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DEVELOPING METACOGNITIVE AWARENESS IN WRITING: AN INSTRUCTIONAL FRAMEWORK FOR LMD EFL STUDENTS

Thesis submitted to the Department of English in candidacy for the degree of Doctorate in Applied Linguistics and TEFL

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2015

STATEMENT OF ORIGINALITY

I hereby declare that this submission is my own work, and that it contains no material previously published or written by another person nor material which has been accepted for the qualification of any other degree or diploma of a university or other institution. I also certify that the present work contains no plagiarism and is the result of my own investigation, except where otherwise stated.

Mrs. Samira ARAR

Date: 01/09/2015

DEDICATION

To the memory of my mother, who would have been so proud

To my father, whose courage and devotion have inspired me all my life

To my husband and my children, who are the reason of my existence

To my brothers, my sisters, and their respective families

To all my friends

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ABSTRACT

At the University, writing is not only a language learning and testing tool, but also a highly cognitive skill prerequisite for academic success. Nevertheless, despite many years of exposure to English language learning, Algerian EFL students display writing and learning underachievement. This is believed to be due to a lack of a learning and writing strategies instruction. This doctoral research work attempted to explore the interrelationship between writing, learning and thinking, and to suggest an academic framework that would promote learning and writing strategies alike by developing metacognitive awareness in the writing process, through a blended learning instructional model that combined principles from the Cognitive Academic Language Learning Approach and Computer-Assisted Instruction. For this purpose an experimental study was conducted with first year students at the English Department (Blida University) using different teaching and investigative techniques, mainly a metacognition-raising questionnaire, self and peer reflection/evaluation sheets, classroom conferencing, a distant learning platform, and the analysis of the students' writing and EFL grades. The implemented framework proved to be successful in raising students' metacognitive awareness in writing, and led to the informants' academic achievement both in writing and in English learning. Nevertheless, the consideration of the different analytical procedures highlighted students' writing and learning needs and consequently required enriching the formerly-suggested model with another approach (Writing Across the Curriculum) in order to meet those needs and arrive to a more effective writing and EFL university instruction. Therefore, this experimental study resulted in acknowledging the importance of raising students' metacognitive awareness in writing for academic success, and recognised the need for technology contribution in EFL learning/teaching, in order for students to adhere to digital communication. The proposed instructional model is then highly recommended, mainly within the LMD context where reflective and self-regulated learning as well as learner autonomy represent major objectives.

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LIST OF ABBREVIATIONS AND ACRONYMS

AF	Absolute Frequency
BAC (exam)	Baccalaureate examination (Entrance examination for the university)
BEM	Brevet d'Enseignement Moyen (Entrance examination for the Secondary School)
CAI	Computer Assisted Instruction
CALLA	Cognitive Academic language Learning Approach
CAW	Computer Assisted Writing
CBA	Competency Based Approach
CBI	Content Based Instruction
CLT	Communicative Language Teaching
Coef	Coefficient
CTR	Control (group)
EAP	English for Academic Purposes
EFL	English as a Foreign Language
ELT	English Language Teaching
ESP	English for Specific Purposes
EXP	Experimental (group)
ICTs	Information and Communication Technologies
L1	First language
L2	Second language
FL1	First foreign language (French)
FL2	Second foreign language (English)
FL3	Third foreign language (Spanish or German)
LMD	Licence, Master, Doctorate
M-learning	mobile learning

Max	maximum
Min	minimum
MS1	First Middle School Year
MS 2	Second Middle School Year
MS 3	Third Middle School Year
MS 4	Fourth Middle School Year
MT	Mother Tongue
NSs	Native Speakers
NNSs	Non Native Speakers
OWL	Online Writing Library
RF	Relative frequency
SBI	Strategy Based Instruction
SE 1	First Secondary-School Year
SE 2	Second Secondary-School Year
SE 3	Third Secondary-School Year
SLA	Second Language Acquisition
SPSS	Statistical Package for Social Ssciences
TEFL	Teaching English as a Foreign Language
TL	Time Load
UE	Unité d'Enseignement
UEF	Unité d'Enseignement Fondamentale
UED	Unité d'Enseignement Découverte
UEM	Unité d'Enseignement Méthodologie
UET	Unité d'Enseignement transversale
VLE	Virtual Learning Environment
USDB	Université Saad Dahlab Blida
WAC	Writing Across the Curriculum

GENERAL INTRODUCTION

GENERAL INTRODUCTION

For many decades after independence, the Algerian University has strived to achieve its fundamental objectives for national development and cope with worldwide changes. And because of gobalisation requirements, the successful teaching and learning of EFL has become one of its objectives. Nevertheless, our university graduates end up their education with low an achievement that does not reflect the wide exposure to the target language learning, the energy of teachers, or the administrative facilities devoted to the service of a successful instruction. These learners strive to have their 'Licence' degree with the hope of becoming proficient learners, future competent teachers, or efficient workers; in a word, efficient citizens. The truth is unfortunately deceiving since these graduates display a low proficiency level and poor strategies mastery, mainly in basic language skills, among them writing.

In order to improve learning quality, satisfy needs of labour market, provide opportunity for lifelong learning, and increase international mobility of Algerian faculty and students, the LMD system has been introduced in the Algerian University. Nevertheless, the type of instruction administered to EFL students does not reflect the real objectives of such an international system. Therefore, the current type of instruction does not seem to represent a real reform of the preceding one as it is still done in a traditional way, nor does it correlate with pre-university levels of EFL education. Overall, writing and learning strategies are (still) not given due importance.

At the University, writing is the principal means by which learning and testing are done. Writing and learning are interrelated; furthermore, learning to write effectively can be considered as one of the most prominent keys to success at university level and beyond (Creme and Lea, 2003; Northedge, 2005). However, and despite a wide exposure to the target language, EFL students end up their study years with weak learning and writing proficiencies. This is so, it is believed, because of a total absence of a learning and writing strategies instruction. This study

attempts, therefore, to explore the interrelationship between writing, thinking, and learning, and to suggest an academic framework that would promote, within the LMD context, students' metacognitive awareness through a learning and writing strategy-based instruction. This work relies on related literature and on researches and experiments conducted in this field at a worldwide level, but also relies on personal critical thinking, field-research observations, and triangulation procedures.

Writing is an essential skill in the acquisition of EFL; it is a compulsory subject-matter for university students preparing a 'Licence' in English. However, writing is seen by most students (and teachers) not as a learning (or teaching) tool but as a burden; in addition, writing has long been neglected by syllabus designers, and this has had a bad impact on students' writing performance; be it during their university studies or during their teaching career. Furthermore, a common problem EFL students face is learning and remembering the vast amounts of information they are required to read and process through the numerous and different subject-matters they have. Likewise, writing at university level involves a number of complex activities such as being aware of tasks requirements, ways of monitoring and regulating the task performance, and ways of assessing the performed tasks. These activities all require from students metacognition, which is the ability to think about and control one's learning (Flavell, 1976, 1979). What university students need is a kind of instruction that develops their writing and learning strategies. Moreover, because of the interrelationship between writing and learning (Emig, 1977), success in developing writing strategies would lead to overall success in EFL learning. Thus, in order for EFL learning to be successful, writing instruction has to be reconsidered so that it meets learning needs, especially within the LMD context. The pedagogical instruction has to be reframed according to a new perspective which considers writing not only as learning and a testing skill, but as a functional skill and a key subject-matter whose renovation and improvement would lead to short and long term results. The main objective of this research is thus to suggest an innovative writing instructional framework which aims at developing metacognitive awareness in writing in order for students to achieve satisfactory mastery of writing

in particular, and so improve their proficiency in the English language in general. In essence, this work aims at discussing the following research questions:

1- What instructional model would develop metacognitive awareness in writing and achieve satisfactory mastery of this skill, at University level?
2- Would the development of metacognitive awareness in writing lead to academic achievement in writing and in EFL learning?
3- How can e-learning enhance writing and learning strategies instruction?

These questions need careful consideration and a thoughtful plan as many variables are involved. In order to be able to answer these questions in an academic way, the following hypotheses have been formulated:

1- Developing students' metacognitive awareness in writing requires an instruction that combines Cognitive Academic Language Learning Approach and Computer Assisted Writing.
2- The development of metacognitive awareness in writing is likely to develop learning awareness and also lead to academic success in writing and in EFL learning.
3- The implementation of technology-enhanced instruction, namely by combining face-to-face and technology-based distance-learning, will encourage and facilitate students' performance in writing and thus would lead to better academic achievement.

Writing is a must at all levels, but most importantly at university level because of the type of instruction and evaluation. Furthermore the technological expansion has imposed on every learner the necessity to manipulate software and hardware. Globalisation requires from our learners to be competent writers since the processed word has gained importance over the written word, moving the world toward technology-dominated communication. Consequently, the academic framework suggested in this research work is inspired from different

methodologists who strive to improve language learning and writing through different methods: The first type of researchers stress the need to develop writing competence in learners because of the technological revolution that is made more evident at worldwide level through globalization, and thus writing is granted a renewed concern because of a self-evident 'digital communication'; these academics defend a computer-assisted writing approach (Sullivan and Pratt, 1999; Schwartz *et al*., 2007). The second type of researchers are specialized in learning strategies as a whole, namely O'Malley and Chamot (1990, 1999) who advocate CALLA (Cognitive Academic Language Learning Approach), an approach which is task-based in essence and combines content, language and learning strategies, and which values the role of metacognition in language learning. This approach is also based on an explicit learning strategies instruction for an ultimate aim that is producing more active, proficient and autonomous learners. The suggested instructional framework consists principally in developing learners' metacognitive awareness in writing in order for students to achieve satisfactory mastery of writing in particular, and so improve their proficiency in EFL. The primary aim is raising metacognitive awareness in writing, but the ultimate goal would be awareness and self-regulation in EFL learning in general.

The present doctoral work consists in an experimental study involving an experimental group (EXP) and a control (CTR) group, each one including 30 learners, among first year LMD students enrolled in the department of English (Blida University). The experimental study is conducted during the second semester of the academic year (2011-2012). The aim of the present experiment is to investigate the effectiveness of the suggested instructional model and its impact on the EXP group performance, in comparison with the CTR group which has not received the type of writing instruction. To this end, a triangulation process comprising different research tools has been used: semi-structured interviews at different phases of the experiment, a metacognition-raising questionnaire administred to both groups under study before and after the treatment, scores analysis of informants' writing and EFL grades, a strategy-based writing instruction implemented only with EXP group, and a distance learning platform exploited also

only by EXP group. The different investigative procedures will attempt to provide classroom-based empirical data in order to trace students' evolution of their metacognitive awareness in writing, as well as to evaluate students' development of writing and EFL proficiency according to three variables: awareness in writing, awareness in learning, and academic success. The different steps of the study will basically investigate the connections between writing, thinking and learning, the nature of university writing instruction, the need for building metacognitive awareness in writing, and the possibility of instituting an e-writing / learning in the Algerian University. Therefore, this doctoral thesis is divided into six chapters which attempt to elucidate theoretical, contextual and practical aspects of the problem.

Chapter One lays the theoretical foundation for the whole research work by shedding light on the main concepts of the study. This chapter tries then to explain the interrelationship between writing, thinking, learning, and technology, and also between writing strategies and learning strategies. Therefore writing is explained and explored as a thinking and a learning skill. In addition, writing pedagogy is examined in terms of teaching and testing principles, including technology-enhanced writing instruction. Furthermore, writing and learning strategies are investigated. Moreover, metacognition and metacognitive awareness in writing are considered in order to provide a basis for the subsequent chapters.

Chapter Two tries to provide a systemic description of the educational context in Algeria, with reference to the EFL writing skill in higher education, specifically within the LMD context. It strives to investigate the status of EFL teaching/learning at pre-University and University levels, in terms of learners' background knowledge, current learning practices, and possible lacks/needs. For such a purpose, the Algerian English Framework together with the objectives and syllabuses for EFL at the different levels are portrayed. In addition, different variables related to the teaching of the writing skill are considered: the place English has in the Algerian society, students' background EFL education in the pre-university and university levels, the place metacognitive instruction and technology

in the different levels of education, teachers' training and development, along with English and writing programmes and evaluation practices. This sociolinguistic, educational, and learner-profile inquiry would serve as a needs-analysis procedure that would benefit the interpretation and debate of the coming research results.

Chapter Three describes the research methodology adopted for this research, with details on the research design and the investigative procedures that are carried out in order to implement the proposed framework. It also sheds light on the evaluation procedures chosen to check the extent of success of the instruction. Basically, this chapter includes a description of the informants of both groups under study (EXP and CTR), in addition to a description of the different research tools, and to a description of the three main phases of the experiment: pre-, while- and post-instruction. The analysis of the results obtained via the different research instruments are treated by using qualitative, quantitative and statistical techniques.

Chapters Four provides an analysis of the results obtained through the different research instruments (the questionnaire, the interview, and the scores analysis), during the pre- and while-instruction phases. Partial conclusions are drawn and then cross-compared with those of the fifth chapter results. In fact, learners' development of their metacognitive awareness through the application of different techniques is investigated in an exploratory fashion by examining the effect of the proposed instruction (as the independent variable) on students' awareness in writing, awareness in learning and in academic success (as dependent variables).

Chapter Five investigates the impact of the instructional framework on EXP informants and thus provides a possibility to confirm or not the afore-mentioned research hypotheses. The different research tools: the interviews, the questionnaire, and the scores analysis are under scrutiny and the obtained findings are used to make a close comparison between EXP and CTR groups for the sake of drawing research conclusions and suggest pedagogical implications.

Chapter Six attempts to suggest a modified and improved instructional framework to teaching writing at university level. It takes into consideration learners' needs and weaknesses emerging during the three phases of the experimental study. Therefore, the (new) proposed framework tries to cater for students' writing and learning needs, by appealing to a blended instruction with different yet complementary approaches that would help achieve the desired educational goals.

The ultimate aim of the study is to find an instructional model of EFL writing that would enhance students' metacognitive awareness in writing, and that would lead them to monitor their own learning and eventually achieve autonomy. By so doing, the students are aimed to succeed in writing, in EFL, and in lifelong learning. The guiding belief behind this research work is to attribute writing its due importance in EFL instruction, and above all to endow our learners with necessary writing and learning strategies that would prepare them for the digital world of tomorrow, where learning, thinking, autonomy, and technology are interwoven.

CHAPTER ONE

WRITING AND LEARNING STRATEGIES

CHAPTER ONE

WRITING AND LANGUAGE LEARNING STRATEGIES

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1.1. Introduction

Writing has been granted a different emphasis throughout the different teaching approaches and methods. It was highly considered in the Grammar Translation Method for which it was a major component, as writing was an invaluable learning tool and a requirement for the translation of literary texts. Later, writing was almost neglected in the Audio-Lingual Approach which emphasized speech over writing. With Communicative Language Teaching, however, writing gained a better place since focus was on fluency rather than on accuracy in all skills. Nevertheless, writing was long attributed a last place in every unit in an EFL syllabus, resulting as such in a writing and language learning failure on the part of EFL learners. Yet, current research in the field has renewed interest in writing as a functional skill which promotes language learning. Scholars have also highlighted the interrelationship between writing, thinking and learning, and so the importance of teaching writing and learning strategies alike (Emig, 1977; Elbow, 1994; Fulwiler, 2002; Galbraith**,** 2009; Harklau, 2002). Moreover, the type of instruction at university level requires from students to learn and remember vast amounts of information in the different modules; in addition, they have to be competent writers both for learning and testing purposes, and even be competent computer users because of the overwhelming role of technology in educational and professional settings. Therefore, these learners have to be trained how to reflect and monitor their own learning, and develop writing and learning awareness during the writing/learning process. The first chapter will then attempt to tap into the knowledge of educationalists and professional linguists in order not only to have a clear picture about what writing is and how it should be taught, but also explore the link between writing, thinking, learning, and technology, and so between writing strategies and learning strategies.

1.2. Writing Defined

To acquire a language, four skills are needed: listening, speaking, reading and writing. These skills are often classified into oral and written skills and into receptive and productive skills. Writing is thus a productive skill in the written mode. According to The Online Encyclopedia of Writing Systems and Languages, "writing is a method of representing language in visual or tactile form. Writing systems use sets of symbols to represent the sounds of speech, and may also have symbols for such things as punctuation and numerals". However, writing involves not only the graphic representation of speech (on paper or a computer screen), but also the expression and organisation of ideas according to the conventions of the language. These conventions concern grammar, vocabulary, handwriting, spelling, layout and punctuation (Harmer, 2001). Hedge (1988:89) adds that an equally important aspect of writing is crafting which she explains as "the way in which a writer puts together the pieces of the text, developing ideas through sentences and paragraphs within an overall structure"; therefore, writing is also referred to as composing. Furthermore, writing is a form of communication to deliver thought or to express feelings through written mode (Harmer, 2004). The essential idea is that "Writing involves knowledge about language, knowledge of the context in which writing happens and especially the purpose and skills in using language."(Badger and White, 2000: 157-158). Writing is also a creative and a discovery process which enables learners to describe facts, express ideas, and even discover ideas and ways of organising them, and impart knowledge to the reader (White, 1987; Fulwiler, 2002). In this context, Fulwiler, (2002: 15-16) clarifies that "when you write, you explore your memory, texts, neighborhoods, the news, the Internet, and the library". Deeper researches additionally reveal that writing is a thinking process (Sinclair, 2010), and also the result of a number of cognitive operations, Hedge (1988: 303).

In fact, the cognitive aspect of writing has been explored by Flower and Hayes (1981) who define writing in terms of problem-solving. Hedge (2000: 302) further posits that writing results from employing strategies to manage the composing process, and that it involves a number of activities: “setting goals, generating ideas, organizing information, selecting appropriate language, making a draft, reading and reviewing it, then revising and editing”. For these reasons, writing is often referred to as 'the most difficult skill' even for native speakers of a language. Nevertheless, in addition to the fact that it is a language skill in its own right, writing is essential for language reinforcement, for consolidating learning, and for testing (Rivers, 1968; Harmer, 1998). Moreover, writing is believed to help achieve human growth since, as (Kane, 2000: 3-4) posits:

> We create ourselves by words. Before we are businesspeople or lawyers or engineers, we are human beings. Our growth as human beings depends on our capacity to understand and use language. Writing is a way of growing. No one would argue that being able to write will make you morally better. But it will make you more complex and more interesting _in a word, more human.

In short, writing is basically the (concrete) graphic representation of sounds, on paper or on a screen, into words, sentences, paragraphs or larger texts, in order to convey (abstract) meaning, according to conventions of the written code (rules). Writing represents an act of communicating, thinking, learning, exploring, and problem-solving. Thus, writing requires from the writer (or the learner) the mastery of conventional writing mechanics in addition to organisational devices in order to write effectively. This multifaceted aspect of writing requires from teachers and learners alike to build awareness about writing on a multidimensional scale: linguistic, cognitive, and pedagogical.

1.3. Writing as a Language Learning Skill

As one of the four language skills, writing has always been part of first and second or foreign language classroom practices for many centuries; nevertheless, the field of L2 writing is relatively new. In fact, recent tendencies view learning to write as interrelated with writing to learn. Writing is important in its own right as it enables learners to communicate through written discourse; it is also of paramount importance for learning, thinking and problem-solving. It is then essential to know about writing as a language learning skill whose role is not only composing, but also communicating and basically thinking.

1.3.1. Writing as Thinking

Littlewood (1998: 49) maintains that learners construct their knowledge of the second language through active learning processes according to a natural 'inbuilt syllabus'; he also makes allusion to the role of processes associated with behaviourism, such as imitation and memorization. However, and as Rivers **(**1986: 86) points out "in the early sixties, many psychologists were turning away from habit-formation studies to the areas of perception, thought processes, the encoding and expression of meaning, information processing, memory, and the acquisition of concepts and language by children." This shift of focus has had significant effects in the field of language teaching/learning. Vygotsky (1962, 1978), for example, focuses on language as a social and communicative activity; likewise, Kern (2000: 38) considers literacy to have three dimensions: linguistic, sociocultural, and cognitive/metacognitive. It is also often agreed that, as a literacy skill, writing is basically a thinking activity. The student writer manipulates 'linguistic' content that s/he shapes from and according to his/her 'sociocultural' environment, by following a number of 'cognitive/metacognitive' processes before arriving at a final written product. For all these reasons, it seems relevant to consider the relationship between writing and thinking and so investigate the place writing has in cognitive psychology in order to fathom the link between writing, thinking, problem-solving, and second language acquisition.

1.3.1.1. Writing in Cognitive Psychology

Cognitive psychology seeks to understand how the mind operates while engaging in various activities. Thanks to the brain, humans can proceed to generalizations, determine cause-effect relationships, draw conclusions, memorise facts, and most importantly learn a language. In this context, (Sinclair, 2010: 2) posits that "Language opens the way to abstraction and generalization, and permits each normal human to develop a rich network of concepts". She further admits that skilled writers display a strong sense of the audience; and that this sense permits them not only to have considerable content but also bridges the gap between speech and writing. Moreover, Blamires (2003: 1) advocates the idea that in order to write effectively, sound thinking must precede writing; in addition, thinking has to be directed in advance about what (or who) we are talking about. Blamires also notes that according to scheme theory, we represent our knowledge of things, events, and situations in abstract mental structures called schemata which help us to make sense of the world around us by allowing us to organize our perceptions into coherent wholes, and that the culture-specific nature of schemata can lead to difficulties when we read and write texts in a non-native language. Fulwiler (2002: 39), for his part, explains that

> Writing helps us figure things out in at least two ways. On the one hand it makes our thoughts visible, allowing us to expand, contract, modify, or discard them. Writing progresses as an act of discovery; no other thinking process helps us so completely develop a line of inquiry or a mode of thought

On the other hand, Galbraith (2009) examines models of the cognitive processes involved in writing, with an emphasis on the thinking behind the text and the impact of the cognitive overload, emphasizing the interaction between thinking and text production processes, as well as the constitutive role of text production in the development of the writer's thought. Writing is thus considered not simply as a matter of translating preconceived ideas into text, but also as involving creating content and shaping it according to the needs of the reader. In his attempt to explain

the interaction between high level thinking processes and the linguistic processes involved in text production, Galbraith (2009: 21) posits that

> Learning to write in a different language is not just a matter of developing more fluent linguistic skills. It is not a matter of taking thoughts in one language and trying to translate them into the words of another language. Writing is thinking, and it is the effects of L2 on the writer's thoughts as they try to write that need to be researched

Furthermore, Condon and Kelly-Riley (2004) believe that writing is not only one of the most important skills in the digital age, and that it is a tool of thinking in the sense that good writing and writing about what we have read is the best way to learn thinking. Therefore, they have developed assessment programs to investigate the relationship between college-level writing and critical thinking abilities by evaluating student learning along with critical thinking outcomes. Their findings have asserted the belief that writing and critical thinking are inextricably linked. In fact, they relied on prior early essays in the field of composition and rhetoric, such as that of Emig (1977: 122**)** who argues that

> Some of the most distinguished contemporary psychologists have at least implied such a role for writing as a heuristic … [They] have pointed out that higher cognitive functions, such as analysis and synthesis, seem to develop most fully only with the support system of verbal language — particularly it seems, of written language

Emig apparently shares this belief with Vygotsky and Bruner who all agree that higher cognitive functions, such as analysis and synthesis, seem to develop most fully only with the help of writing.

Moreover, Vygotsky (1962, 1978, qtd. in Langer and Applebee, 1986: 172) argues that in becoming literate, children learn the structures and processes inherent in socially meaningful literacy activities. During the process of learning to read and write, children develop as active learners through interaction. They initially receive guidance from an adult, but later internalize the socially-mediated approaches in their repertoire, and so enhance their own self-regulatory abilities. A view that is shared with Bruner who uses the term "scaffolding" to describe the tutorial assistance provided by the adult to the child when the tasks they are required to do are beyond their abilities. Both Vygotsky and Bruner consider language learning resulting when adults provide necessary guidance to younger learners in order for them to make sense of and fulfill the relegated assignments. They likewise see literacy as principally encouraging deduction and thinking that can support higher levels of cognitive improvement (Langer and Applebee, 2007). Bruner (qtd in Langer and Applebee, 1986) further views writing as strong necessary instrument for thinking, and that schooling helps the development of reasoning abilities through training in the mastery of the written language. Among Langer and Applebee (1987: 135-136) conclusions are the following:

1. Writing activities promote learning better than activities involving only studying or reading.
2. Different kinds of writing activities lead students to focus on different kinds of information.
3. In contrast to short-answer responses, which turn information into discrete small pieces, analytic writing promotes more complex and thoughtful inquiry but on a smaller amount of information.

In short, the joint efforts of these researchers and educationalists lead us to deduce, and to investigate as such the significance of writing as “the outcome of a set of complicated cognitive operations” (Hedge, 2000: 303), and so urge us to explore, the genuine link between writing, thinking, and problem-solving.

1.3.1.2. Writing as Problem-Solving

Writing requires problem solving of some kind. Writing is a complex and recursive process that combines many sub-skills which relate to the mastery of grammar, syntax, lexis, rhetoric, spelling, and text organisation. It also calls for an awareness of subject, purpose and audience. An effective writer would be confined to take many variables into consideration; these variables would not concern only form and content but also the selection of appropriate strategies that fit the learning situation and the writing purpose. Silva (1990:14) points out that "writing is basically a matter of arrangement, of fitting sentences and paragraphs into prescribed patterns. Learning to write then, involves becoming skilled in identifying, internalizing, and executing these patterns".

In fact, Brown (1994: 87-89) posits that problem solving, which is a kind of learning that requires "thinking", is clearly evident in second language learning since the learner is constantly faced with situations in which he has to provide solutions for encountered problems, while relying on previous information and knowledge in order to correctly understand or produce language. In addition, Kern (2000: 29) believes that writing also requires active thinking and problem solving and that both reading and writing can be seen as acts of meaning construction, in which individuals make connections between textual elements and existing knowledge structures to create new knowledge structures. But reading and writing would not be possible without acquiring an essential *shared cultural knowledge* of the society we want to function effectively in (Hirsch, 1987 qtd. in (kern, 2000: 31)). Furthermore, Tsui (qtd.in Freeman and Richards, 1996) explains further that what makes writing difficult is that it is an anxiety-generating activity for L2 students. The reason is that these learners are required to write fluently and accurately about (usually) imposed topics, in a limited period of time. This anxiety is worsened even more when the writing activity is to be graded. She describes then writing is as a 'high-risk, low-gain activity' since students write individually and undergo the risk of getting negative feedback from the teacher. Galbraith also makes allusion to cognitive overload emphasised by the early models of writing,

explaining that "…because writing involves a complex interaction between a wide range of different processes, it places extremely high demands on the limited capacity of working memory." (Galbraith, 2009: 8)

On the other hand, Tynyala, *et al*. (2001) make reference to the major changes that have occurred by the beginning of 1980s as writing researchers and educators, within a cognitivist approach on writing, have shifted focus from product to process and began to consider writing as a tool for thinking and domain-content learning. Tynjala *et al.* believe that with the cognitivist perspective, writing is no more perceived as a 'graphic-motor activity'; it is rather seen as requiring thinking and reflection *before*, *during*, and *after* the act of writing; these processes pose problems to students. Nevertheless, a pertinent illustrating model is the one suggested by Hayes and Flower (1980) since their model views writing as following three main recursive rather than linear processes: planning, translating plans into text and revising. According to this model, the writing process operates under two kinds of information: first, knowledge in long-term memory, which refers to content, discourse, and metacognitive knowledge. Second, representation of the task environment, which includes writers' motivation to write, topic and audience features, the text in progress that influences the writing plan, in addition to the available resources. According to this model, writing necessitates the possession of a set of sophisticated problem-solving strategies which would enable writers to construct a more elaborated representation of their goals and develop and modify this representation throughout the writing process by revising more extensively and by evaluating their written products according to the initially-set objectives.

Another model which emphasizes problem-solving processes in effective writing is the one proposed by Bereiter and Scardamalia (1987). These authors have made the distinction between the *knowledge telling* and *knowledge transforming* strategies of writing. While *Knowledge telling* is applied by rather novice writers who simply think about what they know about the subject and generate ideas appropriate to the topic, *knowledge transforming* is a method of composition that involves taking into account a number of goals and sub-goals which determine the active transformation of knowledge according to communicative objectives. In this

case, the writer attempts to solve two problems: generating ideas and adapting them to the writer's rhetorical goal, and audience needs during writing. As Galbraith (2009: 10) puts it, "The end result is that more expert writers' texts are tailored to the needs of the reader, and that in adapting their thought to their communicative goals, such writers also develop their understanding of what they are writing about".

It should be added that (Galbraith and Torrance, 1999) focus on text production rather than on problem-solving as an instance of higher thinking skills. Composing is in this manner considered generative in that writers may produce totally new ideas during writing, without any reflection or revision. They explain that spontaneous writing helps writers externalize their thoughts and overcome the writer's block, by making writing less controlled.

To conclude, writing is a problem-solving activity which pushes the writer to make use of his memory and knowledge about the topic, in order to achieve a given communicative purpose for an intended audience. Writing thus surpasses the mere graphic representation of speech to a cognitive representation of thought and knowledge and further to a metacognitive monitoring of a sophisticated process that brings together knowledge about the topic in conjunction with knowledge about the appropriate strategies that would enable writers to express themselves effectively in the written mode. Nevertheless, these appropriate strategies have to be designed within a second language acquisition framework.

1.3.1.3. Writing and Second/Foreign Language Acquisition

According to Carson (2001), the foci of Second Language Acquisition (SLA) theories and L2 writing theories are quite different**;** however, an understanding of SLA in general is essential to reach an understanding of L2 writing abilities because L2 competence basically underlies L2 writing ability, even if writing is a skill that is developed in rather formal instructional settings through educational practices.

To begin with, Harklau (2002) argues that writing (and reading) has long been neglected by applied linguists who tended to focus on the acquisition of communicative competence in SLA research without extending to writing; in other words, “the study of interlanguage pragmatic acts in second language acquisition has focused on the spoken medium and has paid little attention to writing” Ellis (1994:187-188). By so doing, reading and writing have been assigned a secondary role in the process of second language acquisition.

Therefore, in order to investigate the relationship between SLA and L2 teaching and learning, an area that can explored is error in writing since, as Shaughnessy (1977) explains, errors are windows on the acquisition process, and they provide information for teachers on the interlanguage stage of L2 writers. In addition, Carson (2001) highlights the fact that a writer’s first language plays a complex and an important role in SLA, observing that “transfer from the writer’s first language is an important cognitive factor in the interpretation of writing error and has been acknowledged from both a syntactic and a rhetoric perspective” (Carson, 2001:196). He further adds that attitudes and motivation have a significant role to play during the process of learning to write. He explains that learners may have an instrumental motivation and so are interested in developing the target language for particular purposes, such as writing a dissertation; they may also have an integrative motivation and want to become like target language speakers.

Moreover, while investigating second language acquisition in classroom settings, it is certainly important to examine how students learn how to write, but it is equally significant to consider how they learn a second language through writing, that is to regard reading and writing not just as a ‘target of’ but ‘as a means of’ instruction. This is an idea that is shared with many scholars, including Hyland (2000), who perceive reading and writing as powerful means of linguistic input, output, and interaction, even if these two skills do not involve face-to-face communication. In this context, Harklau explains that a distinguishing characteristic of print is the possibility for language learners to interact without the challenging pressure of face-to-face communication, allowing them to adjust the rhythm of their learning according to their own pace.

For the so-far mentioned relationships between SLA and L2 teaching, Carson (2001), among other writers, advocates the idea that issues related to teaching and learning writing in a second language must be considered from the perspective of SLA. Harklau (2002), for her part, believes that language progression could be best tracked through reading and writing than through speaking and listening; one of the reasons being that she observed in classroom settings learners produced more written than oral output that is amenable to study. Therefore, she affirms that reading and writing are not only relevant to classroom-based L2 research; but also that descriptions and theories of L2 acquisition in classroom settings are incomplete until they consider the role of writing and reading. Consequently, models of teaching and learning writing must be based on a perspective of acquisition, and this will inform much about the acquisition of the communicative competence that underlies writing ability.

1.3.2. Writing as Learning

Language and learning are interrelated and so are writing and learning. Writing plays the role of consolidating learning in other skills, is useful in testing, and can be a way to promote academic learning because of many reasons. Since the 1970s, writing researchers began to react against the traditional view of writing instruction that emphasizes mechanical correctness and the teaching of a rigid set of discourse forms. As a result, a view of writing as a means of learning and reflecting about subject matters has begun to be promoted through a 'Writing to learn' approach. Emig (1977), who started the Writing to learn movement, clarifies that writing serves learning uniquely because writing as process-and-product corresponds uniquely to certain powerful learning strategies, and because writing is neuro-physiologically integrative, connective, active, and available for immediate visual review. Besides, according to (Perpignan, *et al*., 2007), students of English for Academic Purposes (EAP) are traditionally considered to be engaged in learning as a 'mechanical skill', while they believe that there are also learning outcomes resulting from academic writing instruction. Writing can help students work

through confusing new ideas and applying what they learn to their own lives and interests. As has been posited by (Elbow, 1994; Harmer, 1998 and 2004; Kern, 2000), writing serves to:

- reinforce language use and enhance understanding and memory, mainly when the writing assignment is given shortly after a vocabulary or a grammar lesson;
- allow learners create and modify meaning through the manipulation of forms;
- maintain and even improve their writing skills through repeated practice;
- develop learners' ability to express thoughts and organise ideas in accordance with the reader's expectations;
- enhance learning strategies through individual, pair or group work;
- promote learning and involvement in course material;
- urge learners use dictionaries and grammar books as they focus on accuracy while writing;
- provide time to process meaning (unlike speaking), and so it is less anxiety-producing
- make learners think as they write; they develop their language and resolve problems which writing poses, and so learners learn better.

As a result, researchers began to perceive writing not just as output, but also as input that serves to improve learning. All these reasons have created the need for a more appropriate writing pedagogy.

1.4. Writing Pedagogy

Although many people experience similar writing problems and share some solutions, there are no universal recipes for successful writing because everyone is different (White, 1987). It is necessary to have an informed and contemporary writing and learning instruction knowledge which would be directed towards preparing EFL students to become "successful, confident, efficient, effective academic writers" Reid (2001). It follows that the principles of writing instruction have to be clarified; in addition, the different teaching and testing approaches related to the writing skill have to be examined. Moreover, the part technology plays in writing instruction has to be brought to light.

1.4.1. Writing Instruction Principles

Learning to write is not a natural process. It does not result from mere exposure to written language; it has to be systematically taught and practised (Rivers, 1968). Besides, there is growing acknowledgment that in addition to knowing components of finished texts (regarding adjustment to genre conventions, spelling and sentence structure), students need to know how to deal with the procedures by which these writings are delivered, and be mindful of the functions that written work performs in connection to language learning (Fidalgo *et al*., 2008). Thus, it is important to acknowledge different teaching approaches in the field of writing to produce efficient and effective writers.

To begin with, some insights about features of academic writing can be derived on the basis of research results of the following authors: Langer and Applebee (1987), Ur (1991), Cotteral and Cohen (2003), Harmer (2001), Leki *et al.* (2010), and Brookes and Grundy (1990):

- There are three recursive stages in teaching writing in the classroom: prewriting, writing, and post-writing.
- Academic writing is characterized by meaningfulness, organization, and a command of standard written English, including grammar and vocabulary.
- Learners should analyse audience and determine purpose
- Learners learn to write through writing.

- Learners need regular feedback from peers and tutors, and need to write collaboratively

It follows that the teacher has to devise a teaching programme that appeals to students' needs and objectives. Moreover, Brown and Hood (1989), Brookes and Grundy (1990), Harris (1993), and Grenville (2001), maintain that in order for writing to be effective, three variables are particularly to be taken into consideration by the writer: purpose, content and audience. These three parameters are summed up by Arndt (qtd.in Wallace, 1998: 92) who states that "Such techniques are responsible for matching content with form … under the control of purpose whereby an intended meaning is successfully conveyed to an intended reader".

Purpose refers to the communicative function of a text. In college, the general purpose is usually specified by the assignment: to explain, report, analyze, argue, interpret, reflect, inform, instruct, entertain, persuade, explain, and so on. Different purposes entail different kinds of writing (essays, book reports, lab reports, term papers, poems, drama, or diary writing) and so the writer has to select from a range of alternative of grammatical and lexical choices those which best suit their intended purpose. Keeping the purpose in mind will help learners know what they write and why they write.

Content refers to form and meaning of the language used. Broadly synonymous with 'text type', such as letters, recipes, sets of instructions, lists, labels, reports, poems, essays, stories, plays, personal writing, and so on. Content also refers to the text type dealt with, formal or informal. While designing content, the writer has to keep in mind purpose and audience, and remember that one single form may have different purposes.

