2. How long have you been teaching English at the University (including this year)?

………years.

3. Are you specialized in...?

Linguistics

Civilization

Literature

4. How long have you been teaching writing (including this year)?

………years

Section Two: Writing Creativity

5. Do you consider writing as the most important skill for EFL learners?

Yes

No

-If no, which skill do you think is the most important one?

………………………….

6. How is the level of the majority of students in writing?

Good

Average

Bad

7. Which approach do you follow when teaching writing?

The product Approach ☐

The process Approach ☐

The genre Approach ☐

The process-genre approach ☐

Other ☐

-If you follow another approach, would you please state it below

……………………………………………………………………………………………….

8. Do you agree that the process approach to teaching writing encourages creativity in writing?

Agree ☐

Neither agree nor disagree ☐

Disagree ☐

9. Are all your students creative in writing?

From 80 % to 100 % ☐

From 60 % to 80% ☐

From 40 % to 60 % ☐

From 20 % to 40 % ☐

From 0 % to 20 % ☐

10. In which type do students show more creativity in writing?

Stories ☐

Poems ☐

Novels ☐

Plays ☐

other ☐

-If they are creative in another type(s), would you please specify it below

………………………………………………………………………………………….

11. Which type of assessment do you follow when correcting students' creative writing?

Self-assessment ☐

Teachers' assessment ☐

Section Three: The Use of Mind Mapping Software "Mind 42" to Raise Creativity in Writing

12. Do you advise your students to use Mind Mapping technique?

Yes ☐

No ☐

13. Do you think that Mind Mapping technique would help students develop their ideas easily?

A lot ☐

A little ☐

Not at all ☐

14. Have you encouraged your students to use Mind Mapping techniques in creative writing?

Always ☐

Sometimes ☐

Never ☐

15. Do you know Mind Mapping Software applications(electronic mind mapping)?

Yes ☐

No ☐

a-If yes, have you used some of them?

Yes ☐

No ☐

b-If yes,have you ever used Mind Mapping software "Mind 42"?

Yes ☐

No ☐

16. Do you think that students' writing creativity could increase through the use of electronic Mind Mapping techniques?

Yes ☐

No ☐

17. Could you please add further information about this topic?

………………………………………………………………………………………………

………………………………………………………………………………………………

……………………………………………

Thank you for your cooperation

الملخص

يهدف هذا البحث لاستقصاء دور برنامج الخارطة الذهنية" مايند فورتو " في تحسين ابداع الطلبة في كتاباتهم. و قد وظعت هذه الدراسة لتقييم فرضية ما اذا كان استعمال تقنية برنامج الخارطة الذهنية يحسن ابداع الطلبة في كتاباتهم. و من اجل تحقيق اهداف البحث, تم اتباع المنهج الوصفي الكمي, كما تم تحضير استبيان للطلبة و اخر للاساتذة من اجل جمع المعلومات الازمة لهذا البحث, حيث وزع الاستبيان الاول على 114 طالبا بالسنة الثانية في قسم اللغة الانجليزية بجامعة 8 ماي 1945 بقالمة. اما الثاني فقد وزع على 18 استاذا يدرسون مقياس التعبير الكتابي. و بعد تحليل نتائج البحث, تم التوصل الى ان برنامج الخارطة الذهنية تقنية مساعدة و فعالة في عملية التعليم و التعلم. و يمكن ان يحسن بشكل ايجابي من ابداع الطلبة في كتاباتهم. و لهذا يستوجب استعمال تقنيات جديدة و فعالة في تعليم و تعلم الكتابة.

الكلمات المفتاحية : خريطة ذهنية, برنامج, دراسة, كتابة, ابداع, تقنية