Audience: To develop a sense of readership has become one of the most important elements in effective writing. Thus, in order to provide more flexibility and a greater reality to the writing curriculum, there may be various audiences: self, the teacher or the exam corrector, the peer group, or a virtual audience. Factors that need to be taken into account are the degree of formality or informality of the relationship between reader and writer, the degree of prior knowledge and

understanding, and the amount of the shared cultural background between the writer and the reader. The writer's awareness of each of these factors will influence a whole range of decisions that have to be made when writing. However, Scardamalia and Bereiter (1991) note that developing a sense of readership requires both higher-order cognitive strategies and substantially more writer effort. Moreover, it is noteworthy that writing is not a skill that can be picked up by exposure; it needs to be taught through formal instruction.

1.4.2. Approaches to Teaching Writing

According to (Matsuda et al., 2003), research on L2 writing has grown significantly over the last 40 years and that, during the late 1980s and the early 1990s, second language writing began to evolve into an interdisciplinary field of inquiry on its own right. Writing has witnessed different foci: It was highly considered in the Grammar Translation Method as an invaluable learning tool and a requirement for the translation of literary texts; besides, accuracy was valued over fluency. Writing was however marginalized with the Audiolingual method (from 1950s to the early 1960s) which put focus on oral proficiency while written proficiency was delayed to later stages. From the 1970s to the early 1980s, the ESL writing research paradigm focused primarily on the writing process rather than on written product and emphasized fluency rather than accuracy, mainly within the Communicative Language Teaching (CLT) approach in which language is no more considered in terms of structures –grammar and vocabulary-, but in terms of the communicative functions it performs. Therefore, more attention was paid to language use rather than to language usage. Since the 1990s, methodology for the teaching of writing has changed mainly after the emergence of second language writing as an interdisciplinary field comprised of numerous dimensions rather than a single aspect. Fujeda (2006) clarifies that after 2000, the L2 writing context has witnessed a post-process inquiry when researchers began to realize that social, cultural, and educational aspects have a critical impact on second language writing investigations. Consequently, there has been no agreement over one theory or pedagogical approach that applies to and validates L2 writing scholarship. Yet, one

might identify three principal ways of approaching the teaching writing: focus on form, focus on the writer, and focus on the reader (Raimes, 1983; Tribble, 1996; and Hyland, 2003).

1.4.2.1. Writing as Product

Teaching writing as product focuses on accuracy, i.e., on textual form and on the well-formedness of students' writing. It emphasizes less the cognitive and social dimensions of writing (kern, 2000). According to Badger and White (2000) and Hyland (2003), learning to write in a second or a foreign language mainly involves lexical and structural knowledge, and is based on imitating and manipulating models provided by the teacher. The product approach to teaching writing involves a four-stage process (Hyland, 2003:3-4):

Familiarization: learners are taught certain grammar and vocabulary, usually through a text.

Controlled writing: learners manipulate fixed patterns, often from substitution tables

Guided writing: learners imitate model texts.

Free writing: learners use the patterns they have developed to write an essay, letter, and so forth.

Accordingly, the writing lesson consists of controlled and guided activities to raise awareness of how texts are structured until learners produce the written product. Accuracy and clear exposition are considered the main criteria of good writing, while the actual communicative content, the meaning, is left to a later stage. While teaching writing as product, learners would pay much more attention to errors, but would lack originality in self-expression. Nevertheless, language structure mastery does not necessarily entail proficiency in writing, and it is necessary for learners to know to apply this structural and lexical knowledge for particular purposes and contexts (Hedge, 2000). As a reaction to the limitations of the product approach, there has been a shift towards the process approach.

1.4.2.2. Writing as Process

Teaching writing as process emphasizes the writer rather than the text. It recognizes the basic cognitive processes as central to writing activity and in stressing the need to develop students' abilities to plan, define a rhetorical problem, and propose and evaluate solutions (Hyland, 2003). More importance is thus given to linguistic skills, such as planning and drafting, than on linguistic knowledge, such as knowledge about grammar and text structure. Writing is seen as a process of thinking, creating and discovering meaning, exploring new thoughts and ideas (Hedge, 2000; kern, 2000; and Tsui, 1996). Many teachers and educationalists agree that the process of writing is not linear but recursive and complex (Badger and White, 2000; Hedge, 2000; Hyland 2003; Kane, 1988; and Tribble 1996). The writer can at any point in the preparation of a text go forwards or backwards to make necessary changes in order to reach their intended audience. A typical model of the process approach identifies four stages (Tribble, 1996; Richards and Lockhart, 1996; Harris, 1993):

Pre-writing: It is designed to generate ideas for writing or focus the writers' attention to think on a particular topic, and explore ways of developing it. Possible techniques may include listing questions, brainstorming, diagrams, or planning grids.

Drafting/Composing: It consists in translating plans and ideas into a provisional text. Drafting allows writers the flexibility to explore, to make discoveries, perceive a different way of arranging ideas, and or even change their ideas.

Revising: It consists in rereading, analyzing, and reconsidering the written draft, by making considerable changes, such as deleting or replacing words or sentences or shifting paragraphs.

Editing: It involves the careful checking of the text to ensure that there are no errors that will impede communication, such as errors of spelling, punctuation, word choice, and word order.

With the process approach, the teacher spends more time with learners in the different phases of the writing activity. There is a lot of interaction between teachers and learners, and between learners themselves in the form of collaborative brainstorming or freewriting, and peer-group editing. The end-result is that students unconsciously develop writing, rather than learn it (Badger and White, 2000; Hedge, 2000). However, the process approach has been criticized for a number of reasons: First, it is time consuming, and this constitutes a major disadvantage (Harmer, 2001). In addition, learners are free to express their ideas without worrying much about making errors, but they write carelessly, and this might promote bad writing. Moreover, it can also pose problems for evaluation; when instruction is process-oriented and yet evaluation is product-oriented, students can be confused about what is most important (Kern, 2000). On the other hand, (Badger and White (2000), Bereiter and Scardamalia (1987), and Kern (2000)) believe the process approach ignores the influence of sociocultural context, and fails to explain how students actually proceed with their writing, or whether this process is the same for all learners. Therefore, it is necessary to acknowledge the fact that "students not only need help in learning how to write, but also in understanding how texts are shaped by topic, audience, purpose, and cultural norms, (Hyland, 2003: 14).

1.4.2.3. Writing as Genre

In the early 1990s, writing researchers began to perceive new purposes for writing instruction such as EAP (English for Academic Purposes) and ESP (English for Specific Purposes) to value the audience in writing rather than the writer. This interest has led to the emergence of genre-based approach to teach writing; that is to teach writing for a particular purpose. According to (Hyland (2003, 2007) and Kern (2000)), genre approach focuses on the communicative function of texts in specific social contexts. It describes types of activities such as songs, poems, prayers, seminars, lectures, recipes, advertisements, application letters, novels, short stories,

argumentative essays, reports, and summaries. According to this approach, learners gradually study texts in the genre they are going to write in, before they begin to write; while the teacher (drawing on the Vygotskyian scaffolding principle) provides students with an explicit grammar of linguistic choices to produce texts that seem well-formed and appropriate to readers. Harmer (2001: 258) sums up the requirements for students to write within a genre: "They need to have knowledge of the topic, the conventions and style of the genre, and the context in which their writing will be read, and by whom". In fact, Hyland (2004: 10-16) perceives a number of advantages of the genre pedagogy as being:

- Explicit: Makes clear what is to be learnt to facilitate the acquisition of writing skills
- Systematic: Provides a coherent framework for focusing on both language and contexts
- Needs-based: Ensures that course objectives and content are derived from students' needs
- Supportive: Gives teachers a central role in scaffolding students' learning and creativity
- Empowering: Provides access to the patterns and possibilities of variation in valued texts
- Critical: Provides the resources for students to understand and challenge valued discourses
- Consciousness-raising: Increases teachers' awareness of texts to confidently advise students on writing

Genre pedagogy is criticized to be too prescriptive and static, limiting as thus the originality of student writers; nevertheless, recent work in sociolinguistic, rhetoric, and communication has contributed to an even broader view, in which genres are seen as dynamic enabling learners to make choices and express themselves more easily (Harmer, 2001; Hyland, 2007; and Kern, 2000).

1.4.2.4. An Integrated Approach: The Compromise

Badger and White (2000) believe the three approaches are largely complementary, having each a number of advantages and disadvantages (see Badger and White, 2000: 156- 157). They maintain that an effective methodology of writing needs to incorporate insights from product, process and genre approaches; a point of view strongly shared by Kern (2000), Raimes (1985), and Reid (2001), among others. The essential idea is that writing involves knowledge about language (as in product and genre approaches), knowledge of the context in which writing happens and especially the purpose for the writing (as in genre approach), and skills in using language (as in process approach). Consequently, many writing teachers prefer to deal with the different approaches in a parallel and complementary fashion rather than a mutually exclusive manner (Hyland, 2003). Therefore, they suggest an integrated and eclectic approach to teach writing, announcing as such a 'post-process era' (Fujieda, 2006).

On the other hand, there has been a shift of focus towards valuing learners' writing strategies and thus growing call for Strategy Based Instruction in second language learning classrooms has emerged in order to provide learners with the tools to develop problem-solving skills, monitor and self-evaluate their performance in language learning, and develop learner autonomy. Similarly, Strategy Based Instruction is believed to help improve the writing abilities of students in an EFL setting. According to (Chamot *et al.*, 1999; George McMullena, 2009; Fidalgo *et al.*, 2008), strategy-based writing instruction help students improve their writing abilities: they produce more elaborated and more organized paragraphs, produce better quality and more reader-focused writing, and are more likely to show an awareness of the importance of text structure (see more information under 1.6.3.1). Moreover, there is an ever-growing attention and importance accorded to the role technology has and will have in language learning, more particularly in writing instruction.

1.4.3. Computer- Assisted Writing

The 21st century has asserted the links between technology and TEFL, mainly at university level. Furthermore, the rise of the Internet, and particularly computer-assisted communication, has given arguments for the uses of computers for language learning. As a result, Computer-Assisted Instruction, through interactive computer programmes, is believed to allow students to progress at their own pace as they receive immediate feedback, and work individually or problem solve in a group. Many researchers, such as Sullivan and Pratt (1999) and Corbel and Gruba (2004), advocate the necessity of technology to develop literacy, and support the positive effects for the use of networked computers in writing classrooms. Thus, Computer-Assisted Writing (CAW) is seen as a solution to help students improve their proficiency. In addition, a web-based writing instruction, through the adherence to writing laboratories is believed to help students lessen their anxiety and enhance their motivation as well as increase their written output both quantitatively and qualitatively. Moreover, computer-mediated communication encourages collaborative writing and increases confidence and responsibility on the part of the second language learners which promotes their autonomy (Li, 2000).

Technology in language teaching can be traced back to many decades ago. Technology-enhanced language learning appeared in the 1990s in response to the growing possibilities offered by the Internet and communications technology. Dudeney and Hockly (2007: 7-8) assert the ever-growing place of technology in the ELT classroom for the following reasons:

- Internet access in private homes, or at Internet cafés is becoming increasingly available to learners;
- Technology is a natural and integrated part of younger learners. It is a way to bring the outside world into the classroom
- English as an international language is being used in technologically mediated contexts

- The Internet offers excellent opportunities of collaboration and communication between learners who are geographically dispersed
- Using a range of ICT tools can give learners exposure to and practice in all of the four language skills- speaking, listening, writing and reading
- The web is a readily available collection of authentic material.

It is also widely required for learners to use the computer as a device to learn writing, because of the availability of a grammar corrector or a spell-checker which offer instant corrections for pupils. Moreover, it works well with large classes and serves global communication. Schwartz *et al*. (2007) maintain that writing on a computer has many benefits: students save hours of time; they write longer texts and do more intellectual work. In addition, it is argued that word processing activities will put the emphasis on the process of writing rather than on the final written products, for example, brainstorming, note-taking and revising, all of which makes for a more creative use of language. For their part, Miyazoea and Anderson (2010) revealed students' positive perceptions of the blended course design with online writing**.** Moreover, Turgut (2009) observed that students not only improved their writing skills, but also their critical feedback, confidence and motivation.

Most importantly, Oguz Akturk and Sahin (2010) advocate positive correlations between educational internet use and metacognitive learning strategies. Aleven and Koedinger (2002) equally maintain that by engaging in explanation, students acquire better-integrated visual and verbal declarative knowledge and acquire less shallow procedural knowledge. Moreover, Mevarech *et al.* (2007) claim that online interaction encourages respondents to work in a linear fashion, link comments to earlier statements, and bring in "outside" knowledge. Both the act of communicating and the act of creating a discussion record, they maintain, can serve as a catalyst for metacognitive awareness.

Finally, it is important to note that the recent shift to technology-based language learning has changed the role of the teacher from the only source of information to that of facilitator so that students become explorers, creators and active participants in learning rather than passive recipients of it. As such, computer-assisted writing instruction combines information processing, communication, use of authentic language, and learner autonomy, all of which are of major importance in current language learning theories. Nevertheless, Hedge (2000) and kern 2000 remind that for word processing to be effective, learners and teachers need training in the mechanics of word processing together with a positive attitude.

1.4.4. Assessing Writing

Assessing learners' writing and providing them with feedback is part of the learning process. With the advent of the Communicative Language Teaching, error is seen as an inevitable and positive aspect in the teaching/learning process, and no more as something to avoid at all expense (Hedge, 2000). In addition, there seems to be an agreement that errors should be corrected, or else students will carry on using and even internalizing erroneous forms (Tsui, 1995), but how to assess writing? how to correct writing errors? and who should provide the feedback?

Hamp-Lyons and Heasley (1987) make a distinction between formative and summative feedback on written work. Formative feedback aims at helping learning proceed; different correction techniques can be used to help learners either find their errors, or correct them or both find and correct them. The teacher may also use a correction key or code (underlining mistakes and putting symbols in the margin), in addition to making comments at different stages of the writing process. It is also important to talk with students about their mistakes. Summative feedback, more known as ‘assessment’, ‘grading’, ‘marking’, or even ‘testing’, aims at informing the teacher, and the learner, how far the learner has progressed towards control over the written language. The judgment the teacher makes usually appears in the form of numbers, or grades.

Very often, errors are corrected at the level of the end-product, and the response is made at the language mastery level rather than at the composing level. This is due to the fact that form mistakes are easily diagnosed and corrected than those of content and organization; moreover, students also want their language mistakes to be corrected Ur (1991), but this practice limits learners' concentration on the writing process. Therefore, many educationalists like Rivers (1968), White (1988) and Harmer (2004) suggest that while correcting and grading written work, the teacher has to strike a balance between accuracy and fluency, in a manner not to emphasize one over the other; in addition to correcting one aspect each time: spelling, grammar, punctuation or ideas organisation so that students concentrate on individual aspects. It is equally significant to have learners know in advance the criteria being used for assessing their written products. The objective is to make learners aware of their mistakes and of possible ways of correcting them.

Most importantly, the teacher has to respond positively to learners' efforts at writing through useful comments and remarks. Too much correction demotivates learners and prevents them from risk-taking in future writing assignments (Harmer; 1998; Tsui 1995; Wajnryb, 1992). Therefore, the teacher should never treat learners' writings as 'final products', but rather help them redraft their written work. Otherwise, correction is worthless as learners' errors and misconceptions become fixed in learners' minds and are difficult to change in later stages (Rivers, 1968). White (1987) suggests a writing evaluation scheme in which a piece of writing is given marks in each category, so that they provide a more detailed form of feedback to learners than a simple mark or grade.

Table1.1. **A possible correction grid** (White, 1987: ix)

Categories	**Mark allocation out of 100%**		
Content	13	to	30
Organisation	7	to	20
Vocabulary	7	to	20
Language use	5	to	25
Mechanics	2	to	5

On the other hand, while the teacher usually corrects the mistakes, it is also important to make learners correct their own errors individually or in pairs. In this context, Ur (1991) posits that peer-correction can be a time-saving and is a valuable exercise in itself. Likewise, Brookes and Grundy believe that teachers should maximize possibilities for self-discovery and self-correction, arguing that in writing "self-correction is preferable to peer-correction and peer correction to teacher correction" (Brookes and Grundy, 1990: 54). However, students need some training and guidance at self and peer reviewing.

Teaching and learning writing are highly demanding tasks that require lots of efforts and commitment on the part of both teachers and students. The complexity of writing has pushed methodologists to examine different aspects in the learning/teaching domain, one of these being to provide training in learning and writing strategies, so as to give students a more important and accommodated role in the learning process.

1.5. Training in Learning and Writing Strategies

The shift from teacher-centred to learner-centred education has brought in the need to focus more on what learners do in order to learn, and what makes them succeed or even fail on a given learning task. Therefore, many educationalists (Rubin, 1987; O'Malley and Chamot, 1990; Oxford, 1990) have paid attention to learners' strategies for learning, and more particularly, for foreign language learning. Besides, the findings in the field of language learning strategies have constantly maintained that the use of language learning strategies leads to better proficiency in the target language (Lee, 2010; O'Malley and Chamot, 1990; Rahimi *et at*., 2008; Griffith, 2003). Similarly, Oxford (1990: 9) posits that language learning strategies expand the role of teacher and help learners become self-directed, more self-confident, and more proficient in the target language. In addition, researchers agree that language learning strategies can be taught and learned: Wenden (1991), Cook (2001), and Griffith (2003) maintain that it is up to the teacher to make learners aware of effective language learning strategies. As a result, there has been a call for a learning strategies instruction since there are

significant relationships between language learning strategies and language proficiency. It seems relevant, then, to have an idea about what language learning strategies are in order to gain an insight into writing strategies, and know how to make students more active and autonomous learners.

1.5.1. Learning Strategies Defined and Classified

According to Rubin (1975: 43), learning strategies are "the techniques or devices which a learner may use to acquire knowledge". Later, Tarone (1977: 67) suggests that learning strategies are "an attempt to develop linguistic and sociolinguistic competence in the target language". O'Malley *et al*. (1985: 23), for their part, posit that learning strategies are "operations or steps used by a learner that will facilitate the acquisition, storage, retrieval or use of information". Oxford (1990: 8), on the other hand, defines language learning strategies as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations". She further expands the definition to ".. specific actions, behaviours, steps, or techniques that students (often intentionally) use to improve their progress in developing L2 skills. These strategies can facilitate the internalization, storage, retrieval, or use of the new language. Strategies are tools for the self-directed involvement necessary for developing communicative ability", (Oxford, 1993: 18). Subsequently, Cook (2001: 126) sees learning strategy as "a choice that that the learner makes while learning or using the second language that affects learning."

One may notice that over time, along with the shift from product-oriented to process-oriented definitions of learning strategies (Oxford, 1990), learners are given a more active role, from mere receivers of knowledge as in the first suggested definition ('knowledge acquisition'), to more and more active role and greater involvement in the learning process in the later definitions ('choice learners make'). One may conclude that learning strategies are steps taken by students to assist their own learning; these steps may be either thoughts or actions. Strategies are ways to understand, remember, and recall information; they concern

L2 skills _among them writing, and aim for developing linguistic and sociolinguistic competence in the target language. Basically, the learners use strategies for language understanding, production, or communication. The learners make use of prior knowledge in order to understand present situations but also transfer knowledge to new situations. The use of appropriate strategies would, as such, make of second or foreign language learning more successful, and would make learners more responsible and autonomous. In fact, different researchers, among them Wenden, (1983), Rubin (1987), Oxford (1990), and O'Malley and Chamot (1990) have contributed with their own classifications of language learning strategies**.**

Wenden (1983), for example, provides a distributuion which focused on learners' self-regulation of their learning. She identifies the following three general categories of self-directing strategies: *Knowing about language* and relating to what language and language learning involves, *Planning* relating to the 'what' and 'how' of language learning, and *Self-evaluation* relating to progress in learning and to learner's reactions to the learning experience. It is important to note that Wenden's focus on metacognitive strategies is apparent in the provided classification; in addition, Wenden's framework is considered as a basis for the later EFL learner's training (Liu, 2010).

Rubin (1987) also makes a distinction between Direct strategies which include metacognitive and cognitive strategies and Indirect strategies which include communicative and social strategies. According to Rubin, there are three types of strategies used by learners that influence directly or indirectly to language learning: ***Learning Strategies:*** They are categorized into cognitive strategies involving clarification/verification, guessing/inductive inferencing, deductive reasoning, practice, memorization and monitoring; and metacognitive strategies involving planning, prioritizing, setting goals, and self-management. ***Communication (or interactive) Strategies****:* They focus on the process of participating in a conversation and enabling the speaker to be understood or to clarify his original intention. ***Social Strategies****:* They are activities providing learners with opportunities of exposition to

and practice of their knowledge. These activities include questions to mates/teachers or to native speakers, initiating conversations, listening to L2 media, and so on.

Oxford (1990: 17), for her part, provides a taxonomy of language learning strategies made up of two major categories: Direct and Indirect strategies. These are in turn classified into further sub-categories as follows:

Direct Strategies	Indirect Strategies
1- Memory strategies: A- Creating mental linkages B- Applying images and sounds C- Reviewing well	**1-Metacognitive strategies:** A- Centering your learning B- Arranging and planning your learning C- Evaluating your learning
2- Cognitive strategies: A- Practicing B- Receing and sending messages C- Analysing and reasoning D- Creating structure for input and output	2-**Affective strategies:** A- Lowering your anxiety B- Encouraging yourself C- Taking your emotional temperature
3- Compensation strategies: A- Guessing intelligently B- Overcoming limitations in speaking and writing	3-**Social strategies:** A- Asking questions B- Cooperating with others C- Empathizing with others

In addition, O'Malley and Chamot (1990) *classify learning strategies into metacognitive, cognitive, and social/affective.* ***Metacognitive strategies*** are 'higher order' skills used for planning, setting goals, supervising and self-management. In addition, metacognitive knowledge involves understanding one's own learning processes, the nature of the learning task, and the strategies that should be effective. Some of these strategies are directed for selective attention, self-regulation and self-evaluation. ***Cognitive strategies*** refer to the steps or operations used in learning or problem-solving that requires direct analysis, transformation, or synthesis of learning materials. They involve manipulating information in ways that enhance learning through rehearsal, organization, or

elaboration, and may include repetition, resourcing (using dictionaries or other materials), translation (use of the mother tongue), note-taking, deduction, transfer or inferencing. Compensation strategies enable learners to make up for knowledge gaps. ***Social/Affective strategies*** involve either interaction which other people or control over affect. Socioaffective strategies have close relationship with social-mediating activity and interacting with others. With social strategies, learners are exposed to the opportunities that help them practise their knowledge. Communication Strategies concern the process of participating in a conversation and getting meaning across or clarifying a misunderstanding with an interlocutor.

Despite disagreement and overlap between the learning strategies classifications, three aspects of language use emerge: reception, production and communication. Language learning strategies, then, enhance language learning both directly and indirectly, and go beyond the purely cognitive processes to include social, affective and interactional dimensions. It is also noteworthy to remind that many of the initial studies on language learning strategies were aimed at defining the characteristics of good and poor language learners.

1.5.2. ‘Good’ Learners’ Strategies

Different learners have different types of styles and strategies for successful learning, and it is agreed that good learners use a larger range of strategies in language learning more frequently and appropriately (O'Malley *et al*. (1985), Vann and Abraham (1990), and Green and Oxford (1995)), and that advanced language learners employ learning strategies more frequently than elementary students. In addition, many researchers have provided lists of what they considered ‘good’ learners’ strategies, on the basis of their longitudinal studies with EFL or ESL learners. Most importantly, according to (Brown, 1994: 114-115) and (Cook, 2001:127-128), good language learners are reported to

- find a learning style that suits them best by adapting or modifying the strategies they encounter,
- take in charge their own learning.

- participate actively in the language learning process, inside and outside the classroom.
- develop an awareness of language both as a system and as communication.
- use linguistic knowledge, including knowledge of their first language, in learning a second language.
- use contextual cues to help them in comprehension
- learn to make intelligent guesses.
- learn certain production strategies to fill in gaps in their own competence.
- learn different styles of speech and writing and learn to vary their language according to the formality of the situation.

In short, according to the work of Rubin (1975) and Wenden and Rubin (1987), the main language learning strategies observed in successful language learners are responsibility, autonomy, organization, self-awareness, self-evaluation, creativity, guessing, tolerance to mistakes, in addition to the practical, varied, and communicative language use. Additionally, other authors have shown that an individual's learning style preferences influence the type of learning strategies that they use (Rahimi *et al*., 2008; Ehrman and Oxford, 1989). For instance, extroverts have demonstrated strong preference for social strategies, while introverts use metacognitive strategies more frequently (Ehrman and Oxford, 1989). Learners who favour group study are shown to use social and interactive strategies, such as working with peers or requesting clarification (Rossi-Le, 1995). For all these reasons, most researchers advocate the necessity of incorporating learning strategies instruction in the language classroom for better learning achievement in all language tasks and skills, among them writing.

1.5.3. Writing Strategies

Writing researchers have asserted that among the factors affecting the process and product of ESL writing are language proficiency, L1 writing competence, use of cohesive devices, metacognitive knowledge about the writing task, writing strategies and writers' personal characteristics, and that among these factors, writing strategies seem particularly remarkable (Arndt, 1987; Raimes, 1985; Zamel, 1982). This is because writing strategies particularly separate successful from less successful writers. Furthermore, according to Hsiao and Oxford (2002: 372), strategies can "pave the way toward greater proficiency, learner autonomy, and self-regulation". Therefore, it is necessary to explore explicit classification of ESL writing strategies, though there seems to be no agreement between writing researchers over the real number of writing strategies, their labels or how they should be classified (Mu, 2005: 2)

The influence of the process theory on ESL writing is quite considerable as Grabe and Kaplan (1996: 84) state, "Much current research on writing in a L2 is based directly on theoretical and instructional trends in writing-as-a-process theory." As a result, most researchers have suggested strategies that can be roughly grouped into three main categories: prewriting, writing and rewriting, which represent the stages of the writing process. Under each major category, sub-categories with different appellations and different foci could be further classified:

Prewriting: This stage may include different strategies that all aim at preparing the ground for the composing activity. Such strategies consist mainly in planning, hypothising, finding a focus, deciding how to organize a text, and stating goals and objectives. It is noteworthy that planning is considered as a key metacognitive strategy for second language acquisition since it is believed to direct the course of language reception and production (O'Malley and Chamot, 1990: 47).

Writing: This stage mainly concerns composing or drafting. It may include strategies such as monitoring, rereading, thinking in one's native langue, generating ideas, summarizing, repeating key words, questioning, consulting the dictionary, or paraphrasing. In this phase, the writer tries to convert thoughts and ideas into language. The writer forms a representation of the goals developed in the organization stage in the form of sentences and sentence fragments. While executing the written product, the writer may pause and return to the previous stages to make changes or make new plans as the writing progresses.

Rewriting: This stage may include revising, editing. There is a process of evaluation since the writer reconsiders the written text, previous goals, planned thoughts, and also changes undertaken to the text. Revision consists in introducing changes, adding, or deleting previously written segments; it concerns elements of coherence and cohesion. Editing ensures corrections at lexical level, such as accuracy in grammar, word-choice, spelling, and punctuation.

As a matter of fact, Mu (2005) has made the synthesis of classifications provided by Ardnt (1987) , Raimes (1985), Riazi (1997), Sasaki (2000), Victori (1995), and Wenden (1991), and enumerated EFL writing strategies most of which are used to categorize the writers' writing process. Mu classified these strategies into categories of rhetorical strategies, metacognitive strategies, cognitive strategies, communicative strategies and social/affective strategies. Mu (2005: 10) suggested the following taxonomy on the basis of the main theories related to ESL writing: contrastive rhetoric, cognitive development, communication and social constructionism and their applications in ESL writing studies.

Writing strategies	Sub-strategies	Speculation
Rhetorical strategies	Organisation	Beginning/development/ending
	Use of L1	Translate generated idea into ESL
	Formatting/Modelling	Genre consideration
	Comparing	Different rhetorical conventions
Metacognitive strategies	Planning	Finding focus
	Monitoring	Checking and identifying problems
	Evaluating	Reconsidering written text, goals
Cognitive strategies	Generating ideas	Repeating, lead-in, inferencing, etc.
	Revising	Making changes in plan, written text
	Elaborating	Extending the contents of writing
	Clarification	Disposing of confusions
	Retrieval	Getting information from memory
	Rehearsing	Trying out ideas or language
	Summarising	Synthesising what has read
Communicative strategies	Avoidance	Avoiding some problems
	Reduction	Giving up some difficulties
	Sense of readers	Anticipating readers' response
Social/affective strategies	Resourcing	Referring to libraries, dictionaries
	Getting feedback	Getting support from professor/peers
	Assigning goals	Dissolve the load of the task
	Rest/deferral	Reducing anxiety

Furthermore, in her doctoral research about writing strategies Algerian students used in the three languages (Arabic, French, and English), Hamzaoui (2006) notes that there is a correlation between students' use of learning strategies and their writing achievement, and that while writing essays in either language, the learners transferred the skills and strategies from Arabic to French and English; principally making use of the following strategies (p.255):

Metacognitive strategies	Cognitive strategies	Affective strategies
Topic reading Key words Brainstorming Oral construction Topic consultation Plan consultation Revision Time-saving Self-monitoring Selective attention Self-management	Writing in two languages Approximation Circumlocution Language switch Translation Transfer Generating sentences in Arabic/ French Re-reading Substitution Resourcing Rule application	False starts Avoidance Risk taking

Hamzaoui underlines as such the necessity of a strategy-based instruction in the writing classroom in order to level up students' EFL writing proficiency. Victori (1999) further maintains, as many researchers (Perl, 1978; Pianko, 1979; Flower and Hayes, 1980 and 1981; Raimes, 1985) do, that it is the strategies and general writing processes that primarily separate successful from less successful writers. Therefore, there has been an interest in exploring and classifying the strategies commonly used by skilled and less skilled student writers.

1.5.4. Skilled vs. Unskilled Writers' Writing Strategies

In their quest for the most successful writing strategies, different authors have opposed skilled and unskilled learners' writing strategies and processes in different respects. Bereiter and Scardamalia (1987), for example, criticized the assumption that there is a single writing process for skilled and less skilled writers. They rather propose two models of writing: knowledge telling model for novice writers and knowledge transformation model for expert writers. The knowledge-telling model is a task execution model and does not involve any complex problem-solving activities. In contrast, the knowledge transforming model is a problem-solving model that requires the writers to engage in constant reflective processes.

Other researchers (Arndt, 1987; Harris, 1993; Hedge, 2000; Kasper, 1997; Raimes, 1985; Sasaki, 2000; Sinclair, 2010; Victori, 1999; Zamel,1983) have contributed with their findings to draw the profile of good and poor writers; their assumptions can be roughly summarized as follows:

Good writers' strategies	**Poor writers' strategies**
- spend a longer time planning a detailed overall organization - return to planning again and again during composing -do not stop and think as frequently as the novices -write longer texts with more complex development at greater speed than the novices. -re-read their work, assess it, and react to it in a recursive way to ensure the overall coherence of the text. -consider purpose and audience -consult their own background knowledge -revise throughout the process and introduce considerable changes to the content, organisation and wording of their texts -begin editing after writing down their ideas, at the end of the process. -use strategies such as leaving a blank or writing down a word in their first language in order not to be distracted as they developed ideas	-spend a shorter time, making a less global plan - stick to a rigid plan, even if not helpful, and do not revise their plans -frequently stop and plan what they are going to write. - see composing mainly as a grammatically driven juxtaposition of sentences rather than the construction of a whole discourse -seem to focus on re-reading only smaller chunks rather than whole paragraphs -spend time changing the words and phrases -rarely review or scan back even when a draft is finished. -revise occasionally and only for the purpose of solving problems at a very superficial level - tend to make few alterations beyond correcting spelling and punctuation -continuously interrupt their composition process by editing concerns almost from the start

It can be understood that EFL writing instruction requires training in the use of strategies that would allow writers to regulate their writing more efficiently. Moreover, it is necessary to take into account the following requirements (Bereiter and Scardamalia, 1987 and Atkinson, 2003):

- insisting on the recursive nature of the writing process
- acknowledging learners individual writing strategies
- students should be aware of the different concerns and types of knowledge they need to draw on when writing
- setting up a writing methodology that values content, purpose and audience
- remedying language deficiencies to ensure a better writing production
- devising an appropriate response to learners' written products
- acknowledge the necessity to develop learners' metacognitive and cognitive knowledge of their own writing processes strategies

For all these reasons, it is significant to consider the importance of strategy based instruction and its role in promoting writing competency, before examining instances of language and writing strategies instruction. For such a purpose, an important strategy-based language learning approach is described and clarified in what follows.

1.5.5. Cognitive Academic Language Learning Approach (CALLA)

Educational researchers have long sought ways to train learners in using effective strategies for learning, through classroom instruction that links theory to practice. For these reasons, Chamot *et al.* (1999) advocate an approach based on cognitive-social theory which integrates academic language development, content area instruction, and learning strategies instruction to facilitate the acquisition of both content and language; they refer to as cognitive academic language learning approach (CALLA) (O'Malley and Chamot (1990), and Chamot *et al*. (1999). CALLA is based on the principle that "language is a complex cognitive skill, developing through a series of stages, which requires extensive practice and feedback in order to operate at an autonomous level". The main characteristic of

CALLA is the incorporation of learning strategies, academic language development and cooperative learning. It involves higher levels of thinking, and not just memory. This approach aims principally at helping students become more effective and independent learners. CALLA is claimed by its advocators to be designed to develop the academic language skills of limited English proficient students in upper elementary and secondary schools, and is intended to meet the need of three types of students (O'Malley and Chamot, 1990: 191)

1- students who have developed social communicative skills through beginning level ESL classes or through exposure to an English-speaking environment, but have not yet developed academic language skills appropriate to their grade level;
2- students who have acquired academic language skills in their native language and initial proficiency in English, but who need assistance in transferring concepts and skills learned in the first language to English (this corresponds to our kind of students); and
3- bilingual English-dominant students who have not yet developed academic language skills in either language.

The CALLA instructional design is *task-based*, and is identified within the Metacognitive Model of Strategic learning (Chamot *et al.*, 1999: 43). It comprises five phases in which teachers combine the three components of content, language, and learning strategies (Chamot *et al.*, 1999: 7): preparation, presentation, practice, evaluation, and expansion (Appendix A)

According to (Chamot *et al.*, 1999:1-2)**,** metacognition, or reflecting on one's own thinking and learning is the hallmark of the successful learner. The goal of learning strategies instruction is to assist students in developing awareness of their own metacognition and thus control of their own learning. Chamot *et al.* suggest, then, a metacognitive model that learners use to work through a language task. The model organizes the strategies according to the metacognitive processes which are recursive and not sequential: planning, monitoring, problem-solving and

evaluating in a way they become manageable and helpful to students and teachers. The figure (Appendix A) shows that strategies instruction starts out as more teacher-directed, with students taking more responsibility over time. CALLA's principal objectives (according to Chamot and Robbins, 2005:11) are to assist students in:

- valuing their own prior knowledge and cultural experiences, and relating this knowledge to academic learning in a new language and culture
- learning the content knowledge and the language skills that are most important for their future academic success;
- developing language awareness and critical literacy
- selecting and using appropriate learning strategies and study skills that will develop academic knowledge and processes
- developing abilities to work successfully with others in a social context
- learning through hands-on, inquiry-based, and cooperative learning tasks
- increasing motivation for academic learning and confidence in their ability to be successful in school
- evaluating their own learning and planning how to become more effective and independent learners.

To conclude, CALLA principles could be adapted in order to implement writing instruction in more practical terms, setting out some key ways in which teachers can plan, sequence, support, and assess writing and learning. The learners would learn language content but regulate their own learning in an autonomous fashion. The ultimate goal would be to develop learners' proficiency in writing by building and reinforcing their metacognitive awareness.

1.6. Metacognitive Awareness in Writing

Since its emergence in 1970s, the concept of metacognition is more and more gaining room in modern learning. Many educationalists have conducted studies to investigate the role of self-knowledge and control over cognitive activities in different problem-solving situations; the results from these studies clearly indicate that there is a link between metacognitive knowledge and learning performance. They equally provide proofs that in an EFL situation, metacognitive knowledge is of paramount importance for success in writing. It is then necessary to approach the concept of metacognition in order to understand its link with learning in general and with writing in particular.

1.6.1. Defining the Concept of Metacognition

The term ‘metacognition’ was first used by Flavell (1976, 1979) who was basically influenced by the work of Piaget, himself credited with establishing the dominant psychological theory of intellectual development**.** Commonly referred to as "cognition about cognition", or "knowing about knowing”, metacognition includes knowledge about when and how to use particular strategies for learning or for problem solving. Flavell (1976: 232) defines metacognition as follows:

> In any kind of cognitive transaction with the human or non-human environment, a variety of information processing activities may go on. Metacognition refers, among other things, to the active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects or data on which they bear, usually in service of some concrete goal or objective**.**

Most researchers agree that cognition and metacognition differ in that cognitive skills are necessary to perform a task, while metacognition is necessary to understand how the task was performed (Garner, 1987). Subsequent uses of the term in the field of cognitive psychology mostly evoke awareness of one's thinking, an active monitoring and self-regulation of one's cognitive processes in relationship to further learning**,** and an ability to retrieve learnt strategies in new contexts (Rai, 2011).

1.6.1.1. Main Constituents of Metacognition

According to Flavell (1976), metacognition has two major constituents or aspects: metacognitive knowledge and metacognitive regulation.

(1) Metacognitive Knowledge (also called **metacognitive awareness**) is what individuals know about themselves and others as cognitive processors. Flavell (1979) defines cognitive knowledge as knowledge about one's own cognitive strengths and limitations, including the factors that may affect cognitive activities. He classifies such knowledge into three types:

"Person" knowledge includes a person's beliefs about himself as a thinker or learner, and what he believes about other people's thinking processes. Flavell notes that one's beliefs about himself as a learner may facilitate or impede performance in learning situation. Wenden (1998) posits that person knowledge may concern cognitive and affective variables among which are age, language aptitude, motivation, and self-efficacy beliefs.

"Task" knowledge concerns the information about a proposed task that enables the learner to manage the task and informs him of the degree of its difficulty, the skills needed for its completion, the range of its possible acceptable outcomes, and the goals related to its completion.

"Strategy" knowledge refers to knowledge about the types of useful strategies, and their utility for learning. Flavell explains that these different types of knowledge can interact, as in the belief that one should use a specific strategy to solve a specific task.

Later metacognition researchers have used the concepts of declarative, procedural, and conditional knowledge to distinguish cognitive knowledge types and explain strategic knowledge (Chamot *et al*. (1999), and Schraw *et al.* (2006)):

Declarative knowledge (knowing about things) includes *what* an individual knows about things, and about the types of cognitive strategies available in one's repertoire.

Procedural knowledge (knowing about how to do things) involves knowledge about *how* to use the strategies to perform the tasks, such as reading, writing, math computation, and conducting science experiments.

Conditional knowledge (knowing when and why to do things) is knowledge of *why and when* to use a given strategy.

(2) Metacognitive Regulation or Monitoring is the regulation of cognition through a set of activities that help people control their learning. It includes activities of planning, monitoring or regulating, and evaluating (Cross and Paris, 1988; Paris and Winograd, 1990; Schraw and Moshman, 1995).

- **Planning** involves identification and selection of appropriate strategies and use of resources, and can include goal setting, activating background knowledge, and time management.
- **Monitorin**g **or regulatin**g involves being aware of comprehension and task performance and can include self-testing.
- **Evaluation** includes revisiting and revising one's goals and appraising the products of one's learning.

With regard to EFL writing, Zhang (2010) explains that, 'person knowledge' may refer to the knowledge learners have acquired about themselves as writers, such as their attitude towards and motivation in English writing, their beliefs about their writing proficiency and their perceived ability to achieve certain writing objectives. 'Task knowledge' may include learners' knowledge about the purpose of a certain writing task, such as to improve their writing ability, and their information about the required skills to fulfill the task, such as a good command of English vocabulary and grammar, and a skilful mastery of developing ideas clearly and logically. 'Strategic knowledge' refers to learners' knowledge about pre-writing planning, on-writing monitoring of errors, post-writing checking and reflection (Zhang, 2010: 27).

1.6.1.2. Metacognition and Metacognitive Strategies

Using metacognitive strategies has become a salient feature of good self-regulated learners. Metacognitive strategies**,** according to Flavell (1979), are designed to monitor cognitive progress; they are ordered processes used to ensure that a cognitive goal (such as writing an effective sentence) has been met, and to compare cognitive outcomes with internal or external standards. Flavell (1979) indicated that a single strategy can be invoked for either cognitive or metacognitive purposes. He gave the example of asking oneself questions at the end of a learning unit with the aim of improving knowledge of the content, or to monitor comprehension and assessment of the new knowledge.

On the other hand, Chamot *et al.* (1999: 157-159) maintain that three cognitive models shed light on how learning strategies work and support the importance of learning strategies and the goal of helping students become independent learners: information processing, schema theory and constructivism**.** *Information processing theory* examines the thinking processes associated with learning and remembering. Explicit introduction to strategies, including when and why they are useful, helps support this metacognitive control. *Schema theory* suggests that our pre-existing knowledge is stored in organized structures called

schemata, i.e. “concept maps” of a central concept and its associated ideas. Having schemata, allows us to make predictions, visualize events, draw inferences, monitor comprehension, and so make learning possible. *Constructivism* suggests that learners actively construct meaning by using appropriate cognitive strategies to relate their background knowledge with new information.

In the light of these findings, strategy-based instruction seems significant in order to ensure a successful learning experience that would lead learners to be self-regulated and autonomous. It is also important to figure out the link between metacognition and language learning.

1.6.2. The Place of Metacognition in Language Learning

Various studies have considered the relationship between metacognition and learning, and have found out that possessing a strong metacognitive knowledge base is critical to successful learning (Baker and Brown, 1984; Devine, 1993; Flavell, 1979; Kasper, 1997). In this context, Kowalke maintains that “To make sure that children become intelligent, insightful, educated human beings, we educators must help them become conscious of their own learning and thought process. Instead of teaching students *what* to think, we need to teach them *how* to think, and how to think for themselves” (Kowalke, 1998: 234). Recognising the importance of metacognition in learning has required the application of appropriate teaching and assessment principles in order to improve learners’ performance, particularly in a language learning context.

1.6.2.1. Importance of Metacognition for Learning

A good learner is "one who has ample metacognitive knowledge about the self as learner, about the nature of the cognitive task at hand, and about appropriate strategies for achieving cognitive goals" (Devine, 1993: 109). A point of view shared by Wenden (2001) who claims that metacognitive knowledge is not only essential for successful learning but also has a direct impact on all students’

decisions about learning. As has been mentioned earlier (under 1.5.3.1.), (Chamot *et al.*, 1999: 2-3) posit that

> Metacognition, or reflecting on one's own thinking and learning, is the hallmark of the successful learner… Learners who are aware of their own learning processes, strategies, and preferences are able to regulate their learning endeavors to meet their own goals; in other words, they become increasingly independent and self- regulated learners

In addition, self-regulating learners are remarked to use more effective learning strategies and to be better performers and more powerful second language learners (Anderson, 2002; Schraw, 1998). Schraw on the other hand maintains that metacognitive knowledge is multidimensional, domain-general in nature, and teachable. Significantly, research demonstrates that teaching individuals to acquire metacognitive knowledge facilitates self-awareness of their cognitive processes and as a result, provides improved control over their learning and performance. For this reason, Pucheu (2008:17) urges that instruction be directed towards developing declarative, procedural and conditional knowledge and notes that

> In order to attain high levels of ability in students, instructors should utilize knowledge structures, procedural cognition, example and experience, all of which should be preeminent throughout education. Students can be taught how to think, problem solve, self-regulate, self-assess and how to apply these metacognitive skills to learning. They can, and should, be taught how to learn.

1.6.2. 2. Implications for Teaching Metacognition

In his 1979 work, Flavell acknowledged the varied applications of metacognition, such as oral skills of communication, persuasion and comprehension, reading, writing, language acquisition, memory, problem-solving, and self-instruction, and he encouraged the development of metacognition in school children since 1987.

Though there has been no complete agreement over when and how to teach learners metacognitively, researchers have recommended a number of specific instructional approaches for this purpose. For instance, Cross and Paris (1988) recommend providing explicit instruction in declarative, procedural, and conditional knowledge. Similarly, Schraw *et al*. (2006) and Schraw (1998) urge educators to provide explicit instruction in cognitive and metacognitive strategies, emphasizing on how and when to use strategies, and why they are beneficial. Schraw (1998) suggests using a checklist with entries for planning, monitoring, and evaluation, with subquestions included under each entry that need to be addressed during the course of instruction. Furthermore, Kramarski and Mevarech (2003) provide students with sets of metacognitive questions to be completed during the task. These questions aim at encouraging students to reflection, problem solving, strategy selection, and background knowledge activation.

Researchers also recommend the use of collaborative or cooperative learning for encouraging development of metacognitive skills (Cross and Paris, 1988; Paris and Winograd, 1990; Schraw *et al.*, 2006; and Mevarech *et al.*, 2007). This recommendation is based on Vygotskyian tradition according to which students improve cognitively when they interact. To note that Vygotsky identified the zone of proximal development as the distance between what an individual can accomplish alone and what he/she can accomplish with the help of a more capable other (either a peer or adult). Constructivist learning environments should provide students with the opportunities to reflect upon their thoughts and negotiate ideas with peers and teachers thus enhancing students' cognitive and metacognitive outcomes (Wen *et al.*, 2004).

According to Schraw (1998) and Cotteral and Murray (2009), students' metacognitive development can be enhanced when learners are provided with both freedom and support to explore and expand their metacognitive knowledge by taking responsibility for all aspects of their learning; in addition to the role of the teacher as facilitator of learning and language advisor. Nevertheless, metacognition is a complex construct with a number of different types of knowledge and skills that makes its observation and its assessment quite difficult.

1.6.2.3. Methods Used for Assessing Metacognition

Common methods for measuring metacognition include self-report methods such as questionnaires or rating scales. For example, Kramarski and Mevarech (2003) used a metacognitive questionnaire, assessing both general metacognition and what they called domain-specific metacognition (such as math strategies). Students were presented with a range of strategies and asked to indicate whether and how often they used the strategies, employing a 5-point Likert scale that ranged from "never" to "always." Another example is the Metacognitive Awareness Inventory, developed by Schraw and Dennison (1994). It is a fifty-two item self-report questionnaire which is used for measuring metacognitive awareness by considering both knowledge of cognition and regulation of cognition. On the other hand, Scoring Rubrics consist of a scale of descriptive performance-criteria which specify several levels of quality in student work. This scale is often considered as providing instruction and assessment at the same time since it enables students monitor their own learning and so improve metacognitive skills (Pucheu, 2008). Another assessment method for metacognitive development is the Think-aloud approach that is based on teacher observation of student learning that attempts to make student thinking visible. It is noteworthy to add that observation is believed to have more validity and advantages than the others methods, because it does not depend on the student's verbal ability and working memory capacity, and can be integrated in the context of instruction and learning; moreover, observations record actual learner behaviors the fact that enables nonverbal behaviors to be taken into

account (Whitebread *et al.*, 2009 qtd in Rai, 2011). Finally, Perry (1988) argues that writing activities, especially those involving students in all stages of the writing process (planning, drafting, editing, and revising) offer large opportunities for self-regulated learning. It is important to note that some research instruments are linked to specific domains such as reading; others measure more general metacognitive knowledge, such as setting goals, but no single instrument is capable of a comprehensive measurement of all of the theoretical constructs of metacognition. Therefore, metacognition assessment instruments have typically focused on only a single dimension of the construct at a time. In what follows, there is an application of metacognitive awareness in a specific domain: writing.

1.6.3. Metacognitive Awareness in Writing

It is not until the 1990s that writing researchers have begun to promote the integration of metacognition into L1 and L2 writing research and instruction. Nevertheless, despite extensive studies in reading research, our understanding about writers' metacognitive strategic knowledge and self regulation is still at its beginning. In fact, numerous studies on metacognitive instruction involve reading or listening, (rarely) writing, language acquisition, problem-solving and cognitive self-regulatory functions. Many of these studies emphasize that learning strategies necessary for proficiency in reading and writing are directly linked to reasoning processes and the development of thinking. The results from the studies in L1 and L2 writing (Devine, 1993; Kasper, 1997) indicate that there is a link between metacognitive knowledge and writing performance, and that "metacognitive variables play an even more important role than linguistic competence in successful second language writing" (Devine, 1993: 116).

1.6.3.1. The Influence of Metacognitive Knowledge on EFL Writing

The need for metacognitive knowledge in EFL writing has been documented by prominent researchers; Devine (1993), for example, asserts that second language writers often have the problem of a limited metacognitive knowledge and an inability to determine if they are making progress towards the goal of the writing task. He also adds that students may not even have clearly defined goals for the English language writing tasks in which they are engaged. Furthermore, according to Zamel (1985), ESL students often depend on the instructor to clarify writing goals and monitor progress, yet students ought to learn how to set objectives and monitor their progress in line with the defined writing objectives. Zhang (2010) also finds that learners' metacognitive knowledge base is not strong, and that successful employment of metacognitive knowledge helps EFL learners' writing proficiency. Swartzendruber-Putnam (2000) even believes that the ability to reflect on writing tasks is the essence of the difference between 'able' and 'not so able' writers. In fact, Zhang's research results (2010) corroborate those of kasper's (1997) and demonstrate that a good command of metacognitive knowledge can empower EFL learners in their English writing and cultivate their learning autonomy in English learning. In addition, Angelova (2001) indicates that the quality of the written product is affected by the students' knowledge about their method of planning and about the conventions of writing in the target language. Angelova explains that failure in EFL writing is due to the lack of conscious knowledge about the complexity of writing as a cognitive task; thus, she urges teachers to find appropriate pedagogical tools to help their students become aware of the different factors that shape their writing. Consequently, and since developing English writing competence presents a great challenge to ESL/EFL learners and that writing proficiency is essential for normal study (Kasper, 1997), educators should include the instruction of metacognitive knowledge as a component of teaching programs (Chamot and O'Malley, 1994; Cohen, 1998; Holec, 1994).

1.6.3.2. Metacognition in the Writing Classroom: Instructional Practices

Many educationalists have contributed with insightful studies to promote metacognitive awareness in writing instruction. To begin with, according to Kasper (1997) and Zhang (2010), teachers can design activities to help increase students' motivation and self-efficacy in writing to improve their person knowledge. Their results suggest that it is important to raise students' awareness of the specific strategies that can be employed in the writing process, such as to think from readers' perspectives, to reflect upon their writing, and to revise their compositions for improvement. On the other hand, Swartzendruber-Putnam (2000) posits that students should 'step back', think, and reflect on how their writing is progressing and what they are learning. To this end, Swartzendruber-Putnam suggests workshop activities including learning logs, reflective letters and portfolios as an opportunity to practise writing techniques, and conjointly to practise reflection in order for students to become better writers and thinkers. Moreover, Angelova (2001) advocates an explicit instruction in metacognitive strategies and characteristic features of the writing task as part of the instructional activities in a writing class. She maintains that students should be sensitized to their writing style and attitude to writing through questionnaires, discussions, and reflective journals. She explains that such activities will help students to change their metacognitive model of writing and thus become more competent writers. For his part, Xiao (2007) insists on the integration of metacognition into EFL writing instruction by training teachers and students to teach and learn with metacognition; and explains that when instructors teach metacognitively, students can learn what strategy to use, why, when and where it should be used, and equally how to evaluate their writing processes and written products. He also assumes that scaffolded instruction in the classroom requires EFL writing teachers to adopt teacher modeling, thinking-aloud, self-questioning, and cooperative learning at the same time to provide students with guided practice until their metacognitive strategies move toward an automatic state. Xiao clarifies that metacognitive instruction needs to be an integral part of the instructional objectives and to be taught over an entire school year, and requires a lot of patience.

To sum up, the results of these studies suggest that instruction designed to strengthen students' metacognitive awareness in writing should be introduced as an integral part of EFL writing instruction. These findings also reveal that EFL students should be trained to develop, monitor, reflect on and evaluate their progress in writing; this in turn can help them attain the English language writing competence so necessary to their academic progress and so become not only better writers but also autonomous learners. In practical terms, most authors advocate a direct and explicit strategies instruction that provides students with guided practice until they build their own metacognitive model of academic writing and learning. Nevertheless, as Kowalke (1998: 220) found, it is important to acknowledge the demands of such endeavour and be aware that "Facilitating thoughtful, metacognitive learning in the classroom is not especially difficult, but it does take time, understanding, and a vision that goes beyond the traditional classroom values. The end result, however, is an increased awareness for students not only of what they learn, but how they learn it and what they can do with that knowledge".

1.7. Conclusion

This review of literature has permitted us to perceive writing as a complex activity which represents an act of communicating, thinking, learning, exploring, and problem-solving. It requires from teachers and learners to build awareness about writing on a multidimentional scale: linguistic, cognitive, and pedagogical. According to many researchers and educationalist, writing goes beyond the mere graphic representation of speech to a cognitive representation of thought and knowledge and further to a metacognitive monitoring of a sophisticated process that brings together knowledge about the topic and knowledge about the appropriate strategies that would enable writers to express themselves effectively in the written mode. In fact, various studies have considered the relationship between metacognition and learning, and have found out that possessing a strong metacognitive knowledge base is critical to successful learning. The results of these studies suggest that instruction designed to strengthen students' metacognitive

awareness in writing should be introduced as an integral part of EFL writing instruction. These findings also reveal that EFL students should be trained to develop, monitor, reflect on and evaluate their progress in writing; this in turn can help them attain the English language writing competence that is necessary to their academic progress and so become not only better writers but also autonomous learners. These students need, thus, an instructional framework that promotes both their learning and writing strategies and would build their metacognitive awareness for an acceptable writing and EFL proficiency. For such an aim, it seems relevant to start considering their EFL learning and writing contexts before and during university years in order to draw their learning profiles and come around their weaknesses and needs.

CHAPTER TWO

WRITING IN THE ALGERIAN EDUCATIONAL CONTEXT:

A SITUATION ANALYSIS

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2.1. Introduction

This chapter attempts to give a systemic description of the educational context in Algeria, with reference to the EFL writing skill in higher education, specifically within the LMD context. The writing skill is chosen on account of its importance in learning and testing, particularly at university level; it is also of paramount importance as a research skill. Nevertheless, our students sill display weak proficiency level at this skill in particular, and at EFL learning in general. In order to understand the causes of such situation, an analysis of the teaching/learning of EFL writing skill would contribute in drawing an overall picture of our informants in terms of background knowledge, current learning practices, and possible lacks/needs. For such a purpose, the Algerian English Framework is portrayed as well as the objectives and syllabuses for EFL pre-university and university learners are described. This is done with particular reference to the LMD system, and in accordance with the pedagogical instructions and recommendations of the Ministry of National Education and the Ministry of Higher Education and Scientific Research. Moreover, different variables related to the teaching of the writing skill are considered: the place English has in the Algerian society, students' background EFL education in the pre-university and university levels, the place metacognitive instruction and technology in the different levels of education, teachers' training and development, in addition to English and writing programmes and evaluation practices. Therefore, it is important to overview the sociolinguistic and literacy background in Algeria. It is equally necessary to consider the educational context with its different levels in order to draw a comprehensive profile of these learners. In fact, the present chapter can be considered as needs-analysis oriented, that would help us adopt an appropriate research procedure.

2.2. The Sociolinguistic and Literacy Background

Before 1962 _that is during colonialism_, the French language prevailed as a medium of communication in Algeria, mainly is state-run institutions. In addition, all educational levels adopted French as the language of instruction. After independence, Arabisation was gradually introduced in the different administrations and school levels to replace French until it reached university level in 1980s. In fact, the generalisation of the teaching of the Arabic language in Algeria had the purpose of restoring national identity and culture as completely distinct from the French ones. At present, all streams and specialties in the different educational levels are taught in Arabic, except for medicinal studies. Furthermore, since independence, and in order to respond to political, economic, or cultural claims, foreign languages such as English, German, Spanish, Russian, Italian and even Turkish have been given importance as they are taught at pre-university or at university levels. However, the language given most significance is certainly English because of its international importance mainly as a fruit of the globalization process. Given the fact that standard Arabic is the language of instruction at the different educational levels, and that French is introduced in primary school level from the third grade, it is noteworthy that currently, five languages are involved in the Algerian linguistic scene: Algerian Arabic, Berber, Modern Standard Arabic, and French; a fact which shows Algeria as a multilingual country with different languages co-existing together, a major fact that has to be taken into consideration.

2.3. The Educational Context

The Algerian educational system comprises three pre-university levels: primary, middle and secondary. As part of educational reform launched by the Ministry of National Education since 2003, the ‘elementary’ school has replaced the ‘foundation’ school formerly instituted since 1984. Consequently, the primary school level comprises five years, with an optional preparatory year preceding the first primary year, while the middle school comprises four years instead of three (in fact, the overall number of compulsory years has not changed: 9 years). The objective of these two levels of pre-university education is to ensure for the younger

population basic instruction, which is compulsory till the age of 16. The secondary school level still counts the same number of years (3years) but with new streams and specialties and with the suppression of the technical high school. The 2003 reform was introduced as a remedy to the high rates of failure in primary, middle, and high-school education, illustrated mainly in BEF and BAC results. Nevertheless, widespread failure is still recorded at the BEM and BAC exam results in addition to the high number of drop-outs every year. Furthermore, quality is still lacking because of the growing numbers of learners and the absence of adequate pedagogical means to meet learning needs in terms of competent teachers, appropriate materials, and adequately-designed programmes. On the other hand, the tertiary level, under the supervision of the Ministry of Higher Education and Scientific Research, is distinct and completely different from the preceding ones in terms of enrollment conditions, objectives, teaching methodology and outcome graduates. Given these data, it is important to examine the place EFL and writing in the syllabuses designed for the different levels. For such a purpose the Algerian English framework is portrayed.

2.4. The Algerian English Framework: Pre-University levels

EFL in Algeria has witnessed a gradual development concerning its importance and role, curriculum goals, syllabus design and objectives in the different educational levels. English is now one of the most important languages of communication; it gives access to information in different fields: business, finance, medicine and technology. English has become the target language for public and private formation centres. Learners are more and more motivated to learn English because it is a highly mediated language through TV programmes, music and mainly Internet. It also represents job opportunities and travel prospects. In addition, students who become fluent in English are believed to be able to contribute to the development of their country. For such reasons, the Algerian authorities have proceeded to reform the existing educational policies to cope with the new world requirements. Therefore, much importance has been given to the teaching of EFL, and thus English has become a compulsory subject-matter in the

curriculum in Middle and Secondary schools. The aims of English teaching in Algeria as stated by policy makers are communication, creativity, and technology access, since English is perceived in the National Charter (1976) "a means to facilitate a constant communication with the world, to have access to modern sciences, modern technologies and to encourage creativity in its universal dimension(s)".

Consequently, English has been considered ever since as a second foreign language. It is taught in the Middle School for four years (from MS1) and for three years in secondary school. Since 2003, English is introduced at the level of MS1, extending as such the number of exposure years to EFL in middle school level from two to four. Thus, by the end of secondary education, the pupils will have accumulated an EFL learning experience of seven years. Therefore, new syllabuses and textbooks have been elaborated and introduced to improve ELT at both educational levels in order to achieve the traced objectives.

Nevertheless, despite a long exposure to English, EFL learners enter university lacking the necessary language and writing awareness required to pursue university academic studies (Ourghi, 2002). Miliani (2001), for his part, believes that the language problems Algerian learners face are the result of neglecting the Algerian socio-linguistic reality in language planning. What seems relevant then is to investigate the underlying reasons of the perceived inabilities in the instructional practices related to the different educational levels.

2.4.1. The Middle School Level

English is a compulsory subject-matter in the overall curriculum during the four years of instruction. In addition, it is considered an essential/ major subject-matter (together with mathematics, Arabic, and French). It is taught for 3 hours per week, in addition to a remedial session of 30 minutes devoted for extra activities, for the benefit of pupils with 'difficulties' in the language. According to MS4 guide (2008), the educational purposes of the Algerian English Curriculum are responsive to the social and educational context in Algeria, and that they derive from sound educational theory appropriate for Algerian learners and teachers. In what follows, a

closer consideration is granted for the ELT methodology and then to the place of writing, metacognition and technology in the MS curriculum.

2.4.1.1. The Place of EFL

The ELT methodology is task-based, as a major tenet of the competency-based approach adopted for all pre-university levels since the 2003 reform. CBA, a variant application of the Communicative Approach, advocates the shift from memory-based to problem-solving learning, taking into consideration learners' communicative needs and learning strategies. According to the 1AS Teacher's Book, CBA is action-oriented, problem-solving, cognitive, and social-constructivist. It prompts students to learn how to use language effectively and at the same time acquire leaning and life skills that would enable them to interact and function as social members. The affective domain is considered equally important; this is shown particularly in the adoption of the pedagogy of the project, which aims at inculcating such values as autonomy, creativity, initiative, and responsibility through problem-solving activities. CBA is then learner-centred. The methodology adopted in CBA is task-based, and so the skills appear in the syllabus in the form of meaningful tasks, engaging the learner in authentic language use, resulting in a shift from 'acquiring' to 'using' knowledge. The teacher plays the role of monitor, providing help when necessary.

The MS4 guide (2008) precises that there are three types of competencies for language learning: interactive, interpretive and productive. The learners are aspired to develop the ability to participate in spoken interactions, to understand and interpret what one reads and hear, in addition to expressing meaning and knowledge in speaking and writing. They are guided to develop linguistic competency alongside learning skills and strategies.

Following CBA principles, each MS textbook is organized into units or files divided into three main sequences and a project section, in addition to language focus and introduction to culture. In the main sequences, the four language skills are explored in an integrated fashion: listening with speaking and reading with writing.

The '*reminder*' section concerns consolidation of acquired knowledge. In fact, most activities aim at building and enriching vocabulary and grammar. The project section promotes collaborative learning through group work, and by using different resources among them the Internet and asking for help from different people including teacher, friends and family. Nevertheless, there is an over emphasis on oral skills perceived through the number of activities devoted for the oral practice, though MS3 and MS4 textbooks seem to give a more balanced focus to the four skills, grammar and vocabulary. It is noteworthy that, the units or files are organized around themes developing from concrete to abstract, and with a gradual hint to cultural aspects of the English speaking countries. These themes mainly concern people, school/work, abilities/interests, food and health, places, experiences, current events and issues, and stories.

Additionally, the learners are constantly subjects to different EFL testing and evaluation practices. Formative evaluation involves ongoing assessment in the form of short quizzes, paragraphs and oral participation in class. Summative evaluation, however, involves mid-term tests which are scheduled twice each term, end-of-term exams, and finally the BEM exam, a national contest, scheduled at the end of the fourth MS year.

Ongoing assessment reinforces the exam-oriented education, and evaluation in general takes much 'precious' time that could be exploited to reinforce learnt subjects. Therefore, the overloaded programmes and the frequent testing practices, prevent teachers from consolidating learnt items. Teachers are concerned more with finishing the programme within official deadlines to be reached for the final exam (BEM). In addition the coefficient of English in the first three MS levels is 1; it becomes 2 in the MS4. This shows the importance given to this language at this particular level.

2.4.1.2. The Place of Writing, Metacognition and Technology

The writing activities are introduced in growing difficulty and ranging from guided to free. In the beginning, focus is put on word formation to reinforce spelling and be able to make sound/letter connections. Later, pupils are introduced to sentence building using cues, and finally they are required to rearrange sentences to form a dialogue, or to write a letter or a paragraph on a given topic (Appendix B: writing activities in MS1 textbook). The writing activities are introduced at different steps of the pedagogic unit to reinforce vocabulary, grammar, and reading comprehension, or to consolidate knowledge acquired about the studied theme. Furthermore, writing is part of EFL tests and exams, and it is granted an important place in the overall mark (8 pts).

Throughout the different activities designed to develop the writing skill, the following writing strategies have been reported in MS curriculum (according to MS textbooks and guides):

Writing Strategies	**Tasks/Procedure**
Rhetorical	- organization - use of L1 (MS) - modelling (genre consideration)
Metacognitive	- planning - identifying problems (through peer editing) - monitoring (check your progress) - evaluating (the grids are language/accuracy oriented, mostly about grammatical forms
Cognitive	- brainstorming to generate ideas - elaborating and extending the contents of writing - retrieval (getting information from memory) - rehearsing (trying out grammatical functions or lexical items focused on during the unit)
Communication	- sense of reader (writing to a specific audience: friend, company, or the whole community)
Social/Affective	- resourcing (using dictionaries, Internet) - getting feedback from teacher through conferencing, or from peers

In what concerns learning strategies, the general organization of tasks and activities aim to provide practice for two major parts of the unit: language learning and skills building. Different learning strategies are presented throughout the teaching units in MS curriculum (according to MS textbooks and guides):

Learning Strategies	**Taks/ Activities/ Procedure**
Cognitive	- manipulating information through the four skills - resourcing: using dictionaries - translation (MS1) - anticipating - guessing - note-taking/making
Metacognitive	- planning - self-monitoring (checking progress through consolidation activities and portfolios) - self evaluation (filling in questionnaire/ learning log
Social/Affective	- pair, group, and project work

More importantly, monitoring, self-reflection self-evaluation are introduced in end of the file rubrics entitled ‘where do we stand now?” or ‘learning log’. These rubrics are intended to enable students to check their progress, identify their needs and use their answers to review lessons and lead learners to use what they have acquired autonomously in the regular sequences. They also enable learners to monitor their own learning by identifying points of weaknesses and strengths (Appendix C illustrates examples of learning logs from MS3 and MS4 textbooks). The development of autonomy is also valued through survival strategies in a section entitled “coping” and research tasks involving group work and peer evaluation. The evaluation grids focus on language forms and functions (listening and reading comprehension, speaking, vocabulary use) while very little items are destined to assess writing ability (some evaluation grids contain no reference to writing ability mainly those in MS2 and MS3). Even if they do so, teachers often skip that step of the unit.

As for the use of technology (ICTs), hints are given to using Internet as a source of information while preparing a project. Some sites and electronic addresses are provided to students, with the assignments, but no activities concretely suggest the use of technological tools. For instance, in MS1 textbook, an activity involves responding to an e-mail (p.26) to suggest to the use of technology for communication.

2.4.2. The Secondary School Level

The general objective of ELT, as expressed in *Syllabuses for English* (2004: 6) is to enable learners to "communicate efficiently in a normal and/or working situation both orally and in writing", in addition to help learners develop necessary competencies for adaptation and collaboration in their community, scientifically, culturally, and civically. It praises respect of self, of national values, and of global understanding (Programme de l'anglais deuxième langue étrangère**,** 2005: 4). ELT is aimed at contributing in the development of learners' communicative, linguistic, cultural and methodological competences that would enable learners to deal with situations in which they have to use oral and /or written modes of communication, taking into account their needs and those of the society in which they evolve. The following represents ELT objectives for pre-university levels (translated from Programme de l'anglais deuxième langue étrangère, 2005: 4-5):

	Objectives of ELT
Linguistic	- equip learners with necessary tools to pursue university studies in English (teaching Licence, interpreting…) - develop communication abilities
Methodological	- promote autonomous learning strategies that would permit to enlarge their knowledge - reinforce mental and intellectual abilities such as analysis, synthesis, and evaluation through pertinent activities
Cultural	- encourage learners to explore different cultural aspects of other linguistic communities in order to better understand and value own culture - favour positive attitudes towards others
Socio-Professional	-be able to consult and use scientific, literary, technical, economic, or cultural documents during study/professional life.

At the end of the third year, the pupils are expected to achieve a satisfactory mastery in the four skills: listening, speaking, reading and writing, and be ready to use language as an investigative tool at university level or in the job field. As part of the 2003 reform, new textbooks have been made available to replace the preceding ones and institute the CBA approach and methodology (explained under 2.3.1.1). The official SE guide books explain that ELT within CBA methodology is learner-centred, and aims at answering learners' learning needs and communicative interests in an appropriate learning environment that acknowledges their differences in styles and strategies. CBA grants priority to the conscious construction of learning; it also permits to establish the basis for subsequent learning.

2.4.2.1. The Place of EFL

Secondary education lasts three years at the end of which a Baccalaureate examination is held. EFL is also a compulsory subject-matter for all the streams, during the three years of SE, where two major streams dominate: literary and scientific. Different sub-streams emanate from each stream in the second in SE2 and SE3; as a consequence, the objectives and the EFL syllabi differ according to learners' needs in each stream, and so do the number of the teaching units to be covered in each syllabus, the coefficient and the time load. The following table shows the place English sustains in the curriculum. The coefficient is low, compared to the English language importance for learners.

Table2.1. ELT time load and coefficient in the secondary education

Streams	**Weekly Time Load and Coefficient**					
Literary Streams	**SE1**		**SE2**		**SE3**	
	TL	**coef**	**TL**	**coef**	**TL**	**coef**
-Literature and philosophy	3hs	3	3hs	3	4hs	3
-Foreign languages	/	/	3hs	4	4hs	5
Scientific streams						
- Natural Sciences	3hs	2	3hs	2	3hs	2
- Mathematics	/	/	3hs	2	3hs	2
- Technical Mathematics	/	/	3hs	2	3hs	2
Management streams						
- Economy and Management	/	/	3hs	2	3hs	2

TL: Time Load **Coef :** coefficient

Different criteria have been put forward for the elaboration and evaluation of textbooks. These criteria include, among others, methodology, instructions, syllabus type selection and grading, linguistic coverage, and cultural acceptability. The SE EFL textbooks are organised into units dealing with different themes, and based on three competencies: interaction, interpretation and production, relying on CBA principles, namely learner-centredness and project-orientation. The files are presented in the form of sequences: listening and speaking, reading and writing, developing skills, consolidation and extension, project workshop, and check your progress. The topics encompass the world beyond Algeria to include issues that involve critical thinking: English as an international language, technology, ethical situations and dilemmas. The different units also develop language functions, grammatical structures and language components along with study skills and strategies. The pupils have to treat the themes related to their streams with their teachers' guidance and help, keeping in mind the end of the year Baccalaureate examination. Throughout the different units, learners are exposed to different types

of discourse embodied in different text types (texts, dialogues, and letters) to move from skill getting to skill using. The language structures are to be studied, the rules drawn and then consolidated through different activities. In addition, the four language skills have to be taught in an integrated way to reach a suitable fluency. Finally, evaluation is undertaken into summative and formative fashion: pupils are subject to ongoing assessment, mid-term tests, end-of-term exams, and BAC exam by the end of SE years.

2.4.2.2. The Place of Writing, Metacognition, and Technology

In line with the principles of CBA, and taking into consideration that tests and exams (including BAC exam) are exclusively written, the writing activities in SE textbooks aim at equipping learners with necessary language and thematic background to express themselves fluently and accurately in different 'real-life' situations. Since the pupils are exposed to different discourse patterns through different text types and styles: radio interviews, dialogues, news reports, encyclopedia entries, newspaper and magazine articles, excerpts from works of fiction, poems, etc., they are equally required to write in these rhetorical modes and genres (descriptive, narrative, expository, and argumentative). In the first year, they are asked to write paragraphs, dialogues and letters. In later stages, they are asked to write compositions of many paragraphs.

In SE textbooks, reading and writing are integrated; furthermore, the different units offer a sequence in which learners consolidate their grammatical and lexical knowledge through a meaningful piece of writing. At the end of each unit, the pupils are asked to prepare, write and present a project. The project pedagogy is the heart of CBA since it embodies all its principles of interaction, reflection, production, problem-solving and transferring knowledge to real-life settings. Additionally, the official guides explain the writing lesson to be graded in that it follows three phases: brainstorming, writing the first draft, and reviewing. The guides also mention self- and peer-editing as common practices before arriving to a final draft. The learners are expected to attain an adequate mastery of the different writing skills to move gradually from guided to free composition while exploiting

the different themes included in different text types, and focus should be on the message rather than the form, thereby tolerating form errors which do not hinder the transmission and the reception of the message. Overall, the writing lesson and activities must be based on learners' needs and abilities. The following table illustrates the writing strategies reported with the different writing activities and strategies in SE textbooks, (according to SE textbooks and guides):

Writing Strategies	**Tasks/Procedure**
Rhetorical	- organization (beginning, development, ending) - modeling (genre consideration, by writing, paragraphs, articles, letters, advertisement, book/film review) - using different rhetorical conventions (by writing descriptive, argumentative, expository, narrative (story),
Metacognitive	- planning - monitoring (by identifying problems through peer editing and by 'check your progress' activities) - evaluating (reconsidering written text through teacher's and classmates' comments)
Cognitive	- brainstorming to generate ideas - elaborating and extending notes - retrieval (getting information from memory) - rehearsing (practicing vocabulary items, grammatical functions, or particular expressions underlined during the unit) - summarising
Communication	- sense of reader (responding to an e-mail, writing an advertisement for, and application letter)
Social/Affective	- using Internet - getting feedback from teacher or from classmates

The writing skill is evaluated along the school year in the form of tests or homework, and at the end of the year during exams. An EFL exam is basically written; the oral practice of the language is not tested at all. In addition, each EFL exam in English, including the Baccalaureate exam, is divided into two parts:
the first one consists in Reading comprehension and Text Exploration, and part two consists in Written Expression. The learners are asked to choose one of the two

topics suggested. One is guided consisting of note-expansion, while the other consists of free personal expression. The length of the composition and the evaluation scale for the written expression part depend on the stream.

Table2.2. Written expression in EFL exams: Number of words and correction scale

SE Streams	Exam Sections	Mark	Number of Words required in the Written Composition		Scale	
					topic 1	topic 2
	Reading comprehension	8				
Scientific, Mathematics and Economy						
	Text Exploration	7				
	Written Expression	5	80 to 120	form	2,5	2
				content	2,5	3
	Reading Comprehension	7				
Literature and Philosophy	**Text Exploration**	8				
	Written Expression	5	100 to 120	form	3	2,5
				content	2	2,5
Foreign Languages	**Reading Comprehension**	7				
	Text Exploration	7				
	Written Expression	6	120 to 150	form	3,5	3
				content	2,5	3

At the beginning of every unit, the purpose and the final outcomes of the file are stated for the sake of preparing learners for the different tasks and assignments to be encountered. Furthermore, each unit is followed by an evaluation grid or a learning log in which pupils are supposed to reflect on their own learning and say how much they have achieved in the leant unit (Appendix D illustrates an example of self-assessment grid in SE curriculum). In addition, it is important to note that throughout the different units, the learners are trained to develop language

skills along with strategy skills. The following table rounds up the different learning strategies reported in SE curriculum (According to SE textbooks and guides):

Learning Strategies	**Taks/ Activities/ Procedure**
Cognitive	- manipulating information through the four skills - predicting - activating background knowledge - problem-solving (as in hidden messages, work it out sequence). - synthesis of learnt materials - resourcing (using Internet sites) - note-taking/making
Metacognitive	- reflecting and analysing how English is used. - setting goals - self-monitoring (checking progress through consolidation activities and portfolios) - self evaluation (filling in questionnaire/ learning log)
Social/Affective	- interaction (pair, group, and project work) - participation in class and negotiating meaning - know-how skills to transfer knowledge acquired in class to real-life situations.

In addition, little place is devoted to technology in SE textbooks. Though the official guidelines assert the use of ICTs for the sake of ELT (in the form of audio and video material, CDs, and Internet use with the use of e-mails, chatting, sites for collecting information), no activities are clearly suggested with such materials. Learners are only guided for sending and receiving e-mails and using Internet as for research, since it is believed that "they will resort naturally to Internet search either on their own or following the occasional webliography given to them as an aid to the research and report and project outcomes assignments" (SE 3 textbook, p.6).

2.4.3. An Evaluation of ELT at Pre University Level

The aim of ELT at pre-university levels is to achieve communicative competence in English; that is to enhance interaction with others using receptive/interpretive skills (reading and listening) and productive skills (speaking and writing), supported by the ability to use vocabulary and grammar appropriately and employ a range of language strategies that help convey and clarify meaning, and transfer knowledge to real-life situations. The teaching methodology, essentially learner-centred, is supposed to enhance individual learning and learning with peers too. Furthermore, the teacher's guide mentions peer- and self-evaluation (thus metacognition) through goal setting, checking progress, reflection and learning logs, so the learner is introduced to the process of learning to learn (see Appendix E and Appendix F, showing the place of self-reflection/evaluation in Writing instruction, in MS and SE curricula respectively). As a result, learners learn to become more active, more responsible of their learning and thus autonomous. The teacher's role becomes a guide and a mediator between the learner and knowledge.

By the time they sit for the Baccalaureate exam, the pupils will have studied for an overall period of 12 years. During this period, the language of instruction in all subject-matters is standard Arabic. In addition to 10 years of French study, learners will have accumulated an English learning experience of 7 years, during which they are exposed to a rich programme, and have sat for many formal tests and exams. Pupils are, then, supposed to have mastered not only basic components of the English language, but also have achieved 'satisfactory mastery' in the four language skills, and so have acquired the necessary linguistic and communicative competence. In writing, they should be able to produce, starting from a reading or a listening passage, a text of at least 25 sentences, while respecting the formulated communication objectives. Nevertheless, the objectives traced for pre-university levels are over ambitious and do not consider sociolinguistic constraints nor pupils' real cognitive and linguistic capacities. There seems to be a clear discrepancy between the stated objectives and the educational conditions put forward to attain these objectives. This can be seen in the teaching

conditions: overloaded programmes, low coefficient subject-matter, large classes, absence of adequate materials or teaching aids, insufficient time allotted for the teaching of EFL, and incoherence between teaching practices focusing on oral skills and tests and exams which are only written. The result of such a paradox is apparent in learners' failure in tests and exams, (particularly, BEM and BAC exams) and even in the low linguistic and thinking abilities of those who go on further studies at university level. The reasons behind such situation may be that not enough time and energy are devoted for fostering learning and writing strategies (cognitive, metacognitive or other) into learners. In addition teachers are overwhelmed by growing numbers of pupils, overloaded programmes and administrative tasks. Furthermore, pupils' contact with the English language is limited in time and is inexistent beyond the classroom setting, as it is considered a foreign language with no utility in the wider community. Consequently, pupils choose to focus their attention and spend energy on high coefficient subject-matters in their respective branches, and consequently, these pupils display a low proficiency level in English, a fact that is widely noticeable in official exams. What can be suggested so far is that there is a clear discrepancy between ELT objectives expressed in official guides, the teaching tasks and procedures in the school textbooks and the real teaching practices. To conclude, failure in writing is closely related to failure in EFL teaching in general, and in order to improve learners’ proficiency in this skill, we have to reconsider ELT objectives, methodology, teaching practices, and learning environment.

2.5. The Algerian English Framework: University Level

Tertiary education, under the supervision of the Ministry of Higher Education and Scientific Research, aims at producing competent workers in the different job fields so that they can contribute to the country development. At this level, English is necessary for international exchanges, in banks and enterprises such as oil companies, or computing. English is then the key to global communication. Thus, ELT has to go in line with national and international demands for economic growth and political supremacy. This can be achieved only with setting up new curricula that embody globalization principles and that adhere to a new world where technology plays a vital role. Well aware of the role EFL has in educational, economic, political, and cultural development, policy makers have included English as a compulsory subject-matter for most university majors (specialties), with the purpose of equipping Algerian graduates with the necessary linguistic tools to gain access to the scientific and technological knowledge stored in English, and to communicate effectively and operate successfully in their professional fields, at national and international levels.

Nevertheless, despite growth in Algerian higher education in terms of infrastructure, material and human resources, the traditional (classical) system prevailing since independence could not meet the social, economic and political challenges and respond to the Algerian job market demands, mainly in a globalised world. Teaching and evaluation practices were old-fashioned and the whole system had become obsolete. Therefore, there was an urgent necessity to introduce changes at tertiary level in order to improve teaching and learning practices so as to raise success rates, and better the quality of education to produce more competent graduates who would contribute to the development of the country. The solution policy makers opted for was the implementation in 2004 of a new system that could meet the said demands and ensure socio-economic mobility; that was the LMD system (standing for ‘Licence-Master- Doctorate’).

2.5.1. The LMD System: Facts and Objectives

Inspired by the European Reform of Higher Education, Algeria adopted and implemented the LMD system, also known as "The Bologna Process" advocated in 1999 by 29 European countries. Policy makers at higher education level aimed at reforming and replacing the dissatisfying traditional teaching and learning practices so as to achieve better learning and professional outcomes. Therefore, new teaching offers and curricula were conceived, based on the specific needs of the country. The Algerian reform targeted teaching, learning and evaluation, in addition to inculcating new teacher and learner roles to operate more efficiently in a world characterized by the expansions of knowledge, technology and globalisation.

The purpose of the LMD system is to ensure more opportunities for development by building up partnership with the European countries that adopt the same system. It is meant to produce better-qualified graduates who can evolve in the job market and join the worldwide community with a more valuable degree. It also aspires to help integrate the European Union by facilitating a greater mobility of students, teachers and researchers. As a result, the Algerian government has first implemented this system in 2004, in 10 pilot universities (among them Blida) before generalising it for all universities (after an official decree number 08-265 on August 19th, 2008), in the form of standard degree courses in all subjects except medicine. In fact, there was no balance between different universities in the beginning because every university was free to decide for its own curriculum; however, a common framework for first and second year levels (semesters 1, 2, 3, and 4) has been officially decided under official decree number 500 (July 28th, 2013). This new course planning (Licence, Master, Doctorate) is based primarily on:

- a pluridisciplinary formation that brings learners knowledge and know-how skills
- more focused subject-matters
- teaching syllabus and methodology that enables learners to be used to observation, analysis, synthesis, and research procedures to complete their assignments.
- more chances of passing years for students because of a new evaluation vision

- pedagogic supervision (tutoring) of students
- new learner roles: learners have to be active, responsible and autonomous
- new teacher roles: teachers have to be reflective and inspiring guides
- mobility of students, teachers and researchers, and this gives more chances for advanced studies and professional training through international programmes
- internationally recognized degrees and a profound acquisition of English for students.
- renewal of pedagogic knowledge, and improvement of teaching practices for teachers in order to produce better EFL graduates, who are more likely to be employed.
- valuing the role of ICTs; thus, formation modes can be different: face-to-face, at distance or blended
- explicit formal objectives and specific graduate profile that responds to job market required qualifications in terms of abilities and competences
- employability and professionalization: a Licence or Master course may take two different forms: academic or applied/ professional. Accordingly, graduates have more chances for employability in the job market or in jobs related to knowledge production and transmission (teaching, research, syllabus development…)

The LMD system organises curricula at university level into *domains* (science and technology, natural sciences, humanities, arts and foreign languages…) including *courses* (parcours) which can be academic or vocational. Every pedagogic course is divided into four types of units: *fundamental* which all students must validate, *methodological* which enables the acquisition of the autonomy of learning, *discovery* (découverte) which facilitates orientation and bridges between specialties, and *transversal* which offers linguistic and technical tools for students. A teaching unit constitutes a number of subject-matters conveying a specific part of the syllabus. Each subject-matter is assigned a coefficient and a specific number of credits. Credits (known as ECTS- European Credit Transfer System-) are units of account expressed in numerical value which represents knowledge and competencies acquired by students, and every credit represents 20 to 25 hours of

work. This three-cycle system is organized into three levels, including two semesters each; in turn, each semester is worth 60 credits:

Level 1: Licence: 3 years of basic learning, 6 semesters (180 credits)
Level 2: Master: 2 years, 4 semesters (120 credits)
Level 3: Doctorate: 3 years, 6 semesters (180 credits)

The credits are definitively acquired and are transferable in Algeria and in the countries adopting the LMD system. They are calculated in terms of time load devoted for a subject-matter and in terms of learners' efforts (learning, training, memoire, projects, or personal work). It is noteworthy that evaluation is formative and summative, and that the students have to make efforts during the whole year and not just during exams (at the end of semesters). In addition, every level is acquired when the corresponding number of credits is attained, or if an average mark of 10/20 is reached by the end of the two semesters (of every level). It is important to note that a greater flexibility characterizes the LMD system in passing requirements since students may pass to the following level with debts. In addition, the concept of bridges (passerelles) enables learners to change their course while maintaining the acquired credits.

Nevertheless, it is important to consider some difficulties emanating from the implementation of the LMD system:

1- Contradictions between LMD objectices and the conditions put forward for its implementation: a growing number of students without having necessary conditions to meet their needs, in particular infrastructure conditions (rooms and laboratories), materials (computers, Internet connection, and human resources –qualified teachers), in addition to the lack of library facilities to encourage autonomy of learning.

2- Lack of correspondence between pre-university and university objectives, curricula and methodologies is apparent in learners' poor thinking and linguistic abilities that would enable to effectively cope with the demands of

a new academic context, where responsibility and autonomy of learning are the key factors to success.

3- Absence of training workshops to support teachers' adherence to the new system and remedy their lack of openness to change. In fact, a successful education programme depends on many factors; one of these is the degree of preparation of teachers for change since "Time and money invested in new syllabuses and curricula may be wasted if teachers are not convinced of the need for change nor prepared for the different expectations made of them by a new method or curriculum policy" (Richards, 1985: 13).

4- Persistence of traditional teaching practices and subject-matter contents as LMD curricula faithfully follow the previous ones; as Miliani posits, 'several teachers simply changed the modules' labels of the old subjects, away from the innovative procedure introduced.' (Miliani, 2005: 28).

5- Persistence of evaluation practices that focus on the percentage of passing students rather than on the quality of teaching/learning. In addition, moving from an annual system to a semestrial system that permits students to pass to the following level with debts is often conflicting and imposes an individualized management of students (Sarnou *et al.*, 2012), and this represents an additional administrative burden. Furthermore programming the retake exam shortly after the semester exams leads many teachers to question the validity of such exams.

6- Difficulty of employability of graduates: the LMD system was thought to find a solution to the growing numbers of students by offering three levels of instruction and by sending most graduates at Licence level to the job market, but there seems to be no coordination between university and the public service, which lead students to put into question the objectives of their studies.

2.5.2. EFL Teaching/Learning: Focus on the English department of Blida University

The LMD system has been adopted and implemented in the English department in Blida University since the academic year 2007-2008. At that time the enrollment in the LMD system was voluntary: the students could choose to enroll with the LMD or the classical scheme. By the beginning of the following year (2008-2009) the LMD system was compulsory for all students majoring in English, as the classical system began to be gradually eradicated at a national level. By the academic year 2009-2010, some modifications were introduced to improve the initial Licence offer of 2007. The new offer lasted from 2009 to 2014, as the common framework for first and second year LMD which was made official since 2013 was implemented only in 2014 (see Appendix G). The objectives of the 2009 offer were:

1- Teach learners how to communicate orally and in writing in a communicatively expressive English
2- Endow students with linguistic tools that would enable them to analyse and synthesise various documents
3- Introduce notions of culture and civilisation throughout texts in English
4- Prepare students methodologically in order to adhere to scientific research and autonomy *:*

(Translated from *Offre de Formation LMD, USDB*, 2009: 6)

By 2011, most teachers in the department of English (72) were part-time teachers holding a Licence degree in English; there were 13 permanent teachers (with one doctor and 12 magister holders). This big number of part-time teachers renders collaboration difficult if not impossible because these teachers generally work during one or two days a week and have other activities outside the department. This in turn prevents these teachers from being formed and guided regularly by more experienced teachers during collaboration sessions. In addition, there is not always agreement over what to teach and how to teach; therefore, there were differences in the programmes administered by teachers in the same subject-

matter. On the other hand, in the academic year 2011-2012; the department of English joined the other departments of the Faculty of Arts and Human Sciences in their new site (Pole El-Affroun); though the rooms were bigger and cleaner, there were no phonetic laboratory, and no Internet facilities. The most important pedagogic and administrative challenge was to take in charge 850 new students. The simplest remark is that this number of students _ with the insufficient number of teachers_ makes up a highly unbalanced student-teacher ratio.

Learners in the department of English, for their part, enter university with a BAC certificate. They are oriented for majoring in EFL studies on the basis of their scores obtained in the BAC exam. Most students come from literary and foreign languages stream (to a lesser degree from other streams), with an overall learning experience in EFL of seven years. As has been explained earlier (under 2.4.3. and 2.5.1.), by the end of high-school level, learners enter university with poor linguistic and thinking abilities and inadequate learning strategies so necessary to pursue higher level education, causing them to struggle with their new studies.

The syllabus for English was designed as an LMD training offer in 2007 and modified in 2009, but the subject-matter programmes were mostly reproducing those in the classic system; little up-dating was undertaken up to 2012. The following tables illustrate the contents of the EFL syllabus for the Licence 6 semesters, with 13 subject-matters in every semester. The different tables are taken from “Offre de Formation LMD, Anglais, USDB, 2009):

First Year Syllabus

Table2.3. Semester 1 and 2 EFL syllabus

Unités d'Enseignement (UE) (Teaching Units)	**TL / Semester (14 à 16 Weeks)**	**TL/Week**	**Coef**	**Credits**
UE Fondamentales				
UEF 1				
Listening	*24 hs*	*2hs*	*2*	*3*
Speaking	*30 hs*	*3hs*	*2*	*3*
Writing	*30 hs*	*3hs*	*2*	*3*
Reading	*30 hs*	*3hs*	*2*	*3*
UEF 2				
Morphosyntax	*20 hs*	*1h30*	*2*	*3*
Phonetics	*20 hs*	*1h30*	*2*	*3*
Brit-Amer Civilisation	*20 hs*	*1h30*	*2*	*2*
Brit-Amer Literature	*20 hs*	*1h30*	*2*	*2*
Initiation to Linguistics	*20 hs*	*1h30*	*2*	*2*
UE Méthodologie				
UEM 1				
Research Methodology	*20h*	*1h30*	*2*	*3*
UE Découverte				
UED 1				
ESP	*20hs*	*1h30*	*1*	*2*
UE Transversale				
UE T 1				
Foreign Language 2 (French)	*20hs*	*1h30*	*1*	*1*
ICTs	*24 hs*	*2hs*	*1*	*1*
TOTAL SEMESTER 1	*294 hs*	*25hs*	*23*	*30*

Second Year Syllabus
Table2.4. Semester 3 and 4 EFL syllabus

Unités d'Enseignement (Teaching units)	**TL/Semester (14 à 16 weeks)**	**TL/Week**	**Coef**	**Credits**
UE Fondamentales				
UEF 1				
Speaking	*24 hs*	*2hs*	*2*	*3*
Writing	*40 hs*	*4hs*	*2*	*3*
Listening	*24 hs*	*2hs*	*2*	*2*
Morphosntaxe	*20 hs*	*1h30*	*2*	*2*
Lexico-semantics	*20 hs*	*1h30*		*2*
UEF 2				
Phonetics	*20 hs*	*1h30*	*2*	*3*
Linguistics	*20 hs*	*1h30*	*2*	*3*
Brit-Amer Civilisation	*20 hs*	*1h30*	*2*	*3*
Brit-Amer Literature	*20 hs*	*1h30*	*2*	*3*
UE Méthodologie				
UEM 1				
Research Methodology	*20h*	*1h30*	*2*	*3*
UE Découverte				
UED 1				
Themes et Versions	*20hs*	*1h30*	*1*	*1*
UE Transversale				
UE T 1				
Foreign Language 2 (ITALIAN)	*20hs*	*1h30*	*1*	*1*
Media Studies	*20 hs*	*1h30*	*1*	*1*
TOTAL SEMESTER 3	*288 hs*	*23hs*	*23*	*30*

Third Year Syllabus
Table2.5. Semester 5 and EFL syllabus

Unités d'Enseignement (Teaching units)	**TL/Semester (14 à 16 weeks)**	**TL/Week**	**Coef**	**Credits**
UE Fondamentales				
UEF 1				
Applied Lingusitics	*20 hs*	*1h30*	*2*	*2*
English Literature	*20 hs*	*1h30*	*2*	*3*
American Literature	*20 hs*	*1h30*	*2*	*3*
English Civilisation	*20 hs*	*1h30*	*2*	*3*
American Civilisation	*20 hs*	*1h30*	*2*	*3*
African Literature	*20 hs*	*1h30*	*2*	*2*
UEF 2				
Didactics	*20 hs*	*1h30*	*2*	*2*
Psychopedagogy	*20 hs*	*1h30*	*2*	*2*
UE Méthodologie				
UEM 1				
Research Methodology	*20hs*	*1h30*	*2*	*3*
UEM 2				
Pedagogic Project	*24hs*	*2hs*	*2*	*3*
UE Découverte				
UED 1				
Practical Training	*24hs*	*4hs*	*2*	*2*
UE Transversale				
UE T 1				
Communication	*20 hs*	*1h30*	*1*	*1*
Theatre	*24hs*	*2hs*	*1*	*1*
TOTAL SEMESTER 5	*288 hs*	*23hs*	*24*	*30*

The data in these tables well indicate the overloaded programme with so many subject-matters in the different teaching units. In addition, the four skills are taught in a disconnected way; no integration of skills was yet adopted. Though the subject-matters seem interesting and promising to provide a good source for background knowledge for students, they represent at the same time a strong challenge for them. Furthermore, some subject-matters which have never been taught before (such as Methodology, ESP, and Media studies); these represent a challenge for the teachers themselves because they need more than a detailed programme; they need to be formed how to teach them. The tables also reveal the place of writing and technology in the EFL syllabus.

2.5.3. The Place of Writing, Metacognition, and Technology

Writing as a subject-matter is part of the EFL syllabus only for first and second year levels, with a time load of 3 hours/a week. It may be noticed that in that teaching offer, a similar coefficient (2) and credits-value (3) is given to most subject-matters which does not guide learners to perceive the importance of certain subject-matters over other 'fundamental' ones. In addition, writing is not part of third year level despite its extreme necessity at all levels of instruction.

The official course offers an outline for the two semesters and expresses general objectives but in fact teachers are free to opt for their own methodology, lesson organization, teaching steps, and type and number of practice activities. Therefore, each teacher is different, with their own teaching (and learning) experience, professional competence and sense of initiative with students' needs. This 'individual' teaching (a side-effect of the lack of collaboration between teachers) results in students with different input and output, and thus varying competency levels.

The overall aim of the written expression course is to prepare students for written assignments in the different subject-matters, in the form of homework, mid-term tests, end-of-semesters exams and project work. Developing competence in the writing skill is also considered as a requirement for success in writing in the following levels of study. The following table illustrates the writing programme for first and second year levels before 2009 and how it was modified (for the sake of improvement) after 2009.

First and second year writing programmes

	2007- 2009	**2009-2014**
First year	**1. Generating a paragraph** 1-1 Review of Grammar: tenses, mood, simple, complex, Compound Sentences 1-2 Emphasis on production of correct English sentences 1-3 Use of tenses and punctuation and construction of clauses 1-4 Presentation of work (margin, indentation, etc.) 1-5 Paragraphs writing (organizing a paragraph, plan, devices) 1.6 How to write an outline and an essay	**How to write a Paragraph** - sentence elements - phrases, clauses and sentences - the English paragraph - unity and coherence **How to write types of paragraph** - narrative paragraph -descriptive paragraph - cause/effect paragraph -comparison/contrast - examples paragraph - definition paragraph - argumentative paragraph
second year	**Development of an essay, writing techniques, planning and organizing an essay** How to write a paper Polishing up style Getting rid of redundancies Abolishing wordiness Revision of perpetual weaknesses Stress the avoiding of slogans and 'clichés' Emphasizing personal thinking **Term project** Students will produce an essay on a topic that interest them personally	**How to write an essay** - How to write an outline - How to write a proper introduction - How to write a thesis statement - How to write a conclusion **Types of essays**: - the narrative the descriptive - the cause/effect - the comparison/ contrast - the argumentative **Language focus** - achieving parallel structure - avoiding fragments - avoiding wordiness

By the end of the first year, the students will have acquired the basic skills to express themselves in the written mode, moving from different types of sentences to different types of paragraphs, while in the second year, students expand their writing competence to the essay level. First year students are guided to produce short text types according to the rules and conventions of academic writing English: correct use of grammatical rules and sentence patterns, meaningful use of vocabulary, unity, coherence, and acceptable layout and mechanics. The first semester focuses on content organization by exemplifying paragraph format, outlining, and sentence types while the second semester explores different rhetorical modes. This kind of programme strikingly differs from the language-oriented writing the students were used to in pre-university levels, which focused on consolidating grammatical and lexical items developed in each textbook unit. On the other hand, at university level, metacognition instruction is not explicit; it has no official status in the EFL or writing programme. This is so despite the fact LMD objectives are to develop linguistic, and thinking, and methodological abilities in order to produce autonomous learners.

As for technology, the students naturally resort to ICTs whenever they have an assignment, for communication or just for fun, and the LMD system gives importance to the use of technology since ICTs is a subject-matter as part of the *Discovery* Unit, at least at first year level. Nevertheless, the lack of Internet facilities in the new pole reduced the ICTs subject-matter to be training in the basic uses of a computer (for example, creating and storing data in different kinds of files). Moreover, an e-learning platform was set up at the level of Blida University, within a national e-learning programme (Appendix H), in which any teacher can post lessons and have their own space for connection with their students. They can not only post lessons and activities but also lead synchronous and asynchronous links with their students. This represents a realization of one of the main principles of the LMD system. Many departments profited from this initiative, but not the department of English. This is partly due to the lack of Internet connectivity in the new university site, but it may also relate to the teachers' lack of training or even lack of motivation to make of technology part of their teaching practices.

2.5.4. Identifying ELT Problem Areas at University Level

In order to have a clear idea about learning and teaching difficulties, the researcher proceeded with an investigative study, based on semi-structured interviews conducted with teachers and students in the academic year 2009-2010 (that is during the third year of the implementation of the LMD system in Blida University). The interviews aimed at assessing LMD students' learning and writing strategies, and so eliciting from them problem areas in EFL teaching/learning, with a focus on writing.

2.5.4.1. Interview With Students

The informants were LMD students distributed as follows: 10 in the first year level, 7 in the second year level and 15 in the third year level (they were mostly from third year level because they had a longer experience). The questions centred on specific themes:

1- Attitudes and motivation towards EFL
2- Points of view and Attitudes towards LMD system
3- Self-assessment of own level and difficulties in EFL
4- Self-assessment of own level and difficulties in writing

The interview answers with the three level informants revealed the following:

1- Most students held positive attitudes towards EFL. In addition, they were aware of its national and international importance and are highly motivated to learn this language.
2- Most respondents deliberately chose to enroll with the LMD system because they were attracted by the short period of studies (3 years for the Licence degree), the interesting programmes, and the possibility to go on further studies abroad. A minotrity of students admitted that their enrollment was imposed by the administration or by parents. Nevertheless, the majority of students said they knew little about the LMD system because, according to them, the administration did not explain this system in seminars or conferences; others

underlined the fact that this system was still new and that the laws kept changing.

3- Most informants reported that their learning experience with EFL was acceptable, explaining that they were still striving to improve their proficiency level because their marks were not good all the time and in all modules. They also noted the big number and difficulty of modules in addition to research works; with at the same time a lack in materials which would enable interaction with foreigners. They also found the transition from high school to university particularly difficult. Moreover, they believed their teachers did not know much about the LMD and that they did not consider learners' needs. Consequently most of the reported learning difficulties related to
   - the big number of modules, which left little time for revision
   - the difficulty of project work
   - the big number of students in each group
   - the lack of teaching materials and media
   - the teaching quality
   - the lack of communication between, students, teachers, and the administration

4- As for writing, the majority of students believed they were of average level because their results were not satisfactory. They found this skill difficult and too demanding, but they admitted they did not practise much. Others explained that they were unable to express their ideas in written form, and that they were not used to writing in high school. They also linked their weakness to the level of their teachers who evoked uninteresting topics. Their difficulties in this skill concerned mostly arranging ideas in a plan, the influence of L1 and FL1 (Arabic and French), the bad mastery of grammar, poor vocabulary, weak style, and unawareness of rhetorical modes.

2.5.4.2. Interview With Teachers

The informants were 8 permanent and 8 part-time teachers at the department of English. Their teaching experience oscillated between 1 and 26 years. The interview tackled specific topics to elicit information that would complete in line with the students' interview:

1- Describing their teaching methodology
2- Difficulties encountered with students (linguistic, pedagogic, or other)
3- Assessment of LMD students learning performance
4- Weaknesses observed in LMD students' writing performance
5- Evaluation of LMD system in terms of objectives, and pedagogic/ administrative conditions of implementation;

The interview answers revealed the following:

1- In terms of teaching methodology, most teachers reported class discussion, lecturing, discussing handouts, and to a lesser extent dictation. In addition they mentioned pair and group work in class, homework assignments, and making students present their research work. They believed the skills students needed to master most were making notes while reading and taking notes effectively during lectures, to a lesser extent writing essays or summaries. The teachers also noted they gave homework assignment almost after each lesson in order to keep the students active and concentrated, but the number of students prevented teachers from regularly correcting and providing feedback to learners. When correcting exams, the teachers considered first relevance of the topic, then correctness of the language, and last semantic coherence; no teacher made allusion to originality.

2- The main difficulties the teachers encountered with students were, in decreasing order: poor background knowledge, large groups, unsatisfactory language proficiency, lack of readiness for university instruction, and lack of motivation.

3- The teachers believed the level of LMD students was rather average despite the rich instruction and programme they were exposed to. They explained that the causes were mainly the big number of students, the big number of modules and the lack of the necessary teaching conditions. In addition, they noticed a slight progress in students' proficiency in EFL as they were convinced the LMD formation had no sound basis, and that learners did not devote enough efforts to improve.

4- As for the students' writing weaknesses, the teachers mostly noted an ill mastery of grammar, poor vocabulary, L1 and FL1 influence, weak style, lack of originality, and writing in an informal way. They added that the time devoted for teaching this module was not enough.

5- The LMD objectives were not met according to many considerations: mostly teacher selection and training, type of instruction, availability of materials and media, and even administrative facilities. Most teachers explained that the LMD objectives were not respected because the teachers were not formed for the LMD system; in addition, the type of modules with their respective contents and time load were not considering learners' real level and needs.

2.5.4.3. Problem Areas

From what has been discussed so far, it seems relevant to deduce some problem areas that should be taken into consideration; these have been classified into categories:

Teachers

- The lack of qualified teachers has certainly an impact on the quality of teaching, learning and on students' development of the different skills and competences.
- The lack of training in the LMD system teaching and evaluation principles drives teachers to adopt traditional lecture-based teaching and language accuracy-oriented assessment methods that lead to contradictions between the syllabus content and evaluation practices.

- Most teachers often adopt approaches and classroom practices that leave little room for student involvement and responsibility, though modern education has changed the role of a teacher from a fount of knowledge to a facilitator of learning.
- Large groups prevent teachers from assigning regular homework for students, and from considering learners' different abilities and learning styles, or even from providing them with individual feedback in the form of conferences.

Learners

- The students' weaknesses are the result of a huge gap between pre-university and university instructions in terms of principles, methodology and objectives.
- The students enter university level with poor linguistic and learning skills; they need to be taught how to move from passive pre-university instruction to responsible and autonomous university instruction.
- Writing instruction in pre-university levels does not prepare learners adequately for university studies requirements. This causes their frustration once confronted to formal written assignments. Therefore, first year students need to be introduced to the writing process before moving to writing conventions and rhetorical modes.
- Most if not all students are unaware of the LMD system rules, principles and objectives; this weighs heavily on their learning outcomes.

- The LMD syllabuses overloaded by subject-matters lead learners to dispersed concentration and efforts.
- Poor infrastructure, and the absence of an Internet laboratory for students prevents the integration of ICTs in their learning and research practices. In addition, class size, the big number of modules, additionally the insufficient time load for certain subject-matters have also an impact on the students' learning achievement.

Writing

- The writing lesson and examination seem to be language-based and also accuracy-oriented since teachers focus more on linguistic accuracy (grammar, vocabulary and mechanics) than on composing skills. Besides, teachers' methodology at university level is not based on students' actual abilities and prospective needs.

- The time load devoted for teaching writing as a subject-matter is insufficient to foster the necessary skills into learners.

- The students seem not to understand the relatedness of all subject-matters in the syllabus, more precisely the link between writing and other subject-matters.

- Assigning students research work while they were struggling with sentence and paragraph level, and yet preventing plagiarism is rather unfair and thoughtless.

The following table represents first year students' writing abilities, lacks and needs by the time they enter university level (adapted from (Ourghi, 2002: 42)):

	Students' Entrance Level
Abilities	-production of short texts -use of cohesive devices and discourse -organising connectors
Lacks	-unawareness of writing sub-skills -lack of readership -freewriting -poor composing strategies
Needs	-reinforcing linguistic accuracy at sentence level -reinforcing mechanics through practice -introduction of, and intensive practice in, composing strategies (prewriting, writing, and rewriting) -providing practice in different rhetorical modes -varying writing assignments (controlled, guided, and free)

Metacognition

- University level instruction does not yet consider learner cognitive and metacognitive competences: students still rely on their teachers; they do not set goals or objectives for their studies and do not know how to take in charge their own studies.
- The EFL students' weak composing competence and writing difficulties in general are due to a deficiency in their cognitive and metacognitive knowledge.

- The discrepancy between pre-university and university instructions weighs heavily on students and uncovers the lack of metacognitive formation pre-requisite for learners to pursue their studies autonomously at university level

Technology

- ICTs which are supposed to offer individualization of learning are lacking and prevent students from achieving self-regulated learning.
- The lack of necessary equipment and Internet connectivity makes the integration of ICTs to EFL teaching/learning extremely difficult, if not impossible.

2.6. Conclusion

The second chapter has tried to give a systemic picture of the Algerian educational context, with a particular focus on EFL teaching/learning. This chapter has also shed light on the place writing, metacognition and technology have in ELT objectives as expressed by policy makers for the different educational levels. There seems to be a discrepancy between the different educational levels as to the teaching of the writing skill. In addition, metacognition as a learning and a writing strategy has been neglected by syllabus designers and teachers. Furthermore, technology is valued in EFL teaching/learning only at theoretical level; in reality it plays a little role in the teaching/learning process. This chapter has also portrayed the LMD system with its rules, principles and objectives. It has come to a partial conclusion that failure in writing is linked to failure in EFL teaching/learning in general, and

that there is a paradox between pre-university and university instructions. Moreover, the learning environment does not encourage learners from evolving and devoting necessary efforts. As a result, university students display a low performance level in English in general and in writing in particular, despite an accumulated pre-university EFL learning experience of seven years. These students equally lack the necessary thinking and study skills that would enable them to function successfully as students.

It may be concluded that the writing syllabus at University must consider learners' real abilities, learning styles and strategies; and even learning and professional goals. As a result, it becomes imperative to devise a teaching model that responds to university students' needs to progress and excel in EFL writing and learning. This will be explained in the following chapter.

CHAPTER THREE

RESEARCH DESIGN AND PROCEDURE

CHAPTER THREE

RESEARCH DESIGN AND PROCEDURE

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A/ Questionnaires

B/ Scores Analysis

3.3. Conclusion

3.1. Introduction

Though there have been prominent works that have investigated the role of metacognitive awareness in the improvement of writing performance (kasper, 1997; Xiao, 2007; and Zhang, 2010), there is a rising necessity to investigate this topic in the Algerian context, and more specifically in the department of English. For this objective, the researcher designed research methodology that could lead to concrete results and mainly to answers to the major research questions and hypotheses. Writing performance could be improved only if learners were trained into thinking and reflecting about their own learning process, mainly during writing. Furthermore, evidence calls for an explicit teaching of writing strategies in an informed framework that values learning strategies (through CALLA), in conjunction with a thoughtful implementation of technology into EFL university instruction (through CAW). Accordingly, the present chapter aims at giving a clear picture of the research design and the investigative procedures that were carried out with a purpose of implementing the suggested instructional framework and evaluating the extent of its validity through different research instruments.

3.2. Research Methodology Description

The present research was experimental in nature and required the use of different research tools. The analysis and pedagogic interpretation of the results obtained from research instruments also required different techniques. The following section of this chapter provides a detailed description of subjects' profile, the steps and mechanisms of the experimental study and an explanation of the choice of the different research instruments as well as the different analytical procedures.

3.2.1. Sample Population

The research subjects were two groups form the first-year LMD level: an experimental group (henceforth EXP) and a control group (henceforth CTR). Each of the two groups counted 56 enrolled students, but for a matter of practical analysis a sample of 30 students (that is 53%) was randomly selected from each group as representative of the whole group, and of the whole first-year LMD level, if any generalization could be proved. To note that the first-year LMD overall population amounted to approximately 850 students, organized into 12 groups.

3.2.1.1. Choice of the Sample

To begin with, there were two levels concerned with the study of writing in the department of English, at Blida University **:** first and second year levels; both could have been subject in the present experiment. However, since the research aimed at 'developing metacognitive awareness in writing', such an objective required much effort and training, and would have better results if begun at the first level and improved and enriched in subsequent level(s). In addition, if learners could promote their writing and learning metacognitive strategies at a basic level, it was hoped that they could not only improve in writing but also transfer writing competence to other aspects of learning and so improve in EFL in general. All these goals required then the implementation of this instruction in earlier levels, and the consideration of their progress during their university formation. For these reasons, the first year level was believed to be most appropriate for this research.

In addition, in order to ensure both internal and external validity of the research, the study sample was carefully selected. Both EXP and CTR groups, equal in size, belonged to the same level of instruction and study in the same department. In addition, as the administration took in charge the enrollment of first year students into groups, in an arbitrary way without selection conditions, the two groups of the sample were therefore randomly formed and randomly chosen for the experimental study. Both groups had writing sessions twice a week; each session lasted 1h30. The two groups were informed that the questionnaires and the interviews aimed at

finding out their writing and learning difficulties in order to devise appropriate solutions. In other words, neither group knew they were part in this experiment so that this would not influence their answers or performances. The experimental group received the metacognitive instruction the researcher conducted, while the control group received the usual type of writing instruction (generally a 'theory-practice' instruction was most adopted by teachers of writing in the English department). The CTR group was taught by another teacher (to avoid bias in the interpretation of results and ensure the reliability of the research instruments) who cooperated in the study. In order to provide even more objective results, the teacher in charge of CTR was chosen in a way to have roughly similar qualifications as the researcher in terms of degree (Magister in applied Linguistics), professional status (Permanent teacher), and career experience (she, too, was for a number of years a teacher in high school then at university level). In fact, all the teachers in the department followed the same writing programme and assigned the same semestrial exam topics. The difference lied mainly in the type of teaching methodology adopted by every teacher, in terms of writing lesson administration, type and frequency of homework and also of feedback. The contribution of the teacher of CTR consisted in administering and collecting the questionnaires at the beginning and at the end of the semester. She also submitted the marks of her group in tests and exams.

3.2.1.2. Profile of the Informants

On the basis of the answers provided by informants in the questionnaire and in the pre-instruction interview, we were able to draw the profile of the informants in both groups. All the students were aged from 18 to 21, were Baccalaureate holders, and most of them accumulated an EFL learning experience that ranged from 7 to 9 years (there were some students who had retaken courses (repeated the years) in Middle- or in Secondary-School levels). This could guide to estimate their university entrance level in English from low to high-intermediate. The questionnaire also showed the learning streams they belonged to at secondary school level. Most of them (63%) came from the "Foreign Languages" branch in

which English is taught as a major subject-matter, together with Arabic, French, and third foreign language: German or Spanish. Other students (16%) came from 'Literature and Philosophy 'stream, (15%) from the Scientific stream' and only (3%) from Economy stream.

All the informants had Arabic as their mother tongue or national language. During the three levels of pre-university instruction: primary-, middle- and secondary-schools, the learners were introduced to different languages and so they accumulated a number of years of experience in many languages: most importantly in French, for 10 years, English for 7 years and in a lesser way in Spanish or German for 2 years.

All students also expressed their positive attitude towards the English language. Most of them deliberately chose EFL as their major at university level because they perceived English as an international language that needed to be learned for professional and economic reasons. Others had aspirations for travelling or even for studying abroad. On the other hand, most students admitted they had little knowledge about the LMD scheme in terms of rules, objectives or relationship with the job prospects. They reported that it was a new and complicated system or programme, and that they had not been informed enough about it. Very few informants in both samples expressed positive views about the LMD scheme as they believed it could open the door to interesting job careers. The profile of the informants in both samples is summarized in the following table:

Table3.1. Profile of the informants in EXP and CTR groups

<table>
<tr><th>Variables</th><th>Details</th></tr>
<tr><td><u>Personal:</u>
Gender

Age</td><td>
<table>
<tr><th></th><th>EXP</th><th>CTR</th></tr>
<tr><td>male</td><td>8</td><td>4</td></tr>
<tr><td>female</td><td>22</td><td>26</td></tr>
<tr><td>total number</td><td>30</td><td>30</td></tr>
</table>
18-21years old
</td></tr>
<tr><td><u>Educational:</u>
Pre-University language education background

Secondary school streams

Estimated proficiency level in EFL</td><td>L1: Standard Arabic (13 years)
FL1: French (11 years)
FL2: English (7 years)
FL3: German/Spanish (2 years for Foreign Languages Stream and 0 year for the other streams)

Foreign Languages (63%)
Literature and Philosophy (16%)
Natural Sciences (15%)
Economy (3%)

Low intermediate to High intermediate</td></tr>
<tr><td><u>Motivation and attitude:</u>

Knowledge about educational system (LMD) objectives and perspectives

Attitude towards the LMD scheme</td><td>- highly positive attitude
- mostly deliberate choice of EFL as University major

very weak

<table>
<tr><th>Positive</th><th>Negative</th></tr>
<tr><td>14%</td><td>86%</td></tr>
</table>
</td></tr>
</table>

3.2.2. Research Design

The research was an experimental study conducted during the second semester of the academic year (2011-2012), at the level of the Department of English, at Blida University, El-Affroun Pole (now named Lounici Ali University).

The success of any research study relies on reducing threats to internal and external validity of the research. According to (Hatch and Lazaraton, 1991: 33-42), threats to internal validity include subject selection (random), maturation (it is related to the effect of time), history (extra activities done by the learners), instrumentation (validity and consistency of test instruments and data gathering procedure), task direction (clarity of instructions), adequate data base (frequency and validity of the tests), and test effect (a pretest can influence students' performance). External validity requires first internal validity; it permits generalization of results and so leads to inferential claims. One of the main tenets of external validity is the appropriate selection of the sample in a way that fits the type of research and represents the whole group for which the generalization is intended. As far as this research is concerned, the researcher ensured the randomization of the two samples and opted for an experimental study which involved two groups: an experimental group and a control group.

Experimental studies are described by (Hatch and Lazaraton, 1991) as 'true experimental studies' because not only they resort to a random selection of students and random assignment of students to control and experimental groups, but also they assess the differences between the groups before the beginning of the experiment. As a result, they provide a basis for considering the growth in learners' performance over a period of time, and eventually permit the evaluation of the effect of the *treatment* by the end of the experiment. Experimental studies are also known as hypothesis-testing research studies (Kothari, 2004) since their purpose is to test a research hypothesis through the manipulation of the independent variable (in our case, the metacognitive instruction). In this kind of experiment a group is exposed to usual conditions and is called a 'control group' (CTR), and another group is exposed to a special type of instruction or 'treatment', and is called the

‘experimental group’ (EXP). The analyses of the results yielded by the different research instruments converge towards determining causality between the research variables. In other words, they show whether the independent variable has an effect on the dependent variables of the research. The advantage of such a design is that it is simple and randomizes the differences among the sample items. But the limitation of it is that it does not control the extraneous variables such as the individual differences among those conducting the treatments (the teachers); consequently, the result of the experiment may not reveal a real picture.

The aim of the present experiment was to judge the effectiveness of a treatment and its impact on the EXP group performance, in comparison with the CTR group which did not receive the treatment. In order to render the comparison possible, both groups were subject to a pretest and posttest evaluation; the pretest would serve ‘a base-line or norm’ (Seliger and Shohamy, 1989). In more concrete terms, the two groups were first evaluated on equal basis in what concerns their writing and learning awareness, and in terms of their proficiency level in both writing and in EFL. For this reason, both groups were required to complete the questionnaire and take part in the different interviews, before and after the treatment. Accordingly, the research design can be illustrated by the following diagram:

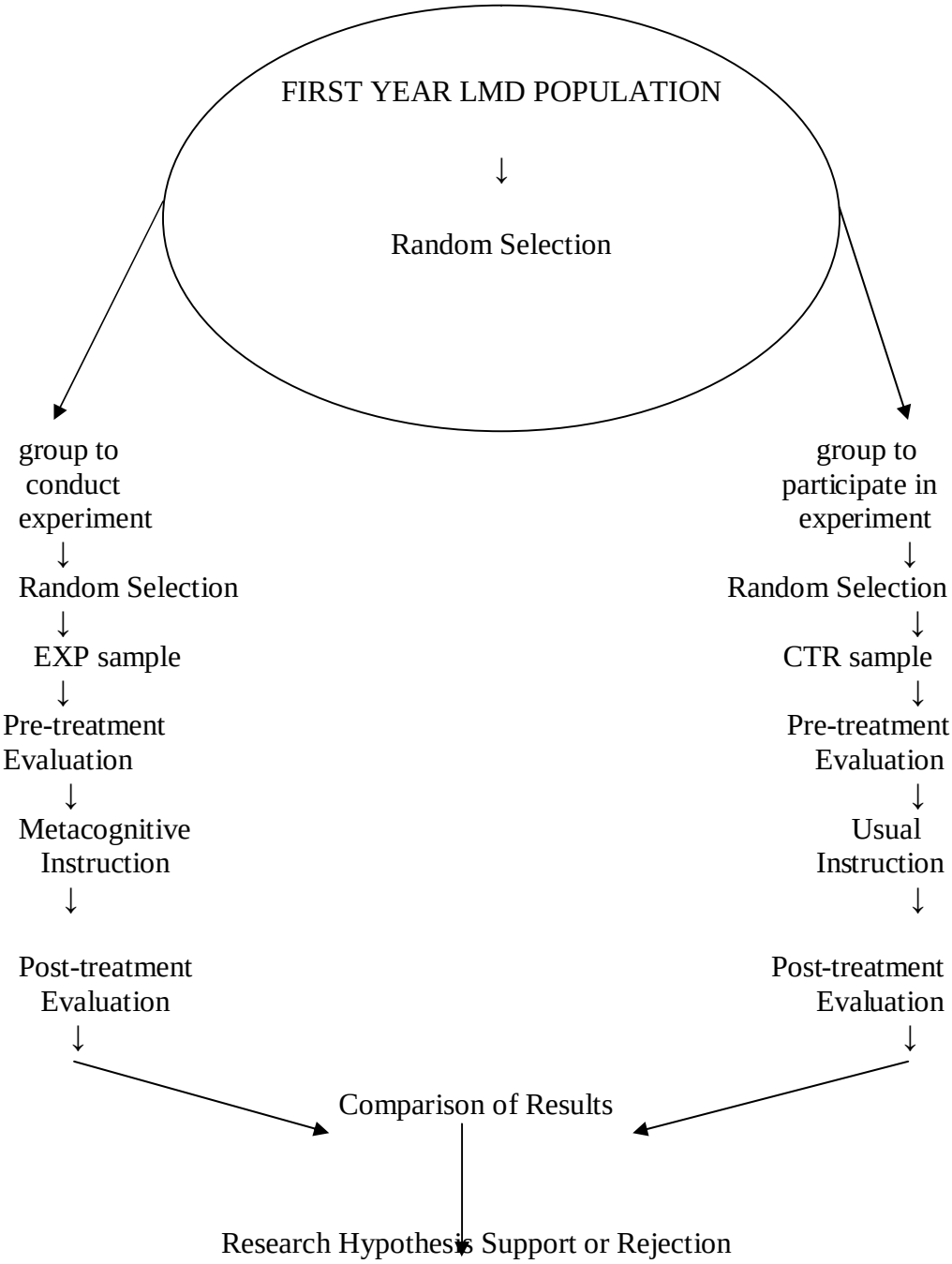

Figure3.1. Research Design

In order to put this research design into application, the researcher devised a number of research instruments believed appropriate to undergo the pre-treatment and post-treatment evaluation, the results comparison and so the confirmation (or not) of the research hypotheses.

3.2.3. Research Instruments

The validity, reliability, and even success of any research rely on a thoughtful selection of research instruments. The difficulty of the choice arises mainly when the focus of research about a language skill such as writing targets not the perceived concrete output, but the hidden process that generates this output. The challenge is even greater when we consider the fact that the learners themselves, as the core participants of research, know very little about this process, or at least do not have the specialized terminology to explain it. To meet this challenge, researchers resort to introspective and retrospective methods for data collection so; in other words, 'looking inward' and 'looking outward' (Wallace, 1998). Introspection allows learners to reflect on their thoughts, feelings, and reasoning process while performing the assigned tasks. Retrospection, on the other hand, gives room for learners for self-expression some time after the assigned tasks are completed. In order to collect data introspectively and retrospectively, the researcher preferred the use of different research instruments that would investigate the research topic from different angles and so lead to a quantitative and qualitative analyses of the studied topic.

The triangulation process, then, consisted of different kinds of research tools: Questionnaires, Interviews, and Scores analysis. The research instruments were analysed alongside the implementation of the Metacognitive Instruction together with the Teaching Platform. These research tools had in fact a double aim: investigating introspectively and retrospectively the development of metacognitive awareness in writing and investigating its effect on learning. By the same token, learners' attention would be drawn to the different aspects involved in writing competence, and so they would be able to reflect on their actual and 'should-be'

writing competence and learning strategies too. Furthermore, every research instrument gave an opportunity for the students for self-expression in what concerned their apprehensions and aspirations for improvement in writing and in EFL learning. The use of different procedures would yield rich and comprehensive data which in turn provide an expanded and global picture of the phenomenon (Seliger and Shohamy, 1989: 160). In what follows, every research tool is described in detail.

3.2.3.1. Questionnaires

One of the most popular methods for data collection in case of large-scale surveys is the questionnaire. Questionnaires provide a systematic way of collecting from respondents' information that can be quantified and/or interpreted. The information is retrospective in that students have time to reflect on what they usually do in a situation. The questionnaire is often considered as the heart of survey operation; therefore, it requires careful construction is terms of general form, question sequence and question formulation and wording (Kothari, 2004:101). It is also important to consider the limitations questionnaires often display. In this context, Wallace (1998) indicates that questionnaires can be subjective in that we cannot be quite sure of the respondents' answers; they can also be intrusive since they use up people's time; in addition, the nature of the sample can be not representative of the whole population.

The questionnaire in this research was destined for first-year LMD sample groups preparing a 'Licence' in EFL. More precisely, it was meant for EXP and CTR groups. It was administered twice for both groups during the second semester of the academic year 2011-2012, before and after the implementation of the instructional framework (thus there was a pre- instruction and then a post-instruction questionnaire); more precisely, by the beginning of January and by the beginning of June. The questionnaire was not administered by the beginning of the first semester due to the nature of the programme of writing designed for first-year LMD level: Students were introduced gradually to master sentence structure and mechanics before initiating them to paragraph writing by December. Therefore, the

researcher favoured to wait until the students had a rough picture of paragraph writing so that they could answer the different questions. In addition, this delay allowed them to evaluate their level and difficulties in the different modules. This instrument was aimed as a needs analysis or diagnosis tool. On the one side, it attempted to track over time students' development of their metacognitive awareness in writing. On the other side, it was used to depict learners' learning and writing difficulties. It was also used to evaluate the effect of the metacognitive instruction on the EXP group as opposed to that of CTR. The questionnaire was administered in the classroom to clarify the questions. It comprised 14 questions, divided into three main rubrics (Appendix I). Each rubric, then, explored a facet of the metacognitive knowledge to arrive at a complete image of the development of learners' metacognitive awareness in writing and its effect on learning:

Person knowledge concerned what learners knew about themselves as second language learners. It specifically had to do with their own language proficiency, aptitude, learning style, and their perceptions about their self-efficacy at doing certain learning/writing tasks (**questions 1-6).** It also related to learners' beliefs about themselves, about their own language proficiency, aptitude at doing certain learning/writing tasks. The main tenet of this type of questions is that one's beliefs about himself as a learner may facilitate or impede performance in learning situations (Flavel, 1979). In this part, the researcher inquired about the students' learning difficulties at large, before moving to their attitude about writing in English, and the degree of importance they perceive in writing. It also required students to estimate their level both in EFL and in writing. This part ended with a question leading informants to self-evaluate their confidence at performing certain tasks related to writing.

Task knowledge referred to what learners thought about the purpose and importance of the tasks of second language learning, and the required skills to fulfill the tasks **(questions 7-9)**. This part requested learners to identify the importance of given tasks, and the strategies needed to perform successfully a certain task.

Strategic knowledge concerned what learners believed about how best to learn a second or foreign language, and their knowledge of types and usefulness of language learning strategies (**questions 10-14).** It implicated learners in identifying goals and selecting cognitive processes to achieve their goals. In more concrete terms, it required informants to reflect on their own learning/writing strategies.

The questions were of different and complementary types:

Close-ended questions: in which the learners were asked to choose one or more answers from a list of given alternatives. They were of three main types: dichotomous, multiple-choice and grading questions. *Dichotomous* questions required a (yes/no) answer, while *Multiple choice* questions offered more than two alternatives for selection. In *Scale* questions, the respondents circled or ticked in the answer that corresponded to the degree of their approval to the statement(s) in the question.

Open-ended questions: in which learners were asked to provide a full answer to the question, using their own words.

Every type of question had its own limitations: closed questions tended rather to 'impose' a certain kind of answers on respondents, while open questions were difficult to handle because they required interpretation and could not avoid the respondents' bias. Nevertheless, the fact of varying the questions gave more or less a balance to the overall structure of the questionnaire. The results of the four questionnaires (two for each group under study) were analysed and compared for each group separately and then cross-compared. A synthesis of the results could be done by combining the results of the different research tools to arrive to a plausible conclusion.

3.2.3.2. Interviews

The interview is another qualitative research instrument which gives teachers and students an opportunity to express themselves freely and feed into the lacks that questionnaires may display. In fact, most researchers consider questionnaires and interviews as complementary research tools; in addition, both

are subject to similar limitations (Wallace, 1998). Interviews can be classified according to their degree of formality: structured, semi-structured, and unstructured or free interviews (Nunan, 1992). While the structured interview is made up of questions that are strictly pre-planned, the unstructured interview is totally directed by the respondents' answers and the interviewer exerts little control. Between these two extremes, the semi-structured interview strikes a balance between control and freedom. The researcher has a clear purpose in mind, but shapes the interview according to the interviewee's answers. Because of different purposes in this research work, the researcher opted mainly for the semi-structured interviews, at different phases of the experimental study.

The researcher conducted three interviews at different steps of the experimental study (pre-, while- and post-instruction interviews). They were conducted with students to elicit self-reported data providing an insight into what these students thought of themselves as writers and as learners, and how they (at least the EXP group) reacted to the suggested instructional framework. Each of the three interviews had a specific purpose:

Interview 1 (Pre-instruction Interview) it was aimed to draw students' profile in both EXP and CTR groups, prior to the implementation of the teaching instruction. It was conducted before the beginning of the instruction with both groups (EXP and CTR) by the beginning of January. Its aim was to have a rough picture of both groups under study in terms of motivation, attitude, learning and writing awareness, and self evaluation.

Interview 2 (While-instruction Interview) was conducted with the EXP group only, in March. It was conducted after the first exam series. Its purpose was to examine students' writing and learning strategies during exams. The interview gave room for learners to reflect on themselves as writers and as learners.

Interview 3 (Post-instruction Interview) was conducted with the EXP group only, in June. It was conducted before the second exam series. It aimed at checking students' development of awareness in writing and learning.

These interviews were meant to elicit data that could not be obviously remarked through the other research tools. A point worth noting is that unstructured interviews were not considered separate research instruments, but rather as complementary investigative techniques during the implementation of the experimental instruction, as the subsequent chapters would clarify.

3.2.3.3. Scores Analysis

Most experimental researches involve informants in a 'pretest-posttest' procedure in order to diagnose learners' level before and after a treatment is administered. A pretest attempts to establish a base line of information which can be compared with the results on the dependent variable in the posttest (Seliger and Shohamy, 1989: 102). This is particularly the case of the present research in which both EXP and CTR groups were concerned with this pretest-posttest technique. The purpose was to evaluate the effectiveness of the implemented instruction on the EXP group and the lack of effect on the CTR group. In fact, it was not question of a scheduled test as much as it was the evaluation of students' academic achievement through the analysis of the scores of both study samples, by the end of the instruction. More precisely, the analysis strived to assess students' development in writing proficiency in relation to the suggested and adopted instructional framework. Furthermore, the semestrial averages of students were compared for each sample before and after the treatment to examine any possible change in EFL proficiency level. This choice had for objective to arrive to a more comprehensive and objective description of results and also to check the possible correlation between writing and learning achievement. Therefore, the researcher considered the change in academic achievement by making an estimation of the improvement (or not) in both writing and in EFL, for both samples under study, on the basis of their

results obtained in the first and then in the second semester, as illustrated in the following figure:

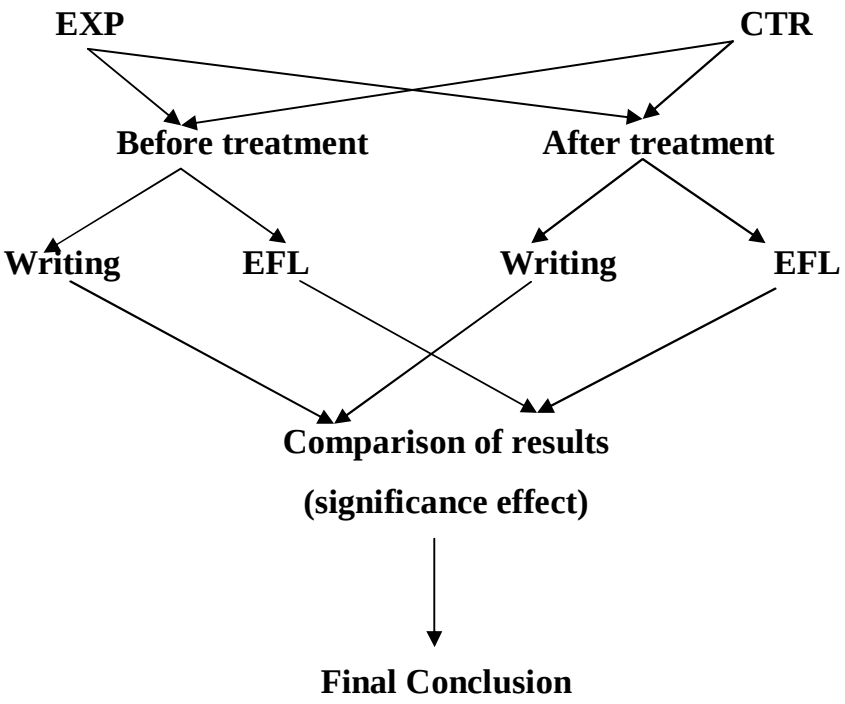

Figure 3.2. Scores Analysis Procedure

As the table shows, there were four evaluations (lists of scores) to enter in the analysis for each of the evaluation elements (writing and EFL). The difference in the scores between the two semesters represented the *gain* students would have attained. This gain was compared between the two sample groups to check the efficacy of the suggested instruction, and so lead to a confirmation (or not) of the research hypotheses.

3.2.4. Experimental Instructional Framework

Writing at university level involves a number of complex activities such as understanding, analyzing and memorizing a great number of information. It also requires students to select appropriate strategies to solve problems related to learning. All these activities involve metacognition and thus call for instruction into the development of metacognitive awareness to benefit learners' literacy skills. Therefore, there was a need to design a framework that responds to these requirements.

The implementation of the instructional framework required the application of a number of pedagogical steps in order to raise students' awareness of writing and learning. It also involved the integration of a computer-assisted writing instruction for the sake of supplementing the examined instruction with technology and so being able to evaluate the instruction under a different angle.

3.2.4.1. Metacognitive Awareness- Raising Instruction

It consisted in the explicit instruction of writing strategies in ways in which the teacher could plan, sequence, support, and assess writing and learning. To this end, the researcher made use of self-editing and peer-editing sheets in addition to scoring sheets (Appendices I, J, and K) to guide students through their learning awareness process. These sheets were at the beginning given by the teacher, and then negotiated between the teacher and learners. The suggested instruction was implemented in the second semester of 2011-2012. The teaching model was initially based on the teaching of learning and writing strategies by inspiration from CALLA principles. This instructional framework was later paired with computer-assisted writing (CAW) to provide a technological help to the framework.

Description of the Framework

Basically, the researcher adopted an exploratory approach while proceeding in the different phases of the instruction. This was so because the major emphasis in such studies is on the discovery of ideas and insights of learners while developing their awareness. At the same time, the research tools served to diagnose the efficacy of the different awareness-raising activities, and examine an association, if any, between metacognitive awareness in writing, self-regulation in writing and learning, and ultimately autonomy in learning. During the implementation of the treatment, the researcher relied on different techniques to gather data about the reaction to and the effect of the instruction on the EXP group. The instruction itself involved teaching writing strategies through different ways of presenting the lessons, different ways of responding and evaluating students' written products. The researcher also gave room for much discussion over the different lessons, between students and the teacher or between the students themselves through pair- and group-work. In addition, the researcher relied much on (frequent) unstructured interviewing and conferencing. Moreover, some of the students' homework or class work was handed back after filling in self-editing, peer-editing sheets or scoring sheets, and these represented an interesting corpus to investigate.

This variety in techniques for data collection concerning the application of the treatment was due to many reasons. The unstructured interview (as explained under 3.3.1.2.) is managed by the informants' responses, and so, it provides too an example of the exploratory trajectory of the instruction. Conferences are face-to-face discussions. Conferencing may happen between teachers and students in order to give individual guidance for learners, or they may be meetings between parents, teachers, and (sometimes) the student so as to discuss the student's progress and issues identified with how to enhance the educational experience for the student. Content analysis is believed, for its part, to be appropriate for the qualitative analysis of the students' products not in terms of accuracy and fluency, but in terms of degree of awareness achieved in each step of the instruction. Overall, the data gathered through the different techniques would function in a complementary way

with the remaining research tools in order to elicit organizational and pedagogical insights about the whole experiment, since as Nunan (1992:108) posits for such experiments '…collecting pre- and posttreatment test data is insufficient, that in addition, one requires process data on what actually goes on in the classrooms'. The next table sums up the procedure adopted for the instruction implementation and for the data collection throughout the suggested metacognitive instruction:

Implementation of the Instruction Procedure	**Data Collection procedure about the Instruction Effect**
- explicit teaching of writing strategies - individual, pair- and group-work - self- and peer-editing/evaluation	- unstructured interviews - conferencing - corpus analysis

3.2.4.2. Computer-Assisted Writing Instruction: The Teaching Platform

This research instrument, in fact, played the role of a *moderator variable* which mediates between the independent variable and the dependent variables (Hatch and Lazaraton, 1991). In other words, it was not a major independent variable working on its own. However, it contributed to the manipulation of the independent variable in that it extended its application to a beyond setting, in our case the university. This could add more complexity and depth to the instructional framework.

The researcher introduced computer-assisted writing instruction gradually. At a first step, the teacher gave an e-mail address where students could contact her. The students were invited to send their homework, questions, and writings via e-mail. The response to these e-mails was online or offline. The aim was to make students used to the computer as an aid to their learning process. Later, the researcher designed a teaching platform (a moodle), within a national e-learning programme at the level of Blida University, and under the guidance of the department of computing. The platform was meant to help learners write more

accurately, more confidently, and ultimately more autonomously. The students were thus invited to log on the moodle and become registered users. The software contained a collection of lessons supported by links to web-sites. It also enabled students to send their homework, questions, and personal writings, and contribute in the forum or chat rubrics as well. The aim was to acquaint students to use the computer as an aid to their learning process. The writing tasks developed from writing sentences to writing paragraphs. The focus was different each time: using the Internet for information collection, drafting, revising, and editing.

It is noteworthy that the teaching platform was integrated to the suggested teaching model only in May in order to check the efficacy of the metacognitive instruction before and after the introduction of the moodle. This could give way to plausible observations on both aspects in a separate way. Nevertheless, it is important to add that while using the e-learning platform, the server crashed and so all the posted lessons were lost and this caused delays in the use of the platform synchronously with the metacognitive instruction. We could have another account on the platform Claroline 1.11 with a new web address where the lessons were posted again and used by students. Yet, the new platform also crashed after a while, and this represented a real impediment to the aspired exploitation of the teaching platform.

3.2.5. Research Procedure

The objective of this study was to capture the development of students' metacognitive awareness in writing and its impact on writing and EFL learning achievement. The researcher investigated the role of metacognitive knowledge on the writing performance of EFL writers, by comparing learning achievement of students, before and after the implementation of metacognitive instruction. Therefore, three variables were considered in this research: as an independent variable, the metacognitive instruction; and as dependent variables, awareness in writing, awareness in learning, and academic success, as the following figure may illustrate:

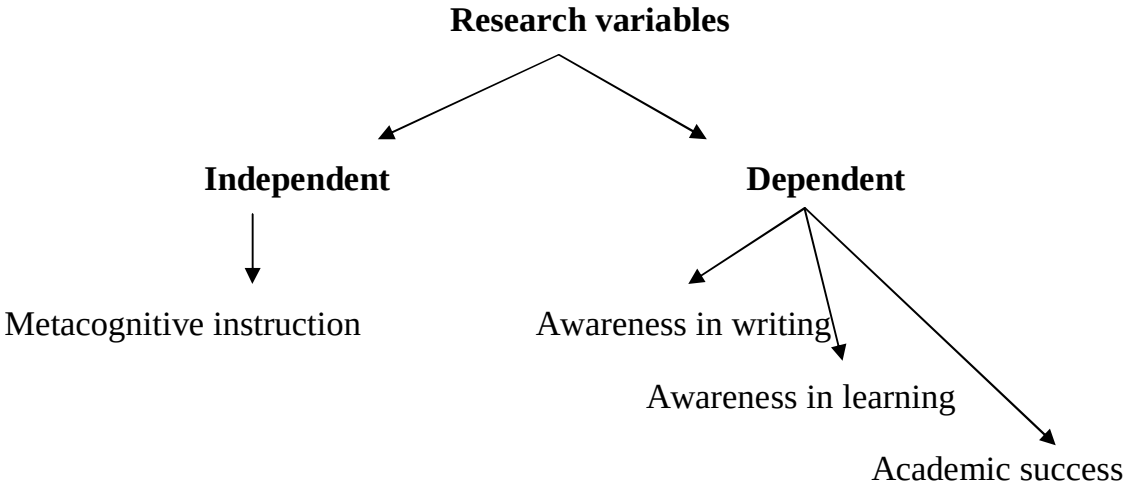

Figure3.3. Research variables

3.2.5.1. Pilot Study

Before undertaking the research, there was a necessity to pilot the study with a first-year LMD group (other than the ones concerned with the present study). Piloting the study serves to reveal the weaknesses of the different survey techniques and pinpoint what to avoid in the experimental research so that improvement can be effected (Seliger and Shohamy, 1989; and Kothari, 2004). The researcher organized some writing sessions in December to specifically put into practice the metacognitive instruction together with the use of e-mails to ensure contact between the teacher-researcher outside the university, and as a complementary tool for improving learners' competence in writing.

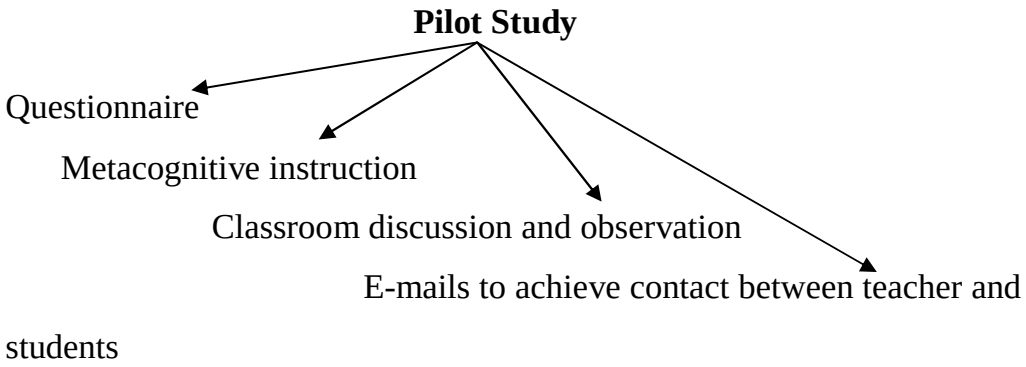

Figure3.4. Pilot study research tools and techniques

The pilot study brought to light flaws in the research plan in a number of ways. The first remark was that the group was too numerous to be taken as a sample of study (62 students were enrolled in that group) and that a smaller sample had to be selected randomly. Second, while considering the responses of the students in the questionnaire, the researcher decided to eliminate a number of confusing questions to render the questionnaire more acceptable for students. As a result, the number of questions was reduced from 20 to 14. In addition, through the classroom observation of learners' reaction to the metacognitive instruction, notes were taken about how the metacognitive instruction could be enriched. A number of activities, believed to raise students' writing awareness and improve their competence, were added. Furthermore, the use of e-mails, though highly appreciated by the learners, seemed not sufficient to achieve the desired objective. Therefore, a teaching platform was opted for the purpose of helping learners online and off line, and so achieving the desired goals. Accordingly, the researcher arrived to the final form the metacognitive instruction, and the teaching platform on the basis of the questionnaires' answers, and on the basis of the discussions undertaken in class during the application of the teaching instruction.

3.2.5.2. The Study Proper

The research was carried out during the second semester of the academic year (2011-2012), more precisely from January to June. The different research tools entered into action successively according to the students' academic activities; that is, according to the schedule of lessons and exams. To note that the experiment could not be started earlier because of the type of writing programme assigned to 1 LMD level, in which the first semester is devoted to sentence building and paragraph pre-writing and outlining, and that the study of the paragraph structure and different types is not explored until the second semester.

The first step in this research work was taken with a (pre-instruction) questionnaire which is the basis of pretreatment evaluation of metacognitive awareness; it was submitted to both samples under study. It was followed by a pre-instruction interview, also with both samples, in order to draw the profile of the informants on a number of pedagogical items in relation with writing and learning. As the first series of exams are organized in February, the researcher collected the 'pretest' results (scores) obtained by informants in writing and in EFL. Just after the exams, the researcher conducted the second interview (while-instruction interview), with the EXP group, in order to have an idea about learners' writing and learning strategies during exams; this enabled us to depict learners' weaknesses and needs. After that, by the beginning of March, the teacher began the writing programme predesigned for the second semester, by implementing the suggested writing instruction gradually. The instruction was enriched by the introduction of the teaching platform in May; the students could attend lessons in class, and refine their understanding through posted lessons. Finally, the same questionnaire given in the pretreatment phase was submitted for both samples for post treatment analysis (post-instruction questionnaire). The third interview was then conducted with the EXP group before the second series of exams (post-instruction interview); it aimed at evaluating the progress in their awareness in what concerns writing and learning. In the end, and after the second series of exams, the researcher collected the 'posttest' results of both groups in writing and in EFL.

The following table explains the different research activities undertaken in each month. In addition, as it is question of an experimental study involving an EXP group and a CTR group, the table also indicates which sample group is concerned by which activity:

Table3.2. Schedule of the experimental study

Time	Activities	Groups concerned
January	- Pre-instruction Questionnaire - - Pre-instruction Interview -	**EXP+CTR** **EXP+CTR**
February	- Scores analysis (semester1) -	**EXP+CTR**
March	- While-instruction Interview -	**EXP**
March-April	- Metacognitive Instruction	**EXP**
May	- The Teaching platform	**EXP**
June	- Post-instruction Questionnaire - Post-instruction Interview - Scores analysis (semester 2)	**EXP+CTR** **EXP** **EXP+CTR**

3.6.2. Data Analysis Procedure

The researcher investigated the development of informants' metacognitive awareness in writing and its effect on writing competence, on learning awareness, and on academic achievement. The researcher could examine the relevance of the instructional devices only by comparing learning achievement of students before and after the implementation of metacognitive strategies, through different analytical approaches: qualitative, quantitative, and statistical. The ultimate goal of this work is to have insights into how to improve students' proficiency in EFL writing and in learning.

The Qualitative Analysis aimed at describing informants' learning and writing bahaviour during the implementation of the suggested instruction and interpreting their responses in the different research tools on pedagogical grounds, relying for this on the experience of informed theorists and researchers. The qualitative analysis concerns most of the research tools: the questionnaire, the interviews, and the metacognitive instruction paired with the teaching platform. The qualitative analysis enabled us to track over time learners' metacognitive awareness; in addition, it allowed students' writing and learning needs to emerge. These were the basis for the subsequent suggestions in the final chapter.

The Quantitative Analysis aimed at analysing the changes that occurred in students' responses mainly in the questionnaire. It also concerned the changes in students' writing and EFL semestrial scores. The numerical results are summarized into tables displaying the different numbers and percentages for clarification and for facilitating the comparison between EXP and CTR groups' results. These quantitative data were necessary to undertake the statistical analysis

The Statistical Analysis aimed at making the comparison of the results between the two samples and showing that the difference was inferentially significant. It was on the basis of the results of the statistical analysis that we could decide the possibility of generalising research findings on the whole population concerned with the study or not.

In order to have a clear picture of the way the different research instruments were used to carry out the research. The following figure illustrates each analytical procedure (qualitative, quantitative and statistical) with the concerned investigative instruments (questionnaires, interviews, scores analysis, metacognitive instruction and teaching platform):

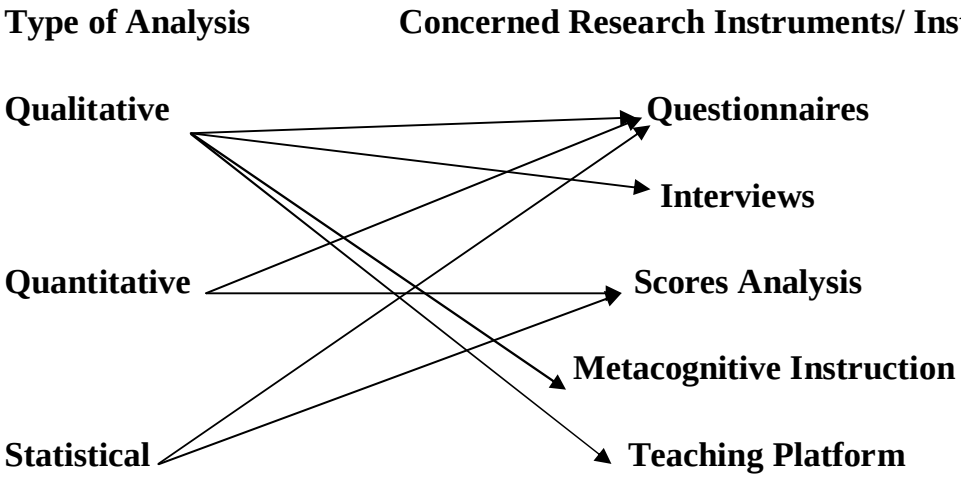

Figure3.5. Data analysis approaches

3.6.2.1. Treatment of Research Data According to EXP and CTR Groups

The research variables were considered through different research tools, and since this research was an experimental study involving an experimental group (EXP) and a control group (CTR), the analysis differed. Only the EXP group was subject to the metacognitive instruction with the teaching platform; therefore, the research tools used with either group was as follows:

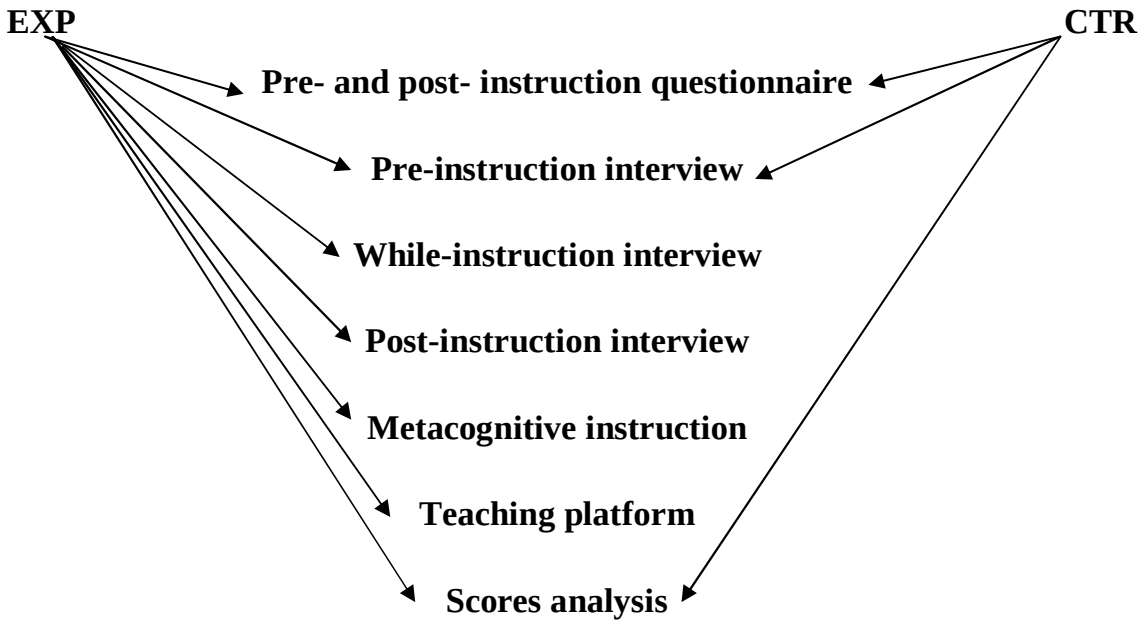

Figure3.6. Treatment of research data according to EXP and CTR groups

Accordingly, the comparison between EXP and CTR groups concerned mainly the pre- and post-instruction questionnaires, the pre-instruction interview and the scores analysis, while the analysis of the data obtained via the other research instruments helped draw a comprehensive picture about EXP group during the three phases of the implemented instruction.

3.6.2.2. Treatment of Research Data According to the Research Variables

The metacognitive instruction was meant to have effect on three dependent variables: awareness in writing, awareness in learning, and academic success. These variables were analysed by applying different data analysis procedures: they required qualitative, quantitative and statistical analyses to varying degrees, as the following table may illustrate:

Table3.3. Treatment of research data according to the research variables

Variables	**Type of Analysis**	**Concerned Instruments**
Awareness in writing	**Qualitative**	· The instruction · The interviews · The questionnaires
	Quantitative	· The questionnaire: · questions **2, 3, 5,7, 9, 12**
	Statistical	The questionnaire: questions **6, 8, 14**
Awareness in learning	**Qualitative**	· The instruction · The interviews · The questionnaires
	Quantitative	· The questionnaire: questions **1, 4, 11, 13**
	Statistical	The questionnaire: question **10**
Academic success	**Quantitative and Statistical**	Students' writing and EFL semestrial averages scores

3.6.2.3. Quantitative and Statistical Techniques

Experimental studies often require the application of arithmetic and mathematical formulas in order to lead the qualitative and the statistical analyses. This was the case while examining the informants' responses in the questionnaire, and while considering their academic achievement through writing and EFL scores.

A) Questionnaires

The questionnaire's design comprised different kinds of questions which led to different kinds of data that can be classified as nominal or ordinal data. Hatch and Lazaraton (1991: 51-61) make the distinction between these types of data as follows:

Nominal scale data refer to attributes or categories and classifies the data according to presence or absence of the attribute. Examples of questions leading to nominal data are dichotomous and multiple choice questions; they may also concern the age of informants, gender, native language, and so on. By tallying learners' answers, we obtain frequencies of the answers, but these frequencies do not have an arithmetic value. The frequencies can be converted into percentages to render comparison between groups possible.

Ordinal scale data concern the degree to which respondents agree with a statement, idea or concept. For example; in question 6 in the questionnaire (see Appendix I), the informants were asked to show how confident they were while performing the different tasks by ticking in the column corresponding to their degree of confidence, on a scale from 1 to 5. In this case, students' responses were transformed into interval scores by applying a Likert Type five-point scale, in which every answer correlates with a mark or a number of points from 1 to 5. *Ordinal scale* data have an arithmetic value, but it is not precise, so the sum of scores is calculated individually for each respondent, and then the *median* of the group is calculated, in an attempt to make a comparison between the two groups under study.

The *Median* is a positional average and is used only in the context of qualitative phenomena. It is often used as a measure of central tendency when the data have been obtained by rank-order measurement (Hatch and Lazaraton, 1991; and Kothari, 2004). The ***Median*** is the score found at the exact middle of the set of values. One way to compute the median is to list all scores in numerical order, and then locate the score in the center of the sample (Troshim, 2006).

The following is the formula used by the SPSS softaware to calculate the median:

$$Me = \uparrow x_{\frac{n}{2}+0.5} \quad for\ odd\ n$$

$$Me = \frac{\left(\uparrow x_{\frac{n}{2}} + \uparrow x_{\frac{n}{2}+1}\right)}{2} \quad for\ even\ n$$

To note that

Me=median

N=scores

In addition, in order to compare EXP and CTR groups' change in medians, the *Sign Test* was used. The sign test is classified as nonparametric test since it is applied with ordinal scale data and not interval scale data.

$$z = \frac{(x + o.5) - \left(\frac{n}{2}\right)}{\frac{\sqrt{n}}{2}}$$

z: the value of the sign test (that is the degree of significance of the considered change)

x: the number of times the less frequent sign occurs

n: the total number of positive and negative signs combined

In other words, the median is the 'average' value of the scores attributed to the learners' answers, while the sign test is used to calculate the extent of the significance of the change occurring in students' answers after the treatment; that is after implementing the suggested instruction.

B/ Scores Analysis

Scores are classified as *interval scale data*. It is similar to ordinal scale data but it is more precise; therefore the techniques for quantitative and statistical analysis are the *mean*, the *standard deviation*, and the *t-test* (Hatch and Lazaraton, 1991). The *mean* is the arithmetic average of all scores of a data set; it is also known as arithmetic average. It takes all the scores into account. It may be defined as the value which results from dividing the total of the values of various given items in a series by the total number of items, as the following formula may show:

$$\bar{X} = \frac{\sum X_i}{n}$$

Where
$\bar{X}$ is the mean
n is the number of observations and
$\sum X_i$ is the sum of all the observations

X = The symbol we use for mean (pronounced as X bar)

$\sum$ = (the Greek letter *sigma*) Symbol for summation

Xi = is the symbol for the scores.

$\sum Xi$ = *is the sum of all the observations*

(to note that observations represent in our case students' scores)

Standard deviation is a measure of variability which shows how much variability there is in scores. When the value of standard deviation is high, this means that there are considerable differences between the scores (or the considered items), the fact which makes the results not statistically significant. On the other hand, if the standard deviation is approaching 0, this means that most scores/items are close to the mean (average), and so the results are statistically significant and reliable.

$$\sigma = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$$

σ = standard deviation

$\sum$ = sum of

x = each value in the data set

$\bar{x}$ = mean of all values in the data set

n = number of value in the data set

When two samples are related (as is the case of our experimental study), the *paired sample t*-test is used in order to estimate the significance of the mean of difference between the two related samples (kothari, 2004: 196). It is applied with the EXP and CTR groups to confirm or reject the research hypothesis.

$$t = \frac{\sum d}{\sqrt{\frac{n\left(\sum d^2\right) - \left(\sum d\right)^2}{n-1}}}$$

T= the calculated t

D= the difference between pretest and posttest scores

$\sum$d = the sum of differences

$\sum d^2$ =the sum of the squared differences

$(\sum d)^2$ =The sum of the differences squared

n= the number of scores (the sample size)

The researcher made use of the SPSS version 20.0 (Statistical package for social sciences) which is a statistical programme that permitted the execution of the different calculations. The data about all the scores were entered into spread sheets within the SPSS programme. The device automatically calculated the Mean or the Median of each group together with the standard deviation. In order to check the significance of difference between the scores of each group before and after the experiment, the researcher resorted to Inferential Statistics in order to arrive to more objective conclusions. The statistical test that was judged appropriate to our case was the Paired Sample *t*-test for parametric measure and the Sign Test for the nonparametric measure. The following table summarises the choices of the different statistical techniques

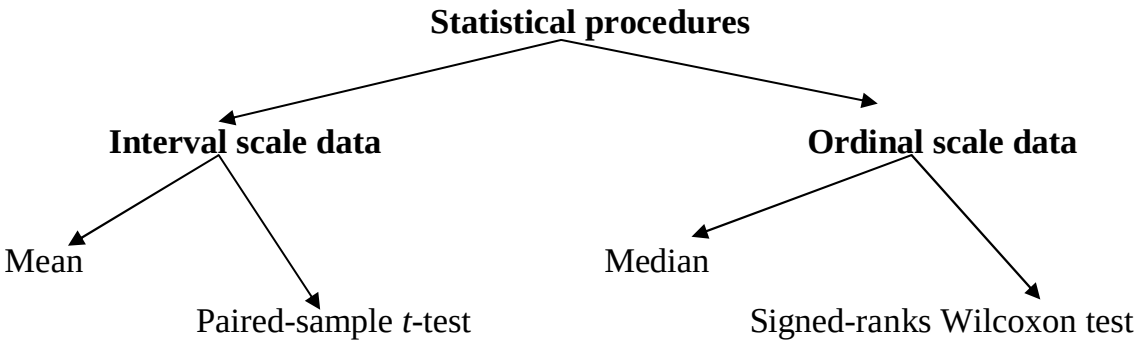

Figure3.7. Statistical procedures with different data types

The results obtained through the different quantitative and statistical techniques were all presented in tables and illustrated with graphs and histograms, showing the results of EXP and CTR groups before and after the implementation of the instruction.

3.7. Conclusion

Developing metacognitive awareness in writing is the objective of this research; for this reason the researcher chose the experimental study as a method of research and opted for a number of research instruments and techniques to carry out the study. The experiment involved two sample groups: an experimental group and a control group; each group counted 30 students. A pre-evaluation was done for both samples in relation to the main variables in the research: awareness in writing, awareness in learning, and academic success. The metacognitive instruction was then introduced with the experimental group only. Next, a post-evaluation was done to judge the effectiveness of the instruction. In order to make the judgment valid and reliable, the researcher made use of different research tools for data collection: a questionnaire submitted before and after the treatment, three types of interviews conducted either with EXP or both EXP and CTR groups, in addition to the analysis of informants' score results in writing exams and semestrial averages. The researcher needed the selection of appropriate analysis techniques and procedures in order to describe, compare and interpret pedagogically the data gathered at different phases of the study. Illustrating tables and figures are used to clarify every procedure with its corresponding research tool(s), as well as the procedures of data treatment according to sample groups or according to research variables.

This chapter, then, provided a detailed description of the research method and design, the research instruments, and the different analysis procedures: qualitative, quantitative and statistical. The results of the research tools would be analysed individually, and then compared to one another as they represented three phases of the pedagogical instruction: before, during and after. The research results would be analysed in away to show the effect of the suggested instruction on three dependent variables: awareness in writing, awareness in learning, and academic success. This will be the main concern of the following chapter.

CHAPTER FOUR

PRE- INSTRUCTION AND WHILE- INSTRUCTION PHASES:

DATA ANALYSIS AND RESULTS

CHAPTER FOUR

PRE- INSTRUCTION AND WHILE- INSTRUCTION PHASES:

DATA ANALYSIS AND RESULTS

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4.1. Introduction

The preceding chapter provided a detailed description of the research design and procedure. It thus clarified the research instruments used in the study, together with the various qualitative, quantitative, and statistical techniques that were used. The present empirical chapter investigated the research topic by analysing the data obtained through the different research instruments (the questionnaire, the interview, and the scores' analysis) before the instruction. After that, there was a need to design a framework that responds to the requirements of university studying and writing as a second phase of the instruction. This framework consisted in a number of pedagogical steps in order to raise students' awareness in writing and learning. It also involved the integration of a computer-assisted writing instruction so as to supplement the examined instruction with technology, and so be able to evaluate the instruction under a different angle.

The researcher adopted an exploratory approach in the different phases of the instruction, since the main focus was to consider learners' development of their metacognitive awareness through the application of different techniques. The target of the whole investigative procedure was to examine the effect of the suggested instruction (as the independent variable) on their awareness in writing, awareness in learning and in academic success (as dependent variables). At the same time, the framework served to check the positive impact of awareness-raising in writing, on self-regulation in writing and learning, and ultimately autonomy in learning. The data gathered via every research tool converged to one purpose that is confirming or not the research hypotheses.

4.2. Pre-Instruction Phase

The first step in this research work was taken with a questionnaire which was the basis of pretreatment evaluation of metacognitive awareness; it was submitted to both samples under study. It was followed by a pre-instruction interview conducted with both samples in order to complete information obtained through the questionnaire, and draw the profile of the informants on a number of pedagogical issues related to writing and learning, before the implementation of the suggested framework. Besides, the researcher collected the 'pretest' results (scores) obtained by informants in writing and in EFL for an initial analysis. The data gathered via the different research tools were analysed qualitatively and/or quantitatively; first individually and then all the results of the triangulation process were cross-compared and interpreted. And, since the answers were for the most part similar between EXP and CRT groups, their responses were considered together in both description and analysis.

4.2.1. Pre-instruction Questionnaire

The questionnaire in the present research study was administered twice, before and after the implementation of the metacognitive instruction, for both EXP and CTR groups. On the whole, the objective of this pre-instruction questionnaire was to capture students' metacognitive awareness in what concerns writing and EFL learning in general. It also strived to deduce their encountered writing and learning difficulties, as well as their motivational and attitudinal orientations. The informants were required to answer in class so as to provide them with clarifications as to how to answer/comment on the different questions. They were given enough time to reflect on the different questions. As the questionnaire contained many questions (14), it took them more than one hour to submit them back.

4.2.1.1. Design

The questionnaire was divided into three complementary parts, each developing one of the three metacognitive components.

Part 1: Person knowledge concerned what students knew about themselves as EFL learners. It comprised such concepts as

- Awareness of own learning difficulties (Question1)
- Motivation and attitudes towards writing in English(Question 2)
- Perceived importance of writing for learning success(Question 3)
- Self-evaluation as learner(Question 4)
- Self-evaluation as a writer(Question 5)
- Self-evaluation while performing given writing tasks(Question 6)

Part 2: Task knowledge concerned what learners thought about the purpose and importance of the writing tasks, and the required skills to fulfill the tasks. It encompassed the following items:

- Importance given to some writing concepts (Question7)
- Solutions opted for to improve as writers (Question 8)
- Writing correction preferences (Question 9)

Part 3: Strategic Knowledge required informants to reflect on their own learning/writing strategies. It specifically targeted

- Learning strategies adopted by learners (Question 10)
- Awareness of aspects of language that need improvement(Question 11)
- Using writing as a learning tool in other modules(Question 12)
- Learning-related Problem-solving strategies(Question 13)
- Writing strategies employed before, during and after writing (Question 14)

The analysis was done in a way to describe the students' 'intial' metacognitive awareness with reference to its three components, and also deduce an initial evaluation of three variables: awareness in writing, awareness in learning, and academic achievement. The following are the detailed results; noting that EXP group's results were contrasted with those of CTR group.

4.2.1.2. Results

Part 1: Person Knowledge (**questions 1-6)**

Question 1: *what are the main difficulties you have encountered during your university studies till now?*

Table4.1. Awareness of own learning difficulties

	EXP		**CTR**	
Items	**AF**	**RF**	**AF**	**RF**
Difficulty of lessons	25	**83,33**	11	**36,66**
Number of modules	18	**60**	18	**60**
Homework	6	**20**	4	**13,33**
Exams	6	**20**	8	**26,66**

AF: Absolute Frequency
RF: Relative frequency

The results of this question showed that the greatest difficulty for EXP group was the lessons themselves, while for CTR group it was rather the number of modules (13 modules for 1LMD; see Chapter 2). Some students explained that the lessons were beyond their capacities, in particular some subject matters: linguistics, literature and civilization. Informants in both groups also admitted they found difficulties in memorising information in the numerous and different modules. The third most cited difficulty was the exams, while homework occupied the fourth place as a source of anxiety. Besides, the students mentioned other difficulties, such as the methodology followed by the teacher which they sometimes found inappropriate to their level; in addition to the big number of students in each group

(which often equals or exceeds 60 students). Other reasons were organizational, such as distance from university and unsuitable time-tables.

Students' answers revealed their concern about their studies, but they also highlighted their weaknesses in cognitive learning strategies since they seemed not to have the necessary cognitive and metacognitive strategies to face the difficulty of lessons at university level through self-management, organization, and compensation strategies.

Question 2: *Do you like writing in English?*

Table4.2. Motivation and attitudes towards writing in English

	EXP		**CTR**	
Items	**AF**	**RF**	**AF**	**RF**
I don't like it at all	0	**0**	1	**3,33**
I don't like it	2	**6,66**	1	**3,33**
I have no feelings about it	1	**3,33**	6	**20**
I like it a lot	27	**90**	22	**73,33**

The greatest majority of informants in both samples admitted they did like writing in English for they perceived writing as a way to express their ideas, emotions and feelings freely. They also believed writing is important to improve the English language as they learn new words and they avoid mistakes; moreover it helped them understand the lessons and also developed their imagination. However, some students said they had no feelings about it or even didn't like it because they had difficulties in finding ideas and expressing them in the written mode; a task they saw as time-consuming. Others even said they 'feared' writing. Nevertheless, from the results, one could deduce the positive attitude students in both samples had towards writing; a fact which would facilitate the task of the teacher(s). These students also appeared to be aware of the importance writing had for them personally to express their ideas and feelings and also for themselves as students, since they believed they needed to learn writing for all modules. The findings also uncovered the fear some students had of this skill though they said they preferred writing to speaking.

In terms of learning strategies, this second question showed that the students who 'feared' or had apprehensions about writing might have a lack of knowledge about the nature of writing as a learning task, and so had poor metacognitive strategies to overcome their fear. They might also need to be guided to some cognitive strategies, such as organization, resourcing and translation; and social/affective strategies such as participating and interacting with peers.

Question 3: *Is learning to write important for your success as a student?*

Table4.3. Perceived importance of writing for learning success

	EXP		**CTR**	
Items	**AF**	**RF**	**AF**	**RF**
Not really	0	**0**	1	**3,33**
To some extent	2	**6,66**	1	**3,33**
Extremely	28	**93,33**	28	**93,33**

Most students (more than 80%) in either sample conveyed the impression to be aware of the importance of writing. They explained they were convinced that through writing they could express themselves and could also improve their level in English, since they saw writing to enrich grammar and vocabulary. They even believed writing to be the basis of all learning and so as an essential requirement for the success in other modules. One of the learners even believed writing was a tool for self-evaluation in learning English in general, while another was convinced that writing fed the thought and led to innovation. Therefore, these results showed that learners in both groups were equally aware of the importance of writing for success in learning. Nevertheless, this awareness had to be proved or contested by the informants' actual learning behaviour through their replies in the coming questions, or through other research tools.

Question 4: *Please circle the right number to rate from 1 (no ability) to 5 (excellent) your current ability in English*

Table4.4. Self-evaluation as learner

	EXP		CTR	
Ability Rate	**AF**	**RF**	**AF**	**RF**
1	3	**10**	0	**0**
2	13	**43,33**	6	**20**
3	10	**33,33**	15	**50**
4	4	**13,33**	8	**26,66**
5	0	**0**	1	**3,33**

Most students in the EXP group believed their level in English was less than average, while most learners in CTR group felt they were rather average. They explained that they were beginners and still had difficulties in understanding the lessons or when reading texts, or even when listening to spoken English. The rest of students assumed their level was rather weak or not good enough because they encountered difficulties in understanding spoken and written language, and did not have a rich vocabulary or a good grammar. About 13% (EXP) and 26% (CTR) thought they had rather a good level in English, justifying that they were trying to improve their level in different ways; one of these was by watching movies in English. Only one student in CTR group believed having an excellent level in English.

Question 5: *Please circle the right number to rate from 1 (no ability) to 5 (excellent) your current ability in Writing.*

Table4.5. Self-evaluation as a writer

	EXP		CTR	
Ability Rate	**AF**	**RF**	**AF**	**RF**
1	8	**26,66**	2	**6,66**
2	10	**33,33**	8	**26,66**
3	11	**36,66**	17	**56,66**
4	2	**6,66**	3	**10**
5	0	**0**	0	**0**

About 33% (EXP) group and 26% (CTR) considered their level in writing was less than average, explaining that they found difficulties in applying writing rules, mainly punctuation and spelling. While 36% (EXP) and 56% (CTR) of the informants supposed having an average standard as they thought they still had much to learn in order to enrich their vocabulary and master paragraph organisation. Many other students admitted their level to be weak, referring to their difficulties to punctuation, poor vocabulary, inaccurate grammar and inadequate ideas organization. Only a few felt they had a good standard, and no one supposed they were excellent in writing.

These results pointed out the extent of students' awareness of their level both in EFL and in writing. It is noteworthy that self-evaluation is a valuable metacognitive strategy that can lead to self-improvement if it is combined with other learning strategies, such as setting goals and self-regulation. However, the students looked like more worried about issues related to form rather than to content, in both writing and EFL learning. They also seemed not to be aware of how to solve their problems in both aspects. The informants revealed thus lacks in metacognitive strategies.

Question 6: *On a scale from 1 (cannot do it) to 5 (completely sure I can do it), show how confident you feel when you perform the writing tasks necessary for your work. Tick in the right column.*

This question was analysed statistically, using a Likert Type five-point scale, in order to facilitate comparison and discussion of results. The following table displays statistical results

Table4.6. Statistical results about self-evaluation while performing given writing tasks

Referential Scores	**0 to 55**
EXP	11 to 33
CTR	22 to 44

The aim of this question was to evaluate students' self-knowledge at doing writing tasks. It measured the extent to which they felt confident while performing the tasks. The results of EXP showed they were not confident enough while performing the tasks; however, CTR students exposed a relatively better confidence than those of EXP group in a number of tasks. The following table recapitulates students' answers in terms of positive and negative self-evaluation in relation to performing writing tasks:

	positive self-evaluation	**negative self-evaluation**
EXP	- organisation - writing a unified text - using details	- avoid L1/L2 interference - punctuation - writing different text types - using words effectively - writing well-structured sentences - using correct grammar
CTR	- writing a unified text - using details - punctuation - using words effectively	- writing well-structured sentences - writing different text types - using correct grammar - writing in all modules - avoid L1/L2 interference

These results revealed students' anxiety at achieving an acceptable standard in writing, and highlighted the fact that the informants were not confident enough while performing many of the writing tasks. It could also be assumed that the lack of mastery of technical aspects of writing (sentence structure, punctuation and grammar) prevented learners from developing their writing proficiency. On the other hand, from a strategies angle, we may notice that these students lacked the necessary rhetorical strategies that would ensure them to write in an organized way, with genre consideration.

Part 2: Task knowledge (Questions 7 to 9)

Question 7: *When you write in English, to what extent do you consider the following items?*

EXP

Table4.7. Importance given to writing concepts (EXP)

Items	Not at all		To some extent		To a great extent	
	AF	**RF**	**AF**	**RF**	**AF**	**RF**
Topic	0	**0**	6	**20**	23	**76,66**
Purpose	2	**6,66**	17	**56,66**	11	**36,66**
Audience	1	**3,33**	20	**66,66**	8	**26,66**
Structure	1	**3,33**	13	**43,33**	15	**50**

CTR

Table4.8. Importance given to writing concepts (CTR)

Items	Not at all		To some extent		To a great extent	
	AF	**RF**	**AF**	**RF**	**AF**	**RF**
Topic	0	**0**	5	**16,66**	24	**80**
Purpose	0	**0**	14	**46,66**	15	**50**
Audience	7	**23,33**	13	**43,33**	9	**30**
Structure	2	**6,66**	12	**40**	16	**53,33**

In this question the researcher tried to find out which of the four aspects was most considered by students while writing. The results demonstrated that students in both samples gave foremost importance to the topic, followed by the structure and organization, and then by the purpose; the audience was given least importance. This led us to conclude that they valued more form and relevance of ideas than purpose; in addition, both groups had a weak sense of readership. This drove us to believe these students valued more the rhetorical aspect rather than the communicative aspect of writing because of their focus on organization and undermining the importance of purpose and of readership.

Question 8: *What do/should you do most to improve your writing competence?*

Table4.9. Solutions opted for to improve as writers

Items	**EXP**		**CTR**	
	AF	**RF**	**AF**	**RF**
Reading	22	**73,33**	24	**80**
Writing	26	**86,66**	28	**93,33**
Grammar/ vocabulary	25	**83,33**	26	**86,66**
Learning journal	10	**33,33**	10	**33,33**
Collaborative writing	11	**36,66**	17	**56,66**
Authentic topics/tasks	17	**56,66**	14	**43,33**
Teacher methodology	19	**63,33**	19	**63,33**
Computer use	14	**46,66**	15	**50**
Writing labs	13	**43,33**	4	**13,33**

This question attempted to check learners' awareness of the different methods of improvement for writing competence. According to the results of both groups, the activities most opted for by the students are as follows:

EXP and CTR
- writing practice, - vocabulary and grammar improvement - reading

While least used activities are as follows:

EXP	**CTR**
- journal writing, - collaborative writing - web-based writing labs	- web-based writing labs - journal writing - authentic topics/tasks

On the whole, these results correlated with preceding ones where form accuracy took over any other writing proficiency criterion. One may add that these learners showed awareness of the fact that writing was best improved through writing practice itself. Besides, results of question 8 correlated with those of question 3 where informants mostly believed writing to be extremely important for their success. However, if we compared them with results of question 6, we would

find difficulties in writing appropriately. These students appeared to lack metacognitive strategy involved in journal writing. In addition, they did not value peer learning and writing, and so had weak social/affective strategy knowledge. Furthermore, the informants' comments in both groups pointed out that most students ignored the importance of technology-based writing, suggesting thus a lack of awareness on their part or a lack of academic instruction at college level or even before.

Question 9: *How do you prefer correction of your writing to be?*

Table4.10. Writing correction preferences

	EXP		**CTR**	
	AF	**RF**	**AF**	**RF**
by yourself	4	**13,33**	8	**26,66**
by classmates	3	**10**	2	**6,66**
by the teacher	28	**93,33**	27	**90**

This question concerned how the students liked better correction in writing to be. All students preferred correction and feedback to be from the part of the teacher. They mostly believed the teacher had more experience, knew writing rules more than anyone else, and thus they trusted the teacher's correction best. About 4 students (EXP) and 8 students (CTR) believed they had to rely on themselves for correction before turning to the teacher. Only 3 students (EXP) and 2 students (CTR) felt classmates could also provide correction and feedback before moving to the teacher.

Students' answers suggested that the informants lacked social/affective strategies that would lead them to perceive the importance of peer evaluation. Besides, they appeared to over rely on the teacher as a source of evaluation and failed to take the responsibility of their own evaluation, showing thus a weakness in metacognitive strategies.

Part 3: Strategic knowledge (Questions 10 to 14)

A/ learning strategies

Question 10: *What strategies have you often adopted for your studies this year?*

Table4.11. Learning strategies adopted by learners

	EXP		CTR	
Items	**AF**	**RF**	**AF**	**RF**
Note taking	21	**70**	28	**93,33**
Peer learning	7	**23,33**	12	**40**
Reading	17	**56,66**	17	**56,66**
Note making from reading	15	**50**	18	**60**
Writing paragraphs/essays	10	**33,33**	12	**40**
Asking questions	23	**76,66**	22	**73,33**
Lesson summarising	16	**53,33**	22	**73,33**
Internet	15	**50**	20	**66,66**

The aim of this question was to consider learning strategies adopted by students so far. According to the replies, the most and the least used strategies for each group and in decreasing order were as follows:

	Most used strategies	**Least used strategies**
EXP	- asking questions, - taking notes - reading related books	-writing essays/paragraphs, - learning with peers. - making notes while reading - using the Internet
CTR	- taking notes - asking questions - lesson summarising	- writing essays/paragraphs - learning with peers - reading related books

These results revealed that students used basically cognitive strategies and missed to use other strategies which could be of great help for their success. They appeared not to know the value of collaborative learning (once again weakness in using socio-affective strategies) and did not devote necessary effort to write regularly in order to improve their writing. They might also be not knowledgeable about what to do exactly to overcome their difficulty; that is a poor procedural

knowledge. One would also find contradictions in their answers for this question if compared with those in question 8 where they recognized the importance of writing for academic success.

Question 11: *What aspect(s) of the language do you think you still need to improve?*

This question also had for objective investigating students' awareness of solutions for improvement. Most of the answers centred on developing the four skills, mainly writing, speaking and reading. The informants also mentioned some language items such as grammar, vocabulary and spelling (technical aspects related to mechanics as opposed to organization, coherence and unity). Others believed they had to improve their level in content modules as literature, civilization and linguistics. A few students expressed their desire to know more about the English culture. The answers in the two samples were more or less quite similar. Most of them evoked cognitive strategies and not metacognitive or social/affective strategies. The following table displays most cited answers in decreasing order, representing aspects of language to be improved:

EXP	**CTR**
- writing - reading -speaking - content modules - grammar and vocabulary -listening	- writing - reading -speaking - grammar - listening - vocabulary - content modules

Question 12: *Do you regularly write paragraphs/essays in other modules to improve your proficiency level?*

Table 4.12. Using writing as a learning tool in other modules

	EXP		CTR	
Items	**AF**	**RF**	**AF**	**RF**
YES	20	**66,66**	18	**60**
NO	10	**33,33**	12	**40**

Most informants in both groups said they used writing in other modules, explaining this improved the writing skill itself as it became a 'habit'. The answers in this question contradicted those in question 10 where few informants admitted to write paragraphs or essays regularly. The other informants said they did not write in other modules because they did not have time to study all modules and yet write on a regular basis, while others did not perceive the necessity of writing in other modules. Accordingly, students' weak procedural knowledge was noticed, since they knew what should be done to improve, but did not know how to put this knowledge into practice.

Question 13: *When you have trouble while learning, what do you usually do?*

Table4.13. Learning-related problem-solving strategies

	EXP		CTR	
Items	**AF**	**RF**	**AF**	**RF**
Individually	11	**36,66**	13	**43,33**
Asking mates	10	**33,33**	16	**53,33**
Asking the teacher	16	**53,33**	17	**56,66**

This question tried to reveal a part of students' problem-solving strategies. The majority of learners reported that they asked the teacher as s/he was more

experienced and more able to guide and to advise. A lesser number of students admitted to rely on themselves as they always did; they also believed classmates might give wrong answers. The rest of informants felt more comfortable to ask classmates since they found their way of thinking quite similar. In short, most students relied on the teacher not only as the primary source of information but also as the source of solutions to learning problems. The informants' lack of self reliance for problem-solving was a hint to their poor self-regulation or autonomy. The answers also reinforced preceding findings in that most students missed to use socio-affective strategies which could incite them to seek support also from their peers.

B/ The Writing Process Proper

Question 14: *Please read each statement and tick in the appropriate column (1, 2, 3, 4, or 5) that tells how true of you the statement is.*

This question investigated the writing process proper and intended to know what students did during the three phases of the writing process: before, while and after writing. The answers were also attributed scores according to a Likert five-point scale, in order to make comparisons between the two samples and draw appropriate conclusions. The following table displays the related statistical results:

Table4.14. Scores obtained by informants in both samples in relation to writing strategies

	before writing	**while writing**	**after writing**
Referential Scores	0 to 35	0 to 60	0 to 50
EXP	9 to 30	16 to 58	19 to 41
CTR	10 to 32	27 to 57	18 to 39

To begin with, one could notice contradictions in informants' answers in the pre- and while- writing phases, in comparison with those of question 7 where the items that students admitted to be least considered while writing were readership and purpose. On the whole, the results showed that the options suggested in the second phase (while writing) corresponded more to what students really did during this phase, and to a lesser extent those in the first phase (before writing). One could also notice that the scores were the lowest in the third phase (after writing). These results also showed poor cognitive, metacognitive, and social/affective writing strategies. It is also noteworthy that a considerable variety was noticed in students' answers, the scores of which oscillated between very low to very high. This could be explained by the fact that students had different writing strategies and that some students had more developed strategies than others.

4.2.2. Pre-instruction Interview

The pre-instruction interview was semi-structured; it aimed at drawing students' profile in both EXP and CTR groups, before the implementation of the suggested teaching instruction. It also gave an opportunity for informants to express their opinions, weaknesses and hopes in what concerned EFL writing and learning. Therefore, students' answers in this interview completed those in the pre-instruction questionnaire.

4.2.2.1. Design

The focus of the first interview was to elicit valuable information about the informants in terms of motivation and attitudes towards language learning, and in terms of language and writing awareness. Since the answers were for the most part similar between EXP and CRT groups, their responses were considered together in both description and analysis. In concrete terms, the first interview consisted in six questions targeting

- Motivation and attitudes (Question 1)
- Attitude towards LMD scheme (Question 2)
- Students' perceptions of 'good' writing (Question 3)
- Students' perceptions of 'good' learning (Question 4)

- Students' self management skills (Question 5)
-Students' perception of teacher's role in developing proficiency in writing and in EFL learning (Question 6)

4.2.2.2. Results

1- *Why have you chosen English as your major at the university?*

Motivation and attitudes are important variables determining success (or failure) in the domain of second/foreign language learning. As explained in Chapter 3 (under 3.2.) most students in EXP and CTR groups expressed a highly positive attitude towards the English language. In addition, for most of them, they deliberately chose to major for a Licence in English at university level because of the opportunities such a degree could open at post-graduate research, professional, and cultural levels. They mainly referred to the job prospects offered by having a degree in EFL (inside or outside the country). Therefore, one might conclude that the students under study displayed an instrumental more than an integrative motivation.

Most cited answers:

- 'I like it'
- 'interesting language'
- 'international language'
- 'to improve my level in English'
-'it is interesting for the future'

2- *Do you have a clear vision of the LMD programme goals, objectives and related job prospects? Why? or Why not ?*

This question tried to find out to what extent students were informed of the LMD scheme, and consider whether this had an impact on their learning achievement. Most students in both samples (86% for EXP and 73,33 % for CTR) reported not to have a clear vision of the LMD scheme objectives. In addition, they considered the scheme to be difficult and complicated to be understood. Moreover, they did not perceive the link between the LMD programmes and future job

prospects, mainly after just 3 years of study (for Licence level). They mostly agreed on the fact that there were little attempts to explain this scheme on the part of the administration. Very few of them (10% for EXP and 13, 33% for CTR) made favourable judgments about this system, and felt confident while perceiving interesting job prospects after graduation.

One may assume thus that students lacked the necessary programme awareness which would enable them to monitor their own formation and progress. Students need then to be thoroughly informed about the LMD as an educational scheme. The information they need would not be related only to pass/fail conditions but also about what is awaited from them as students and then as citizens.

Among the most cited answers:

-‘it is a difficult programme’

- ‘I know little about it’

- ‘it is a new system’

- ‘it is not a clear system’

- ‘no one explained it to us’

3- *What is your definition of good writing?*

The purpose of this question was to assess students' understanding of the writing task and its requirements. This question strived to inquire about learners’ beliefs about what makes ‘good’ writing. Most students in EXP and CTR groups believed good writing to be void of mistakes, mainly those related to grammar, vocabulary and punctuation. Many thought good writing relied on good, relevant and rich ideas/content. A few of the informants made allusion to organization, unity and coherence between ideas, and fewer took the reader into consideration, believing that any written work should be understandable. The students’ answers showed that they gave too much importance to form correctness and to error-free writing. This may be a hindering rather than a helping element when we come to write. The informants’ responses suggested that the students had a blurred view of the nature of the writing task and thus did not have the adequate metacognitive strategies to pursue this task effectively.

Most cited answers in decreasing order:

- ‘correct grammar and vocabulary’
- ‘rich ideas/content’
- ‘rich vocabulary’
- ‘correct punctuation’
-‘when the reader can understand everything’
- ‘writing simple sentences’;
- ‘organization’
- ‘unity and coherence’
- ‘the ability to write paragraphs and essays’

4- *What is your definition of good learning?*

This question also attempted to find out what constitutes ‘good’ learning for these students, and find out what impact such beliefs have on students’ learning achievement. The informants reported that good learning meant principally speaking and writing without making too many mistakes. They also believed good learning to refer to a good level in the four skills without any exception. Some others made allusion to the necessity of ambition, perseverance, concentration in class, regular revision of lessons, reading, and doing personal research. They equally valued the importance of the teacher’s methodology and guidance in-class and out-of-class. It can be noticed that accuracy was restated as a condition for success (as a writer and as a learner). The same lack of awareness about the true nature of the learning task was noted here. This incited us to find reasons behind such wrong vision about both learning and writing.

Most cited answers:

- ‘to speak and to write without mistakes’
- ‘pronounce well and understand others’
- ‘revising lessons and making researches’
- ‘when we try to avoid making mistakes’
- ‘summarising lessons’
- ‘teachers’ methodology’

- ‘asking questions in class’
- ‘having good teachers’

5- *Do you set clear learning objectives by the beginning of the academic year? Why? or Why not ?*

This question was important in that it tried to find out whether students set objectives by the beginning of the academic year. It aspired to discover to what extent students were aware of themselves as students, and to what extent students’ had self-management skills. Nearly half of the informants in each group answered negatively (46,66% for EXP and 40% for CTR), explaining that they preferred to let their options open and not limited. Others referred to the confusion they still faced at the beginning of the year and to the difficulty of lessons mainly after the change they had gone through, from high-school to university level. Some even complained that the LMD scheme was not clear enough to be able to think of specific objectives. About 26% of students in EXP group and 33% in CTR group answered positively, explaining that setting objectives was necessary for the organization of studies and also for the success at the end of the year. They even claimed that setting objectives facilitated learning. What was intriguing was that more students in CTR group than in EXP group admitted to fix objectives at the beginning of the year, believing such an action necessary for their success, while the rest of informants did not set objectives because they saw no necessity to do so as it was just the beginning of the year, and believed objectives would be made clear with time. Many students, however, provided no answer for this question in both samples.

From the above answers, one could conclude that most students ignored the importance of setting objectives by the beginning of the year (weakness in metacognitive strategies such as setting goals, monitoring and evaluating them). This could explain why they might be at times passive, or over relying on their teachers. Nevertheless, it is important to underline the fact that CTR group appeared to be more aware of the importance of setting objectives to ensure success.

Subsequent results might show the impact of such awareness on writing /learning proficiency.

Most cited answers:

- 'to know and decide about your future'
- 'make studies easier through the year'
- 'I prefer letting my options open'
- 'I find difficulties in learning'
- 'I find the new system of education too difficult'

6- *How do you want your teacher to help you improve in learning a) writing; b) English*

This question sought to check students' awareness or problem-solving abilities. It required students to think about how they wanted their teacher to help them improve in writing and in learning.

a) Students' perception of teacher's role in developing proficiency in Writing

The majority of students believed their teacher should give them more writing activities and homework in the form of paragraphs about 'interesting' topics. They also wanted their teacher to teach them every step and strategy in the writing process, without forgetting techniques to avoid grammar and vocabulary mistakes. They equally insisted that correcting their written products regularly and offering them corrective feedback were necessary for their success as writers.

Most cited answers:

- 'give more homework'
- 'show us how to write correctly'
- 'explain writing steps and strategies'

b) Students' perception of teacher's role in developing proficiency in English

The learners expressed their need to receive teacher's help in all modules, and that they needed more practice in the four skills. They specifically evoked their weaknesses in grammar, vocabulary and speaking. Other students made allusion to the necessity to develop research skills so that thay can benefit from interesting websites that could level up their English proficiency. They further recurrently alluded to the communication that should be facilitated between students and the teacher and between the students themselves.

Most cited answers:

- 'helps us become good speakers'
- 'gives us homework and researches'
- 'explain lessons in a clear way'
- 'gives feedback'
- 'guide us to become successful learners'

4.2.3. Pre-Instruction Scores Analysis

As explained in Chapter 3, the third research instrument is the analysis of scores obtained by informants under study before and after the implementation of the instructional framework. This was done by analysing the pretreatment and post treatment scores obtained both in writing and in EFL in general. The aim of such research tool was to analyse the effect of the instruction on students' academic achievement through the analysis and cross comparison of the scores of both samples under study. Such an effect would be completely analysed by comparing semestrial averages of students for each sample before and after the treatment. This would be the concern of the post-instruction phase. In that first phase, focus was on the description of students' results in the first semester; which would serve as a reference for comparison and discussion for the post treatment phase.

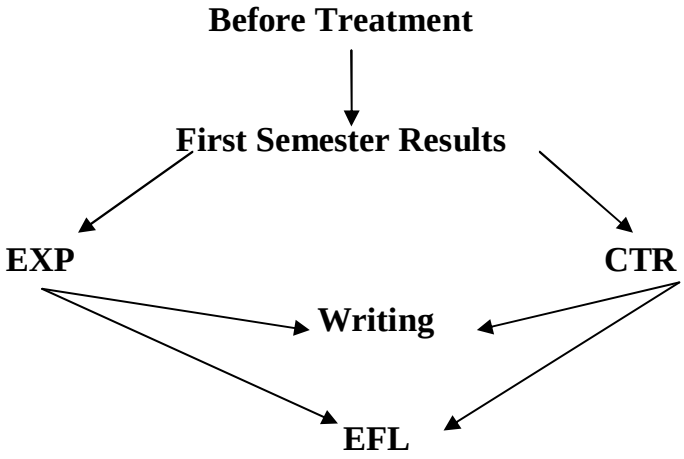


Figure4.1. Pre- instruction scores analysis procedure

In fact, we proceeded only to the numerical description of the results in the present phase, while the statistical description was dealt with in the post-instruction phase. Only the *mean* (arithmetic average) was taken into consideration in this description, using SPSS programme.

The following table displays the results of the EXP and CTR groups in first semester writing:

Table4.15. Descriptive statistics of EXP and CTR writing exam means and semestrial averages

	N	Min	Max	Mean	Std. Deviation
EXP writing exam1 scores	30	7,50	15,50	11,5333	1,92055
CTR writing exam 1 scores	30	7,00	14,50	10,4000	1,99741
EXP semestrial average1	30	9,61	13,84	11,5400	,93795
CTR semestrial average1	30	7,99	15,55	10,9877	1,55626

Min: minimum **Max**: maximum

The analysis of the students' scores revealed a rather average level in both writing and EFL, for both samples. The results also showed that the scores were roughly similar despite a slight overachievement on the part of EXP sample, both in writing and in EFL. This was not of great significance in the beginning; it was the change in academic achievement that could confirm or not the impact of the instructional framework on EXP sample and lack of impact on CTR sample. This was our concern in the post-instruction phase.

4.2.4. Discussion of Pre-Instruction Phase Results

While considering the results obtained via the different research tools, the researcher could draw initial conclusions in the form of a pre-evaluation of students' metacognitive awareness. This was done by first discussing and interpreting the findings according to research variables and then according the three components of metacognition.

4.2.4.1. Discussion According to Research Variables

As this was the pre-instruction phase, no logical links could be deduced between students' answers and their semestrial scores in writing and in EFL; therefore, the results interpretation concerned only two research variables: awareness in writing and awareness in learning.

From a strategies angle, what could be noticed was that these students lacked the necessary rhetorical strategies that would ensure them to write in an organized way, with genre consideration. They also had deficiencies in exploring the communicative aspect of writing because of their focus on form and organization and undermining the importance of purpose and that of readership. More specifically, the informants' replies suggested that they used a limited number of writing and learning strategies at a time. The following table recapitulates the writing strategies used by learners during the writing process in the pre-instruction phase:

Writing process	Writing strategy	Sub-strategy
Pre-writing	metacognitive cognitive communicative	- planning/outlining - considering purpose - retrieval or getting information from memory - generating ideas - sense of readership
While-writing	rhetorical metacognitive cognitive communicative	- organization -evaluation (reconsidering written text) -retrieval - sense of readership
When revising	metacognitive cognitive social/affective	- monitoring - revising - clarification -getting feedback

In terms of learning strategies, the results revealed students had poor metacognitive strategies, and were not aware of how to solve their problems in both aspects. In addition, they did not value reflective learning through diary keeping, nor peer learning and writing, and so had weak social/affective strategy knowledge. They also ignored the role of autonomous learning, self-regulation, and self-reliance. They also highlighted their weaknesses in learning strategies since they did not have the necessary cognitive and metacognitive learning strategies to face the difficulty of lessons at university level through self-management, organization, and compensation strategies.

4.2.4.2. Discussion According to Metacognition Components

In order to have a more comprehensive picture of informants' metacognitive awareness before the instruction implementation, the teacher resorted to put the research findings gathered from the different instruments under scrutiny. Thus, in addition to their analysis according to research variables, the following represents their investigation in relation to the main metacognition components:

person, task, and strategy knowledge. In fact, the informants' replies revealed strengths and weaknesses in their learning strategies and mainly the degree of their metacognitive awareness.

a) Person Knowledge:

Most, if not all informants had positive attitudes towards EFL and towards writing in English. They were aware of the importance of writing for their success as students. This same awareness is likely to facilitate their learning and success. However, they expressed their writing anxiety and their lack of self- and studies-management skills. In addition, they identified their weaknesses in what concerned receptive skills first (understanding in listening and reading) before dealing with productive ones (speaking and writing). They particularly referred to their weaknesses in grammar, vocabulary, and mechanics (spelling and punctuation). They were aware that their level in EFL was rather average, and below average in writing (though their scores pointed that they were rather average in both writing and EFL learning). Nevertheless, their replies implied that they were not aware of how to solve their problems in both aspects. Consequently, one may conclude that these informants had a weak procedural knowledge. In addition, their answers revealed they had little confidence while performing the different writing tasks; this could impact negatively on their learning and success.

b) Task Knowledge:

All students gave the impression to care more about ideas (content) than about structure or purpose, and cared least about audience. This may explain their fear of writing during exams where they mostly focus on the amount and accuracy of information they write. In addition, their answers revealed they were knowledgeable of the different strategies for improvement; nevertheless, they did not know how to put this knowledge into practice. In addition, their overreliance on the teacher as a source of information, feedback and problem-solving was a sign of lack of autonomy.

c) Strategy Knowledge:

Students' answers reported poor learning and writing strategies. They believed good writing and good learning to be void of mistakes, mainly those related to grammar, vocabulary and punctuation or pronunciation. Moreover, they had weaknesses in strategies adopted before and after writing that is planning and revising strategies. On the other hand, only half of the students affirmed setting objectives by the beginning of the academic year. Moreover, they tended to give too much importance to form correctness and to error-free writing. This focus on correctness raised students' anxiety and prevented them from composing freely; their self-image being under threat of negative assessment and thus resulting into the writer's block, which in turn prevented them from improving. Besides, the fact they insisted on accuracy (over fluency) may be due to the focus of teachers during all levels of their EFL studies on the correction of technical aspects as grammar, spelling and punctuation. Furthermore, most students ignored the importance of setting objectives by the beginning of the year. This could also explain their over-reliance on their teachers.

4.3. While-Instruction Phase

After the first series of exams, the researcher conducted the second interview (while-instruction interview), with EXP group in order to have an idea about learners' writing and learning strategies during exams; this enabled us to depict learners' weaknesses and needs. After that, the researcher began the writing programme predesigned for the second semester, by implementing the suggested structure gradually. The instruction was enriched by the introduction of the teaching platform; the students could then attend lessons in class and refine their understanding through the posted lessons. In what follows, the description and analysis of research tools related to this phase, beginning with the interview, and moving to the teaching methodology with its related teaching platform.

4.3.1. While Instruction Interview

The second interview was conducted with the EXP group only, after the semestrial exams and just before the beginning of the instructional framework implementation. The objective of this interview is to closely consider students' writing and learning strategies during exams. As it was semi-structured in nature, it balanced control and freedom and enabled the teacher to discover hidden reflections of students while performing writing and learning tasks, mainly under the pressure of exams. More specifically it targeted learners' application, during exams, of their

- learning strategies (questions 1, 2, and 3), and
- writing strategies (questions 4, 5, 6, 7, 8, and 9)

4.3.1.1. Results Description

Question 1: *How did you find the exam of writing? (easy/ difficult/ predictable)*

This question aimed at probing students' reaction to the end-of-semester exam of writing, more precisely in what concerned their perceived level of difficulty. The informants' responses indicated that most students found the exam rather predictable and easy, but also long which caused some problems in time management.

Question 2: *How did you proceed in your answer? (according to the difficulty of the activity/ the marks of each activity/ the order in which the exam activities are presented)*

The aim of this question was to evaluate learners' strategies while answering exam questions, beginning from the choice of the first activities to be done. Most students reported to proceed according to difficulty and more precisely from easy to difficult. A few of them answered the questions in the order they were presented on exam papers.

Question 3: *How did you choose your paragraph topic? (the easiest topic/ the most interesting topic/ a familiar topic)*

This question also attempted to find out the strategies adopted by students during exams. The majority of informants confirmed to choose the easiest or most familiar topic, on which they had enough information.

Question 4: *Did you follow the three steps of the writing process?*

This question tried to check whether students made use of the writing strategies learnt in class, (specifically the three steps of the writing process) while they were answering exam questions. Only two students responded positively to this question, without explaining their answer. The rest of students admitted not to follow the three steps of writing. They either opted for the "pre-writing and writing" option (43,33%) or the "writing and rewriting" option (26.66%). The greatest majority of students related their choices to the lack of time to follow the three steps, and as they were under exam time pressure, they preferred to choose precisely only two steps.

Among the most cited answers:

- "I have to answer fast"
- "I don't care much of the first step"
-"I organize ideas in my mind and then I write directly"
-"I mix freewriting with writing and then I rewrite my paragraph"
-"I can't follow all the steps because I concentrate more on the mark I can get in the exam"

Question 5: *Did you begin with the outline first or with the paragraph directly? Why?*

This question also evaluated students' use of writing strategies, but the focus in this question was on writing the outline before writing the paragraph. Most students affirmed beginning with the outline before writing the paragraph. They explained that beginning with the outline facilitated generating ideas, ordering and organizing these ideas, writing the paragraph more easily, and avoiding confusion.

Nevertheless, other students found it difficult to begin with the outline and preferred starting with the paragraph first, which enabled them to think of ideas and then write (in fact deduce) the outline later. They gave the following comments:

- 'the outline is the first image of the paragraph and it helps us to write'
- 'I begin with the outline so that not to forget ideas'
- 'I begin with the paragraph because it is easier for me'
- 'I move from paragraph to ideas because I can find ideas'

Question 6: *What were your difficulties during the exam?*

In this question, we aimed at diagnosing learners' difficulties during exams. The most cited difficulties were as follows:

- vocabulary (finding exact words or using words effectively) (53,33%)
- grammar, mainly the correct use of tenses (36,66%)
- finding ideas (20%)
- sentence structure (word order, types of sentences, parallel structure) (20%)
- time management (16,66)
- thinking in Arabic/ not being able to translate from Arabic to English (13,33%)
- punctuation and spelling (10%)
- stress management
- understanding the topic
- expressing ideas through effective language

Question 7: *What do you intend to do in order to improve your writing?*

The objective of this question was to check students' intensions about solving problems related to their learning/writing difficulties. Most cited answers were

- writing paragraphs more regularly and in different topics (100%)
- reading books, stories and paragraphs (40%)
- following the three steps of correct writing (13,33%)
- improving language, and more specifically grammar and vocabulary (10%)
- learning from mistakes and correcting them with the teacher
- writing and being careful of mistakes
- 'I don't know how to solve my problem'

Question 8: *What do you want your teacher to add to the lessons to improve your writing?*

This question simply invited learners to give their teacher ideas about ways they could be helped to overcome their weaknesses in writing. First of all, 40% of informants did not answer this question (it is likely that they did not know what to answer). Most students believed their teacher(s) should

- give them more practice activities, in class and as homework (40%)
- give them advice and strategies to develop their writing competence (13,33%)
- correct their paragraphs/mistakes and show them whether they have improved (10%)

Question 9: *When you were answering in other modules, did you follow the three steps of the writing process?*

In this question, the purpose was to check whether learners were able to make use of writing strategies in other modules, specifically during exams. Most learners (70%) admitted not to follow the three steps of the writing process because of lack of time to do so. Therefore, they rather opted for writing and rewriting, neglecting the prewriting phase. As has been explained by one of the informants, “I think of the ideas in my mind and then I begin to write”. Some students chose rather to prewrite and write and miss to rewrite their paragraphs because of time pressure. They also added that their difficulties in other modules generally consisted in

- finding relevant information
- finding vocabulary (effective words)
- writing correctly
- organising ideas
- correctly using grammar and vocabulary
- using simple sentences

4.3.1.2. Results Discussion

Learners' responses indicated that during exams, the learners proceeded from the easiest to the most difficult question for the major part. Most of them chose paragraph topics that were rather familiar or on which they had prior knowledge; in other words, they opted for safe choices. They avoided taking risks of dealing with difficult or challenging topics since they were examined and so were marked; by the same token, they avoided wasting time. One can deduce thus two strategies adopted so far: *avoidance* as an affective strategy (Hamzaoui, 2006) and *topic selection* as a compensation strategy (Oxford, 1990), in addition to 'time-saving' as a metacognitive strategy (Hamzaoui, 2006). Besides, most of them said they did not follow the three steps of the writing process (prewriting, writing, and rewriting) because of lack of time. They either chose 'prewriting and writing' phases, or 'writing and rewriting' phases. The researcher noticed poor time management and self-management strategies since under pressure they preferred to be fast while answering instead of undergoing the risk of having a bad mark. This could also suggest that these students had an immature view of the writing process; moreover, they certainly lacked necessary practice in timed paragraphs which could enable them to go through the three steps of the writing process even during exams. Nevertheless, most informants affirmed to begin with outlining before embarking into writing practice, explaining that outlining helped them organize ideas and even bring new ones. It is noteworthy that planning is an important metacognitive writing strategy.

In what concerned difficulties during exams, they mainly referred to their weaknesses in vocabulary, grammar, sentence structure, and in finding appropriate ideas. They also evoked the impact of L1 (Arabic) and to a lesser degree FL1 (French), as they happened to think in these languages but they found no equivalents in English. In other words, they resorted to the rhetorical strategy of translating generated ideas into English, but they often encountered hindrances. They equally admitted to have weak time management skills. However, these learners seemed to be aware of their learning weaknesses, self-evaluation being a metacognitive strategy, and also aware of routes to improvement. They mainly cited

writing practice, reading, and language improvement as possible solutions to their weaknesses in writing. The informants even suggested that their teacher(s) should provide them with more writing practice, and insisted on correcting their mistakes and giving them feedback on the level of their improvement. They believed thus that the teacher's feedback could help them monitor their progress. Moreover, while answering in other modules exams, they admitted not to follow the three steps of the writing process because of lack of time, and because they thought more of the mark they would get. They revealed once again lack of time management skills; furthermore, they mentioned learning difficulties related mainly to the correct use of language under time pressure.

In terms of metacognitive components, one could conclude thus lacks in person knowledge since the informants appeared to be aware of their writing and learning difficulties and weaknesses, but they were unable to perceive the cause of their shortcomings. In addition, they had deficiencies in task knowledge as they did not know what should be done to write successfully under time and mark pressure. Finally, one would add lacks in strategic knowledge because the students' answers suggested they had an idea of what should be done to overcome their weaknesses (procedural knowledge), but they did not know how to put the solutions into practice (conditional knowledge). In other words, they were not able to select the appropriate writing/learning strategies, nor were they able to apply the selected strategies appropriately.

4.3.2. Implemented Writing Instructional Model

The metacognitive awareness-raising instruction was inspired from different learning and writing approaches that highlighted the link between writing, learning, and thinking in addition to learning strategies instruction and computer-assisted writing. Writing is valued not only as a learning skill but also as a thinking and problem-solving skill which required reflection during all steps of the composing process. Therefore, some strategies were adopted from CALLA so that writing instruction is implemented in ways in which the teacher could plan, sequence, support, and assess writing and learning. Later, the instruction was expanded through the use of ICTs, within CAW approach, as the following figure may suggest:

Figure4.2. Writing Instructional Framework

The instruction itself involved teaching writing strategies through

- different ways of presenting the lessons,
- some of the students' homework is handed back after filling in self-editing, peer-editing sheets or scoring sheets (Appendices J, K, and L), and these represented an interesting corpus to investigate.
- different ways of responding to the written products, and different ways of evaluating the students' written products. (i.e. feedback and evaluation)
- discussion over the different lessons, between students and the teacher or between the students themselves through pair- and group-work.

4.3.2.1. Teaching Method

The different stages of this approach were aimed to guide students develop their mastery of writing strategies through explicit instruction that was based on such metacognitive strategies as planning, monitoring, and evaluating. Writing strategies were explicitly taught, and so was metacognitive awareness. For this purpose, the researcher drew insights from different researchers' experiments on metacognitive instruction. For example, Paris and Winograd (1990) suggest the explicit instruction in metacognitive awareness through main features organized as follows:

1. Defining the strategy.
2. Explaining the purpose and benefits of the strategy.
3. Explaining the application of the strategy by using instructional aids such as analogies and think-alouds.
4. Explaining when and where the strategy is to be used.
5. Evaluating the use of the strategy

The aim of such practice is to make students 'actively' instead of 'subconsciously' aware of their mental actions. Ultimately, students will be trained in regulating their cognition as well. Also, Xiao (2007) advocates scaffolded instruction, after Vygotosky's principle of Zone of Proximal Development (see section 1.6.2.2) to provide students with guided practice until their metacognitive strategies move toward an automatic state. He believes that the teachers should model the use of the teaching strategies by first presenting the strategy, providing contexts for its application, providing feedback, and then providing independent practice.

The following tables clarify how the mentioned insights of the different researchers were adopted to contrast teacher's role with students' role while developing their metacognitive instruction in writing. They are illustrating four main stages of the instruction:

Stage One: Planning

Teachers' and students' roles in the first stage of the instruction

Teacher	Students
- Specifies objectives of the lesson - (possibly) asks learners to make their own research about the type of paragraph to be studied - activates background knowledge	- attend and participate - ask themselves such questions as *What is the nature of the task?* *What is my goal?* *What kind of information and strategies do I need?* *How much time and resources will I need?*

Stage Two: Sequencing

Teachers' and students' roles in the second stage of the instruction

Teacher	Students
- explains/models how to write a piece of writing - introduces such activities as : *Reading a model paragraph illustrating the writing genre under focus, or deriving features of that genre and* *deducing theoretical basis/rules* - teaches explicitly writing strategies (prewriting, outlining, drafting…) - provides practice in class of the studied strategies into individual, pair or group work (to raise awareness of reader, Brookes and Grundy, 1998)	- practise guided participation - contribute with their research results and arrive with teacher's guidance to a theoretical summary - apply strategies with guidance - write a list of words/sentences to find something to write about) - try different prewriting techniques - write different drafts of the topic

Stage Three: Monitoring

Teachers' and students' roles in the third stage of the instruction

Teacher	Students
- responds to learners' first draft by putting a number of remarks and comments (gives feedback) - provides overt and external guidance to students while they are composing, - sometimes resorts to one-to-one instruction to help learners gain confidence in their learning and writing strategies (through unstructured interviews and conferences) - watches them compose and provides assistance as needed.	- are incited to correct their own work by interpreting feedback symbols - are trained to self-questioning to monitor their own progress, using questions as *Do I have a clear understanding of what I am doing?* *Does the task make sense?* *Am I reaching my goals?* *Do I need to make changes?* - compose *silently* using the writing and regulatory strategies learned in the previous steps

Stage Four: Assessing and Expanding

Teachers' and students' roles in the fourth stage of the instruction

Teacher	Students
- assesses strategies - supports transfer of strategies to new tasks - provides more practice through homework, class work, or timed/ untimed writing - evaluates students' written products via written comments or grades (formative and summative assessment) - encourages independent use of writing and regulatory strategies	- are encouraged to self- and peer-editing/ scoring, using self- and peer-evaluation sheets - self-assess own strategies *Have I reached my goal?* *What worked?* *What didn't work?* *Would I do things differently next time?* - transfer strategies to new tasks - become self-directed, and use the internalized strategies to compose and self-regulate their writing - use strategies independently

4.3.2.2. Unstructured Interviews and Conferencing

During the instruction, the researcher conducted unstructured interviews and conferencing in order to have students express themselves on their learning process, and so to draw their awareness of their own writing strengths, weaknesses, and needs. By increasing students' awareness of their own writing experience and knowledge, the teacher gained insights about students' progress at both writing and metacognition levels. The researcher thus incorporated such questions, while monitoring students' application of writing strategies, as the ones suggested by (Chamot *et al*, 1999: 67-71-104):

1) **Focus on thinking**

- What are you going to do?
- How did you come up with that?
- What are you thinking about?
- How can you solve your problem?
- How did you decide that?

2) **Focus on writing**

- What might stop/disturb you when you are writing?
- When you are writing and you have difficulty, what do you do? Why?
- What do you do after you finish writing?
- What do you do to make sure you are writing correctly?
- Describe the strategy you use when you write. Why is this strategy useful?

3) **Focus on learning**

- What do good learners of English do?
- What are some things do you help you learn English?
- What is your preferred learning strategy? Why?

4) **Focus on self-perception/ self-evaluation**

- Do you think that you are a good writer? Why or why not?
- Is the strategy you are following while writing effective?

The researcher adopted different techniques in order to introduce the different questions:

- writing the questions on the board,
- printing the questions on handouts and asking students to refer to them while doing given tasks,
- asking the questions orally, or
- requiring the students to write and answer the questions with class written assignments or homework

On the basis of students' answers, the teacher provided overt and external guidance to students while they were composing through either oral or written comments, asking them questions like

- What do you mean by this sentence?
- Do you think this sentence is relevant to the theme of the paragraph?
- What do you do if you cannot find ideas?
-What do you need to do to revise this sentence? Are you sure it is a complete sentence and not a fragment?
-Do you need to delete it or add more sentences to make it coherent with the previous text? (Adapted from Xiao, 2007: 29)

The students were reticent to answer some questions in the beginning, but they gradually were used to the questioning practice. In addition, at first, the students displayed little awareness of the importance of goal-setting for their success as writers or as learners. Many even had difficulties in expressing what they were thinking about. As for writing, they generally gave comments on their difficulties in executing all the steps of the writing process, mainly the fact of starting with an outline. In addition, they admitted feeling 'stuck' in the prewriting phase when trying to 'start' the paragraph. This inability to find ideas right in the onset of the composing phase could be explained by self-imposed barriers which forced students to think about writing correct sentences even before 'thinking' about possible ideas to be included. Moreover, student writers pointed to the fact that

writing needed time and concentration; things that were not often available in class, where they had to submit assignments in strict time limits.

It may be noteworthy that some students were not interested in writing activities at all. They showed little motivation since they knew they had to find ideas, organize them well and express them in correct English. A rather highly demanding task for students still struggling with language basic knowledge related to grammar, vocabulary, and sentence structure. Nevertheless, some other students felt more at ease with writing rather than experiencing the frustration of speaking in public. They expressed such sentences as “while writing, I can express what I want” or “I feel I am in my own world”.

Some students resorted to using the dictionary (or using their smart phones) to find the words they need. Others asked for help from the teacher or from their peers. They rarely followed the three steps of the writing process. They edited their work at word-level (for vocabulary choice or grammatical accuracy) rather than at sentence-or at paragraph-level. They were observed to make use of the following writing strategies (see table1.2.):

1) Rhetorical strategies

- translating from L1/L2 into ESL
- formatting/modeling for genre consideration, and (to a lesser extent)
- organizing written product into *beginning, development and ending*

Though translating from first or second language may provide help for anxious student writers, it may also draw them to the pitfall of complete reliance on translation for self-expression in the written mode. This could on the one hand deprive them from learning the particular characteristics of English style; and on the other hand, draw them to produce meaningless sentences because of literal translation. We could find such sentences as

- “..I tried *to play it normal,* but I couldn’t, I was not happy…”
- “..in university, you must *depend* on yourself…”
- “*Should the students revise* their lessons regularly and share their hours”

- "…many *colours different*.."
- " football *collects* all classes of people"

2) Cognitive strategies

- retrieval to have information from memory during the prewriting phase
- revising by making changes in plan or in written text
- elaborating by extending the contents of writing

As far as the cognitive strategies are concerned, students mainly made changes at the level of the plan or the written text, by adding new words or expressions to some sentences. While passing around, the teacher could observe some learners crossing words and replacing them with others, between the lines or on the margin. In addition, a few students could elaborate their written products by extending the content with more ideas and longer and sophisticated expressions, but this was only for students who had little difficulties with English grammar and vocabulary.

3) Communicative strategies

- avoidance**:** avoiding problems related to language
- reduction: giving up some difficulties related to finding relevant ideas, or finding corresponding vocabulary

Students were also observed on some occasions to give up efforts to find appropriate ideas or expressions in order to get rid of their anxiety. Besides, they contented themselves with writing simple or compound sentences generally coordinated by 'and' and 'but'. Therefore, they rarely expanded their sentence structure to complex or to compound-complex sentences. When asked to justify their choice, they usually answered that it was easier and less time-consuming. They added that, while writing, they concentrated on the ideas rather than on the form of sentences.

4) Social/affective strategies

- resourcing by referring to dictionaries or to their handouts containing theoretical lessons seen in class
- getting feedback by seeking support from teacher or from peers

Students often used their dictionaries to find particular words, or simply asked the teacher to give them the equivalent of their ideas (often in Arabic or in French). Some learners equally asked the teacher to give them feedback on their paragraphs even if they had not finished yet, in order to be sure they were on the track. Others rather preferred to get feedback only when they totally finished, and when they were certain their written work was flawless. Their attitude may be explained by attempting to avoid negative evaluation from the teacher or even from their peers.

5) Metacognitive strategies

- planning (weak or no planning for most students)

Most students displayed poor or no metacognitive strategies. They did little or weak planning, because they were in a hurry to begin their first draft. Some even perceived planning as an unnecessary step since ‘better ideas come while writing’ _ as some students would remark. In addition, they seemed unaware of the cause of their difficulties or the remedy to their weaknesses. Finally, it is important to note that there was great variety in the application of the different strategies. But on the whole, they proved to practise rather poor writers’ strategies **(**see table 1.3.).

Nevertheless, one would not deny that unstructured interviews and conferencing permitted to establish communication canals between the teacher and students and between students themselves. This could be even more fruitful through self-and peer editing and evaluation.

4.3.3. Corpus study

As part of the requirements of writing subject-matter, written assignments were given regularly to students in order to practise the studied genre and achieve progress at sentence and at paragraph level. While considering their homework or their class work, the analysis revealed that subject students showed many weaknesses at the level of grammar, vocabulary and mechanics. They also had difficulties that seemed to persist throughout the different written assignments related mainly to L1 or FL1 influence; the reason why their written products were often found incoherent. In addition they displayed an inability to differentiate between formal and informal style. Accordingly, it is of great importance for EFL writing teachers to focus on teaching students how to monitor and evaluate their writing processes and written products. This is why the teacher incorporated editing and evaluation sheets in parallel with the written assignment for the purpose of developing students' awareness of their own strengths and mainly weaknesses in writing.

4.3.3.1. Peer and Self Editing

While filling in peer- and self-editing sheets (Appendices I and J), EXP informants were also required to add necessary remarks to their own written products or those of their peers. The researcher observed that EXP informants, during self-editing practice**,** filled in the sheets and came to perceive their own weaknesses, but they appeared to have difficulty in finding errors related to grammar, vocabulary and spelling. They thus found more easiness in making comments on form, structure, and coherence. The informants illustrated this by such remarks as

- 'I found mistakes concerning parallel structure'
- 'I don't know how to punctuate correctly'
- 'I found an irrelevant sentence '
- 'I can't see my mistakes'
- 'I find that I always forget transitions but I can't find grammatical mistakes; I always have a problem with grammar'
- 'If I could know the mistakes, I would not commit them from the start'

Though they believed to be unable to edit their written work, they could gradually discover their mistakes, mainly when they compared their paragraphs with the model paragraph previously studied, or with the theoretical lessons discussed in class. With peer-editing, students underlined the topic sentence and the concluding sentence and all transitional devices, to draw their attention to paragraph organization. In addition, they added comments on format, mechanics and content. They also underlined mistakes, used circles or arrows, inserted question marks for confusing words and sentences, or even suggested better words or expressions. They equally wrote side- and end-of paragraph remarks, such as

- ‘good’ or ‘clear’ ideas
- ‘be careful of mistakes’
- ‘you need to write more ideas’
- ‘avoid irrelevant ideas’
- ‘add a concluding sentence’
- ‘add more details’
- ‘write ideas in logical order’
- ‘ the second supporting idea is clearer than the first one’

Peer-editing improved their ability to perceive mistakes or lacks in general in their writing or in that of their mates. In addition, the practice of underlining the topic sentence, the concluding sentence, and transitional words drove informants to make sure these parts of paragraph did make part of their written works. Furthermore, answering the editing sheets guided even more to check the structure of the sentences, by ensuring every sentence contained a subject and a verb, and expressed a complete meaning.

4.3.3.2. Peer and Self Evaluation

Pucheu (2008) believes that maintaining a scoring rubric ensures consistency and objectivity for teachers while grading written assignments. It also trains learners to take responsibility for their own evaluation, and opens their eyes to different kinds of mistakes. Therefore, the researcher introduced a scoring rubric (Appendix L) for students to be used as a reference for self- and peer- evaluation.

The students were asked to act as teachers and correct their written work or that of their peers. They circled and underlined mistakes and added comments on form and language use. At the end, they put scores. While observing this practice in class, the researcher provided guidance to students as to how to use the scoring rubric since there were many students who displayed uneasiness. Some learners made the remark that correcting a written work was so difficult and that they realized the tremendous work teachers did while pursuing their task. Others expressed their astonishment that correction was so detailed and admitted that it opened their eyes to different aspects of their writing they usually did not pay attention to. In the end, they enjoyed the assessment practice and were pleased to write comments to their peers, such as

‘ good paragraph but you need a conclusion’
‘ good ideas but a lot of spelling mistakes’
‘there is no coherence’
‘nice organisation’
‘be careful of grammatical mistakes’
‘rich ideas but a lot of repetition’

It may be useful to note that most students focused on the number and nature of ideas in the written products. This may give a hint to what they focus on during tests and exams. On the other hand, many students reported that they found peer-editing and scoring easier than self-editing and scoring because they judged it hard to perceive their own mistakes and be totally objective. Nevertheless, peer- and self-editing/scoring enabled students to reconsider their written products and so

monitor their own writing. This in turn developed their metacognitive awareness and so helped them adopt corrective actions, even if on a limited scale. According to Xiao (2007), self-regulation techniques gradually develop learners' self-regulation strategies without external support, and self questioning is much more effective compared to the regulatory guidance provided by teachers. Ultimately, the students are hoped to become more responsible and autonomous in their learning.

4.3.4. The Teaching Platform

The researcher added the CAW component to the teaching framework with the purpose of considering the specific effect of technology-enhanced writing instruction on informants' achievement. Therefore, the researcher designed (within a national e-learning programme) a teaching platform (a moodle) to help learners write more accurately, more confidently, and ultimately more autonomously.

4.3.4.1. Technical Description

Before incorporating the use of the moodle, the teacher provided students with an e-mail address in order to contact her in order to have answers to given questions, or to receive feedback for written products. The teacher proceeded to this technology-based teaching online or offline. Online help could be given while being connected at the same time as students; or offline, when students send their written works and questions as e-mail. Offline guidance was carried out by correcting and commenting on learners' products, using colours or highlighters where necessary to attract students to the particular type of mistake and how it could be corrected. The main goal of this 'introductory' task was to help students perceive technology as a help and an ordinary component in their learning process. Yet, very few students established contact with the teacher through this e-mail address, which they explained as related to the lack of Internet connexion (either at home or on campus), or to the existence of a communication barrier between the students and the teacher. The following step was then to introduce them to the use of the teaching platform or moodle.

The platform consisted in academic software that offered a collection of writing lessons supported by links to web-sites, in addition to pdf and PowerPoint files to which students could refer. It also suggested a pretest and posttest to which students could answer and then proceed to self-assessment, since the answers to the tests were suggested in a separate file. In addition, the students could send their homework, questions, and personal writings, as well as contribute in the forum or chat rubrics. The following table illustrates the contents of the suggested e-learning platform:

First Year Writing Lessons	Language lessons for both Levels
- sentence elements - phrases, clauses and sentences - the English paragraph - unity and coherence - types of paragraph: an introduction - cause/effect paragraph - descriptive paragraph - cause/effect paragraph - examples paragraph - definition paragraph - argumentative paragraph - paragraph types activities	- punctuation and capitals - choppy and stringy sentences - run-ons and comma splice - parallel structure - fragments - wordiness (in addition to a bibliographical list of books and websites)

As a start, the researcher gave the password for students to log on the moodle and be a permanent member. This could be done by using their full name and e-mail so that they could be differentiated from other members. The teacher (as admin) could send a message to any of the registered students, and send comments on students' written products. In addition, the admin could suggest questions for discussion in the chat rubric. Furthermore, as with any moodle, the teacher (as admin of the moodle) can regularly check

- the number of visitors
- the type and frequency of downloading files
- the messages left to the admin, and

- the answers given in the forum or chat rubric

As for the writing tasks, they moved from writing sentences to writing paragraphs and to essays. The students were thus introduced to using the Internet for different purposes:

- information collection to prepare, understand, or enrich writing lessons,
- drafting, revising, and editing their written products, and
- communicating with their peers from their own group and even from other universities

4.3.4.2. Results Description

The students were not open for interaction at the beginning; however, after many encouragements to use the learning platform, the students later appreciated it and felt it was answering their learning demands. In fact, the posted lessons, with the web links helped many learners in understanding lessons and receiving answers to questions they could not ask the teacher or mates about. After the introduction of the learning platform as part of the metacognitive-awareness writing instruction, a greater interaction and integration of the students in the lessons were noticed.

Nevertheless, the implementation of the teaching platform witnessed many difficulties. Principally, there was no Internet on the campus; in addition, there was no computer laboratory. Furthermore, since most students lived on campus, and had no access to Internet; they could not fully profit from the platform unless they went home during weekends. Other learners had different access to Internet, from ‘no access’ to ‘daily access’. Consequently, they were obliged to turn to other options to solve their learning problems. On the other part, some learners even argued that the teacher gave them everything in class in terms of clear lessons and varied homework, and so they perceived no utility in connecting and asking for help through technology. This highlighted the necessity of reviewing the role of the teacher and reducing it to that of a guide, monitor and resource; moreover, s/he had to create the need for ICTs. Besides, the role of learners in a writing class had to be reexamined by giving them more responsibility in the making of the lessons.

Moreover, the students had to be trained into the use of ICTs as part of their learning.

4.3.5. Discussion of While-Instruction Phase Results

The second phase of the experiment attempted to consider the effect of the awareness-raising instruction that was paired with technology-enhanced teaching. The analysis of the different tools clarified students' difficulties at the level of writing and learning strategies. The researcher noted that at the beginning of the instruction, many students seemed not 'open' to writing, suffering for the writer's block. Also, many appeared stuck at the beginning and were even unable to choose a topic in a list. They didn't make difference between freewriting and brainstorming. They had little ideas or had many but did not know how to let them out. This could be explained that they had difficulties in activating background knowledge. Besides, the majority of students still wrote in freewriting style with an informal outline in addition to L1 and FL1 clear impact.

The analysis also enabled us to test the effectiveness of the suggested framework. To begin with, students enjoyed peer and self editing/evaluation practices as these could help informants perceive their own mistakes and weaknesses. They also gave them an opportunity to evaluate and give comments on their peers' writings. The metacognitive-raising instruction relied mainly on the explicit teaching of writing strategies through

- carefully organized steps inspired from CALLA,
- the use of self and peer editing/evaluation sheets,
- unstructured interviewing and conferencing, and
- regular correction and commenting on students' written products

This instruction contributed in building students' awareness. Particularly, with metacognition-raising sheets, the informants began developing their executive management skills by learning planning, monitoring, evaluating and revising one's own thinking processes and products. Such actions were aimed to help them regulate their writing and learning ultimately. Furthermore, scaffolded instruction was proven to be necessary for metacognitive instruction to lower students' anxiety in learning metacognitive knowledge and help them learn how to write in English. It

also helped shift learning responsibility from teacher to learner, and thus helped in achieving learner autonomy.

Nevertheless, the incorporation of the e-learning platform to the teaching framework witnessed material and cultural constraints, most importantly the crash of the server. In addition, the lack of necessary equipment or conditions in general (such as easy access to Internet) hindered the incorporation of the teaching platform, either in class or out of class. On the other hand, the communication barrier between the students and the teacher prevented the use of e-mails or online conferencing.

To sum up, the while-instruction practices contributed in building students' metacognitive awareness by developing each of the components of metacognition:

Person knowledge: by helping students perceive their strengths and weaknesses in their compositions and in their peers'.

Task knowledge: by helping students to have a better understanding of the importance of writing, the purpose of writing, and also standards of evaluation in writing.

Strategic knowledge: by encouraging students in

- following the three steps of the writing process
- expressing their ideas in different genres following different pre-writing techniques
- revising their outlines in line with the ideas that come to their minds while composing
- reflecting on the structure and language expressions of reading passages and using them as models for their writings
- revising and then editing their works using specific sheets
- reflecting on their peers' written products and providing comments and evaluation (even if not a professional basis)
- evaluating their writings and so monitoring their progress by using evaluation sheets

- attempting to solve problems related to their weaknesses in writing by turning to e-learning

It is also noteworthy that the while-instruction phase highlighted students' needs so far:

- Learning how to avoid the writer's block (by changing minds about what writing really is)
- Training in collaborative writing and learning through pair- and group-work
- Training in learning strategies and time management at university level
- Solving the problem of linguistic weaknesses via a more authentic teaching of grammar and vocabulary
- Training to write in content modules
- Receiving helpful tutoring from teachers
- Providing necessary equipment and environment for e-learning
- Being trained into learner autonomy.

4.5. Conclusion

The aim in the pre-instruction phase was to draw students' profile in both EXP and CTR groups prior to the implementation of the teaching instruction, in terms of motivation, attitude, learning and writing awareness, and self evaluation. The triangulation process permitted to deduce the metacognitive baseline for each sample. To sum up the different findings in the first phase, the informants appeared to come to university with a certain degree of writing and language awareness, but had a narrow view of what makes 'good ' writing and learning. In addition, they were unable to put the strategies they already knew into practice. One may conclude that they had an acceptable declarative knowledge but an unsatisfactory procedural knowledge (see Chapter 1, under 1.6.1.1.). Nevertheless, the analysis of the triangulation process results revealed learners' weaknesses in background, procedural and conditional knowledge. Therefore, these learners did not have a good metacognitive base in the types of knowledge; a fact that needed careful

consideration in order to improve their writing and learning proficiencies and achievements.

On the other hand, taking into account the fact that a general function of metacognitive strategies is planning, organizing and evaluating one's own learning, the implementation of the instructional framework required the application of a number of pedagogical steps for the purpose of raising students' metacognitive awareness in writing. The while-instruction phase revealed initially a positive impact of the metacognitive instruction on the informants. Particularly, self- and peer-editing sheets seemed to provide considerable help to shaping their awareness. The different interviews also indicated that they are more and more gaining insights into the writing process, and insights into their own development as writers and as learners too. Nevertheless, despite their improvement in some writing skills, they still displayed language weaknesses mainly related to grammar, vocabulary, and interference of formerly learnt languages (L1 and FL1). These language aspects have to be considered seriously in order to help students overcome their weaknesses. In addition, they suffered from poor self-management and study skills, a fact that is self-evident mainly during exams. What was particularly important was the great effectiveness of interviewing and conferencing in the writing classroom. The students could not only learn how to monitor their progress in writing and in learning, but could also establish fruitful communication canals between them, their teacher, and their peers. As to the teaching platform, many EXP students displayed little importance to computer/Internet writing at the beginning because of material and cultural constraints. Nevertheless, gradual introduction of writing lessons through the e-learning platform drew their attention to the possibility of improving their level inside and outside the university setting, and considering ICTs as a possibly compulsory component in their learning life.

The findings of the pre- and while-instruction phases should be cross-compared with those of the post-instruction phase in order to arrive to conclusive results that would answer the different research questions and thus confirm or not the research hypotheses.

CHAPTER FIVE

POST INSTRUCTION PHASE:

DATA ANALYSIS AND RESULTS

CHAPTER FIVE

POST-INSTRUCTION PHASE: DATA ANALYSIS AND RESULTS

5.1. Introduction

5.2. Post-Instruction Questionnaire

5.2.1. Design

5.2.2. Results

5.3. Post-Instruction Interview

5.3.1. Results Description

5.3.2. Results Discussion

5.4. Post-Instruction Scores Analysis

5.4.1. Initial Descriptive Analysis

5.4.2. Inferential Analysis

5.4.2.1. *t*-test Requirements

5.4.2.2. Writing Scores

5.4.2.3. EFL Scores

5.4.3. Scores Analysis: Summary and Discussion

5.5. Triangulation of Results and Discussion

5.6. Conclusion

5.1. Introduction

This chapter proceeded to the empirical investigation of the research topic by analysing the data obtained through the implementation of the metacognitive instruction with the teaching platform, and by considering the results of the different research instruments at the end of the instruction: the questionnaire, the interviews, and the scores analysis. The main focus of this (post-instruction) phase was to analyse the effect of the suggested instructional framework on the students in terms of awareness in writing, awareness in learning, and academic success. A comparative analysis of both EXP and CTR groups was necessary in order to arrive to conclusive remarks. This part therefore displays the results obtained from the informants in both samples on a quantitative and then on an inferential basis.

The data gathered via the different research tools were meant to help elucidate research questions and so confirm (or not) research hypotheses. For this reason, the different research tools were considered individually in a manner to examine the results and then proceed to the discussion. In the end, all the results were subject to the triangulation process and were the basis of subsequent pedagogical implications.

5.2. Post-Instruction Questionnaire

This questionnaire was administered at the end of the instruction, to informants of EXP and CTR groups (Appendix I). Below are the results obtained from the informants, with a focus on the (positive or negative) change that occurred in informants' responses for both groups. The obtained answers were subject to a comparative analysis on qualitative and quantitative bases, in order to objectively formulate pedagogical implications.

5.2.1. Design

The different questions in the questionnaire aimed at investigating two main independent variables: awareness in writing and awareness in learning. These questions can be classified according to the type of analysis and the type of awareness as follows:

	Awareness in Writing	**Awareness in Learning**
Quantitative Analysis	question 2 question 3 question 5 question 6 question 7 question 8 question 9 question 12 question 14	question 1 question 4 question 10 question 11 question 13
Statistical Analysis	question 6 question 8 question 14	question 10

The answers obtained via this questionnaire were first processed by coding the informants' answers, and by classifying the different replies into categories in such a manner to answer the research questions, and so support or reject the formulated hypotheses. For the sake of drawing more objective conclusions about the positive or negative effect of the implemented instruction on the development of metacognitive awareness of learners under study, some questions (with ordinal and not nominal) results were subjected to numerical and inferential analysis. This could be done by attributing scores to students' answers, using a Likert Five-Point Scale, and/or *Sign*-test to determine the validity of the

conclusions. The qualitative analysis, on the other hand, described the changes in the informants' learning and writing strategies after the implementation of the instructional framework.

The following were then the detailed results: EXP group's results before and after the implementation of the teaching instruction were contrasted with those of CTR group, to perceive the particular changes.

5.2.2. Results

Part 1: Person Knowledge (questions 1-6)

This rubric concerned what students knew about themselves as EFL learners. It comprised such concepts as self-awareness, attitudes and motivation, and self-evaluation.

Question 1: *What are the main difficulties you have encountered during your university studies till now?*

Table5.1. Awareness of own learning difficulties

	EXP				**CTR**			
	before		**after**		**before**		**after**	
Items	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**
Difficulty of lessons	25	**83,33**	17	**56,66**	11	**36,66**	9	**30**
Number of modules	18	**60**	17	**56,66**	18	**60**	13	**43,33**
Homework	6	**20**	14	**46,66**	4	**13,33**	11	**36,66**
Exams	6	**20**	12	**40**	8	**26,66**	7	**23,33**

AF: Absolute Frequency
RF: Relative frequency

Concerning the difficulties encountered during the academic year, the results were more or less similar for the groups under study. The informants agreed that the difficulty of lessons and the number of modules were major difficulties. However, both samples displayed an increase in the percentage concerning homework as a source of trouble. This may be due to the fact these learners experienced throughout the year the challenge of studying many modules at the same time. Many learners believed the time devoted for each module was not enough; in addition, they noticed the lack of organization either in time-tables or in the number of presentations they were confined to prepare. Other students equally referred to the big number of students which made learning difficult. One may remark that both groups shared the same difficulties and that their concerns had to be taken into consideration in order to secure better learning results.

Question 2: *Do you like writing in English?*

Table5.2. **Motivation and attitudes towards writing in English**

	EXP				**CTR**			
	before		**after**		**before**		**after**	
Items	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**
I don't like it at all	0	**0**	0	**0**	1	**3,33**	1	**3,33**
I don't like it	2	**6,66**	0	**0**	1	**3,33**	5	**16,66**
I have no feelings about it	1	**3,33**	6	**20**	6	**20**	7	**23,33**
I like it a lot	27	**90**	24	**80**	22	**73,33**	19	**63,33**

This question targeted the changes in students' attitudes and motivation. Most informants expressed positive attitudes towards writing in English despite a slight change in students' answers. More students in CTR didn't like writing, explaining their attitude by the difficulties they encountered while trying to write. They said they were overwhelmed by many rules and strict conditions of correctness. It can also be understood that they disliked writing because simply they might be not successful at it.

Question 3: *Is learning to write important for your success as a student?*

Table5.3. Perceived importance of writing for learning success

	EXP				**CTR**			
	before		**after**		**before**		**after**	
Items	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**
not really	0	**0**	1	**3,33**	1	**3,33**	2	**6,66**
to some extent	2	**6,66**	4	**13,33**	1	**3,33**	3	**10**
extremely	28	**93,33**	24	**80**	28	**93,33**	25	**83,33**

This question focused on the perceived importance of writing for learning. The results revealed that most students in both samples were aware of the importance that such a skill had for learning. Nevertheless, more students in CTR group perceived no utility for writing in the learning process; this may reveal a lack of interest that was accumulated after learning difficulties faced during the academic year. It also drove us to think about the role of learning beliefs in forging one's educational readiness and anticipations.

Question 4: *Please circle the right number to rate from **1 (no ability)** to **5 (excellent)** your current ability in English.*

Table5.4. Self-evaluation as learner

	EXP				**CTR**			
	before		**after**		**before**		**after**	
ability rate	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**
1	3	**10**	3	**10**	0	**0**	0	**0**
2	13	**43,33**	6	**20**	6	**20**	5	**16,66**
3	10	**33,33**	16	**53,33**	15	**50**	15	**50**
4	4	**13,33**	4	**13,33**	8	**26,66**	8	**26,66**
5	0	**0**	0	**0**	1	**3,33**	0	**0**

According to informants' answers, most students felt they were rather average in EFL in general. They explained that, though they were improving, they still had to upgrade written and oral skills. In addition, they thought they had to devote efforts to improve their grammar and vocabulary and avoid mistakes in writing or in speaking. Students in EXP sample displayed an important

improvement in positive self-evaluation, though. Besides, more EXP students felt their level had improved, while there seemed to be no change in CTR informants' self-evaluation. This feeling of success was likely to be an important drive for more improvement for EXP group.

Question 5: *Please circle the right number to rate from **1 (no ability)** to **5 (excellent)** your current ability in Writing.*

Table5.5. Self-evaluation as a writer

	EXP				**CTR**			
	before		**after**		**before**		**after**	
Items	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**
1	8	**26,66**	1	**3,33**	2	**6,66**	0	**0**
2	10	**33,33**	11	**36,66**	8	**26,66**	9	**30**
3	11	**36,66**	19	**63,33**	17	**56,66**	15	**50**
4	2	**6,66**	0	**0**	3	**10**	4	**13,33**
5	0	**0**	0	**0**	0	**0**	1	**3,33**

Results for this answer showed that though most students considered their level in writing was rather average, EXP informants' revealed a positive improvement in their self-evaluation. More EXP students felt that they improved in the second semester, while CTR students did not display such a progress. They (CTR) explained that they were developing slowly, and that they still made a lot of mistakes. In fact, all students expressed their worry about lacks in vocabulary, grammar and writing 'rules'. Insisting on form correctness could hinder the progress of both groups.

Question 6: *On a scale from **1 (cannot do it)** to **5 (completely sure I can do it)**, show how confident you feel when you perform the writing tasks necessary for your work.*

This question pushed learners to reflect on themselves as individual writers, and strived to find out the changes in students' confidence while performing writing tasks. As a Likert five-point scale was used to attribute scores to

informants' answers; the following table illustrates the results obtained with both groups:

Table5.6. Likert five -point scores related to self-evaluation with reference to writing tasks

	before	**after**
Referential Scores	**0 to 55**	**0 to 55**
EXP	11 to 33	24 to 40
CTR	22 to 49	15 to 44

Furthermore, the researcher calculated the *mean* of the scores attributed to informants' answers and then proceeding to a comparison between the *mean* of each group, before and after the instruction.

EXP

Table5.7. Change in EXP informants' confidence when performing writing tasks

	before	**after**
Min/Max scores over highest score possible	11-33 /55	24-40 / 55
Mean= $\frac{\textbf{sum of scores}}{\textbf{number of scores}}$	$\frac{714}{30}$ = 23,83	$\frac{938}{30}$ = 31,26
Percentage= $\frac{\textbf{Mean}}{\textbf{highest score possible}}$	$\frac{23,83}{55}$ =43,32%	$\frac{31,26}{55}$ =56,83%
Change= (mean 2 (after) – mean 1 (before))	+13,51%	

CTR

Table5.8. Change in CTR informants' confidence when performing

	before	**after**
Min/Max scores over highest score possible	22-49 / 55	15-44 / 55
Mean= $\frac{\textbf{sum of scores}}{\textbf{number of scores}}$	$\frac{936}{30}$ = 31,2	$\frac{1159}{30}$ = 38,63
Percentage= $\frac{\textbf{Mean}}{\textbf{highest score possible}}$	$\frac{31,2}{55}$ =58,9%	$\frac{38,63}{55}$ =54,3%
Change = (mean 2 (after) – mean 1 (before))	+7,43%	

Considering the scores obtained by the informants, after applying a Likert five-point scale, one could notice a significant improvement on the part of EXP group as opposed to CTR group. Additionally, since this question was also analysed statistically, the results revealed that the changes were inferentially significant for both samples, but EXP sample showed neatly better results. This suggested that the metacognitive instruction had a positive impact on students while performing writing tasks. The following tables illustrate the *Sign*-test (more precisely, Signed-ranks Wilcoxon test) results:

Table5.9. EXP self -evaluation *Sign*-test results

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between E cofidence in tasks 1 and E confidence in tasks 2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Table5.10. CTR self -evaluation *Sign*-test results

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between C confidence in performing tasks1 and C confidence in performing tasks2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,044	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Since the significance level is set at 0.05, and that the *Sign*-test sig is below 0.05 (0.00 for EXP and 0.44 for CTR), the inferential analysis for this question thus proved to be significant. In other words, both groups under study

showed considerable improvement, but if while comparing their change in means, EXP group took the lead.

Part 2: Task knowledge(questions 7 - 9)

This rubric concerned what learners thought about the purpose and importance of the writing tasks, and the required skills to fulfill the tasks.

Question 7: *When you write in English, to what extent do you consider the following items? (**1- topic 2- purpose 3- audience 4- structure)***

Table5.11. Importance given to writing concepts (EXP group)

Item	Not at all				To some extent				To a great extent				
	before		after		before		after		before			after	
	AF	RF	AF	RF	AF	RF	AF	RF	AF	RF		AF	RF
1	0	**0**	0	**0**	6	**20**	3	**10**	23	**76,6**		25	**83,33**
2	2	**6,66**	1	**3,33**	17	**56,66**	17	**56,66**	11	**36,6**		11	**36,66**
3	1	**3,33**	4	**13,33**	20	**66,66**	17	**56,66**	8	**26,6**		8	**26,66**
4	1	**3,33**	0	**0**	13	**43,33**	12	**40**	15	**50**		14	**46,66**

Table5.12. Importance given to writing concepts (CTR group)

Item	Not at all				To some extent				To a great extent				
	before		after		before		after		before		after		
	AF	RF	AF	RF	AF	RF	AF	RF	AF	RF	AF		RF
1	0	**0**	1	**3,33**	5	**16,6**	3	**10**	24	**80**	**26**		**86,66**
2	0	**0**	0	**0**	14	**46,6**	12	**40**	15	**50**	**17**		**56,66**
3	7	**23,33**	2	**6,66**	13	**43,3**	22	**73,3**	9	**30**	**5**		**16,66**
4	2	**6,66**	0	**0**	12	**40**	12	**40**	16	**53,3**	**17**		**56,66**

Students in both groups appeared to give more importance to content and structure organization than to purpose and audience. There was then no considerable amelioration in what concerns importance given to writing concepts. Both samples expressed foremost concern for topic and ideas expression. They also shared the same weakness concerning awareness of the importance of audience while writing. Students needed thus to have beliefs adjusted, mainly in what concerns writing readership. Nevertheless, the researcher could observe that EXP informants had a more balanced consideration of writing concepts. This is so despite the fact that the statistical analysis revealed that the change that occurred in informants' answers of both groups was not statistically significant since the *Sign*-test sig result was superior to the significance level 0.05 (0.162 for EXP and 0.324 for CTR), as these table may illustrate:

Table5.13. EXP importance given to writing concepts (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between E importance given to writing aspects 1 and E importance given to writing aspects2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,162	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Table5.14. CTR importance given to writing concepts (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between C imporancegiven top writing aspets1 and C importance given to writing tasks 2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,324	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Question 8: *What do you do/should you do most to improve your writing competence?*

Table5.15. Solutions opted for to improve as writers

	EXP				**CTR**			
	before		**after**		**before**		**after**	
	AF	**RF**	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**
Reading	22	**73,33**	21	**70**	24	**80**	26	**86,66**
Writing	26	**86,66**	29	**96,66**	28	**93,33**	29	**96,66**
Grammar/Vocabulary	25	**83,33**	15	**50**	26	**86,66**	23	**76,66**
Learning Journal	10	**33,33**	10	**33,33**	10	**33,33**	10	**33,33**
Collaborative Writing	11	**36,66**	10	**33,33**	17	**56,66**	12	**40**
Authentic Topics	17	**56,66**	13	**43,33**	14	**46,66**	18	**60**
Teaching Methodology	19	**63,33**	15	**50**	19	**63,33**	17	**56,66**
Computer use	14	**46,66**	12	**40**	15	**50**	3	**10**
Writing labs	13	**43,33**	3	**10**	4	**13,33**	3	**10**

As this question aimed at discovering changes in students' choices to improve in writing, the answers indicated that both groups of informants agreed on the importance of writing practice, reading, and teacher's methodology. Nonetheless, CTR group still focused on vocabulary and grammar while giving less importance to collaborative writing and to computer/Internet writing. This corresponded to earlier findings in which writing was seen as essentially 'error-free'. EXP group, on the other hand, decreased concentration on grammar and vocabulary and gave more value to writing practice. One may also notice how the answers had greatly decreased for CTR group in what concerned the option of computer use and that of collaborative writing. Additionally, a statistically positive amelioration could be remarked for EXP sample as opposed to an absence of amelioration for CTR group, as the tables may illustrate (the *Sign*-test sig for EXP (0.02) was inferior to the significance level 0.05, but for CTR (0.10) it was superior to 0.05):

Table5.16. EXP solutions opted for to improve as writers (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between E number of writing strategies1 and E number of writing strategies 2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,020	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Table5.17. CTR solutions opted for to improve as writers (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between C number of writing strategies 1 and C number of writing strategies2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,101	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

It is important to remind that the absence of technological facilities at the level of the campus led students not to perceive the utility or need for computer-assisted writing/learning. Learners' answers thus lead us to conclude there is a necessity of establishing e-learning tradition at university level; in addition, these learners need to develop socio-affective strategies with collaborative learning, as well as metacognitive learning with writing journals.

Question 9: *How do you prefer correction of your writing to be?*

Table5.18. Writing correction preferences

	EXP				**CTR**			
	before		**after**		**before**		**after**	
	AF	**RF**	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**
by yourself	4	**13,33**	4	**13,33**	8	**26,66**	5	**16,66**
by classmates	3	**10**	2	**6,66**	2	**6,66**	5	**16,66**
by the teacher	28	**93,33**	30	**100**	27	**90**	28	**93,33**

The answers to this question, which investigated learners' preferences about correction and feedback, revealed that students in both samples maintained the teacher as the principal source for correction, as they trusted the teacher for a more experienced, detailed, and objective feedback/correction. They also believed they were unable to see their own mistakes. Since the results were approximately the same, the *Sign*-test indicated that the changes were statistically insignificant for both samples. In other words, there were no substantial differences in informants' replies before and after the instruction (the *Sign*-test sig result was superior to 0.05 for both groups).

Table5.19. EXP writing correction preferences (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between E correction in writing 1 and E correction in writing 2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,750	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Table5.20. CTR writing correction preferences (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between C correcton 1 and C correction 2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,580	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

This resulted in the belief that self-correction (metacognitive strategy) requires much training and practice; it is more than a matter of accepting self or others' comments/evaluation. Therefore, all students need to be made aware of the different options for writing correction (self- and peer- correction) in order to lessen focus on the teacher (socio-affective strategies), and so achieve learner autonomy.

Part 3: Strategic knowledge(questions 10-14)

This rubric specifically targeted informants' reflection on their own learning and writing strategies.

A/ Learning Strategies

Question 10: *What strategies have you often adopted for your studies this year? Tick beside the right answer(s).*

Table5.21. Learning strategies adopted by learners

	EXP				**CTR**			
	before		**after**		**before**		**after**	
Items	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**
Note taking	21	**70**	25	**83,33**	28	**93,33**	27	**90**
Peer learning	7	**23,33**	12	**40**	12	**40**	14	**46,66**
Reading	17	**56,66**	11	**36,66**	17	**56,66**	10	**33,33**
Note making from reading	15	**50**	12	**40**	18	**60**	13	**43,33**
Writing paragraphs/ essays	10	**33,33**	8	**26,66**	12	**40**	7	**23,33**
Asking questions	23	**76,66**	18	**60**	22	**73,33**	19	**63,33**
Lesson summarising	16	**53,33**	11	**36,66**	22	**73,33**	18	**60**
Internet	15	**50**	18	**60**	20	**66,66**	17	**56,66**

Table5.22. EXP use of learning strategies (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between E number of learning strategies1 and E number of llearning strategies2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,580	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Table5.23. CTR use of learning strategies (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between C number of learning strategies1 and C number of learning strategies 2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,141	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

This question was about strategies adopted by students for EFL learning. The results clarified that the most widely used strategies were note-taking and asking questions, while the least used were writing, learning with peers, and reading, as illustrated in the following table:

Most used		**strategies**		**Least used**		**strategies**	
EXP		**CTR**		**EXP**		**CTR**	
before	**after**	**before**	**after**	**before**	**after**	**before**	**after**
asking questions -taking notes reading	-Taking notes -asking questions Internet	-taking notes -asking questions -lesson summar-ising	-taking notes -asking questions -lesson summar-ising	writing -peer learning -making notes while reading	writing reading lesson summar-ising	-writing -peer learning -reading	writing reading -peer learning

These results gave the impression that learners in both samples used certain learning strategies at the expense of others. For example, informants showed little concern for writing as a learning strategy, explaining that they did not have enough time to write because of homework and because of the many presentations they had to prepare. They neglected the role of reading too. One would notice, yet, that EXP group began to perceive Internet and peer learning as possible help for their learning, while CTR group maintained the application of the same kind of strategies. Both groups, however, did not apply varied strategies: the *Sign*-test sig result was superior to the significance level 0.05, for EXP and CTR groups.

Question 11: *What aspect(s) of the language do you think you still need to improve?*

This question had for objective to investigate students' awareness of possible solutions for improvement. It also aimed at checking their self-regulation and self-management skills. According to the answers, most students admitted they still needed to improve in the four skills in addition to grammar and vocabulary. They also maintained lacks in content modules, such as linguistics, literature and civilization. The most cited answers are classified in the following table in decreasing order:

EXP		CTR	
before	**after**	**before**	**after**
-writing - reading -speaking -content modules -grammar and vocabulary -listening	-content modules - grammar -speaking - listening - writing -vocabulary - punctuation and spelling	- writing - reading -speaking - grammar - listening - vocabulary -content modules	- writing - speaking - listening - reading - content modules - pronunciation - spelling

The major difference that could be noticed while comparing the answers of both samples was that CTR continued to consider writing as the most important aspect of language to be improved, while EXP mentioned writing only among the last positions. This would be understood as the result of the confidence the students under EXP gained after the instruction was implemented, the fact which claims the success of the instruction. One might also see that both groups expressed their desire to progress in listening skill. This might bring the assumption that learning difficulties were directly related to a defect in listening skill, and to the fact that students might have a problem of understanding (input) before having a problem of production (output).

Question 12: *Do you regularly write paragraphs/essays in other modules to improve your proficiency level?*

Table5.24. Using writing as a learning tool in other modules

	EXP				**CTR**			
	before		**after**		**before**		**after**	
Items	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**
Yes	20	**66,66**	17	**56,66**	18	**60**	9	**30**
No	10	**33,33**	10	**33,33**	12	**40**	21	**70**

According to the answers in both samples, most students in EXP declared to write in other modules because of a perceived utility of writing for writing proficiency improvement and even for retaining information. But, the majority of students in CTR said they did not, explaining that they were unable to organize their time with so many modules, suggesting thus a pedagogical mismanagement. Others even said they were afraid of writing; while others admitted they wrote only when they were asked to; the fact that led us to underline the role of the teacher in inculcating the writing habit into learners. On the whole, the researcher could notice that the individual results were roughly the same for EXP group, but that there was a considerable increase in the number of negative answers of CTR group.

Question 13: *When you have trouble while learning, what do you usually do?*

Table5.25. Learning-Related Problem-Solving Strategies

	EXP				**CTR**			
	before		**after**		**before**		**after**	
Items	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**	**AF**	**RF**
individually	11	**36,66**	17	**56,66**	16	**53,33**	13	**43,33**
with classmates	10	**33,33**	17	**56,66**	18	**60**	15	**50**
asking the teacher	16	**53,33**	18	**60**	18	**60**	11	**36,66**

This question targeted learners' problem-solving strategies. The answers revealed that students under EXP made use of more options for problem-solving than CTR students. In addition, EXP sample displayed an increase in the three options, suggesting that they acquired a sense of responsibility of learning and the possibility of sharing responsibility with mates. At the same time, CTR sample exhibited a decrease in the application of the three options. They also seemed to have changed the focus from teacher, as a major source of guidance and help, to mates. However, an inferentially significant improvement was noted on the part of EXP but not on the part of CRT, as the tables below may explain (the *Sign*-test sig result for EXP (0.03) was inferior to the significance level 0.05 while it was superior for CTR (0.247). This suggested that EXP informants gained some learning strategies that permitted them to attempt different problem solving options.

Table5.26. EXP learning-related problem solving strategies (*Sign*-test Results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between E problem solving 1 and E problem solving 2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,003	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Table5.27. CTR learning-related solving strategies (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between C problem solving 1 and C problem solving 2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,247	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

B/ The Writing Process Proper

Question 14: *Please read each statement and tick in the appropriate column (1, 2, 3, 4, or5) that tells how true of you the statement is.*

The last question explored changes in the writing strategies employed by students before, during and after writing. Because of the complexity of answers for this question, the informants' answers were attributed scores and were subjected to inferential analysis, by applying a Likert five point scale.

a) Before I start writing in English

Table.28. Likert five-point scores related to pre-writing phase

	before	**after**
Referential Scores	0 to 35	0 to 35
EXP	9 to 30	18 to 30
CTR	10 to 32	14 to 31

The results showed that EXP students exhibited inferentially significant improvement in the pre-writing phase whereas CTR group noted no amelioration, as the following tables demonstrate (the *Sign*-test sig result for EXP (0.014) was inferior to the significance level 0.05, but it was superior for CTR (0.737)).

Table5.29.CTR pre-writing strategies (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between E prewriting1 and E prewriting2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,014	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Table5.30. EXP pre-writing strategies (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between C prewriting 1 and C prewriting 2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,737	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

b) While writing

Table5.31. Likert five-point scores related to while-writing phase

	Before	**After**
Referential Scores	**0 to 60**	**0 to 60**
EXP	16 to 58	29 to 50
CTR	27 to 57	13 to 48

The students' answers also showed a significant progress in EXP learners' while-writing strategies, but no progress in those of CTR group but rather a decline. These tables best illustrate this finding (*the Sign*-test sig result for EXP

(0.05) was equal to the significance level 0.05, while it was superior for CTR (0.863)).

Table5.32. EXP while-writing strategies (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between E writing1 and E writing 2 equals 0	Related-Samples Wilcoxon Signed Rank Test	,005	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Table5.33. CTR while-writing strategies (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between C writing1 and C writing2 equals 0	Related-Samples Wilcoxon Signed Rank Test	,863	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

c) When revising

Table5.34. Likert five-point scores related to post-writing phase

	Before	**After**
Referential Scores	**0 to 50**	**0 to 50**
EXP	19 to 41	25 to 40
CTR	18 to 39	18 to 45

A similar improvement was observed in the post-writing or revising phase for the EXP sample as opposed to CTR one, as these tables show (*the Sign*-test sig result for EXP (0.005) was inferior to the significance level 0.05, but it was superior for CTR (0.784).

Table5.35. EXP post-writing phase (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between E postwriting 1 and E postwriting 2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,005	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Table5.36. CTR post-writing phase (*Sign*-test results)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between C postwriting1 and C postwriting2 equals 0.	Related-Samples Wilcoxon Signed Rank Test	,784	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

On the whole, the results indicated that the most significant development in EXP group was noticed in the pre-writing phase, meaning that these students ameliorated their pre-writing strategies but needed to work more on composing and revising strategies. On the contrary, CTR group did not achieve any progress in the three steps of the writing process. These results best demonstrated the positive impact of the instructional framework on EXP learners.

To sum up, according to the quantitative and the statistical analysis of the informants' answers, the researcher observed that EXP group outperformed CTR group in a number of questions and so a qualitative progress was noted in

- Motivation and perceived utility of writing for learning (**questions 2 and 3**)
- Perceived self-efficacy in learning and in writing (**questions 4 and 5**)
- Self-monitoring to distinguish language aspects that have to be improved (**question 11**)

A statistically significant improvement was particularly noticed on the part of EXP but not on the part of CRT, mainly in what concerned

- Perceived self-efficacy while performing given writing tasks **(question 6)**
- Solutions opted for to improve as writers **(question 8)**
- Learning-related Problem-solving strategies **(question13)**
- Writing strategies employed before, during, and after writing **(question 14)**

However, the research results displayed a lack of improvement for both samples in the remaining questions:

- Perceived learning difficulties at university level **(question 1)**
- Considering specific aspects in writing, mainly readership (**question 7)**
- Correction and feedback in writing **(question 9)**
- Learning strategies adopted for learning EFL (**question10)**
- Writing in other modules **(question 12)**

The increase in percentages may be explained by the increase in learners' awareness in writing and in EFL learning as a positive result of the instruction they underwent. We would partially conclude that EXP informants have shown progress in the three components of metacognitive knowledge, in comparison to their results in the first questionnaire. More particularly, they proved to have gained strategic

knowledge in writing as a process and in problem-solving. It is quite probable that, with the help of the metacognitive instruction, these students acquired self-confidence and self-knowledge which helped them to develop writing awareness and learning awareness. It is noteworthy that students' answers in both answers alluded to their pedagogical needs in writing and in learning; these needs had to be catered for. These findings still had to be supported by, and cross-compared with, those of other research instruments.

5.3. Post-Instruction Interview

The third interview was conducted with the EXP group before the second series of exams at the end of the instruction. It aims at evaluating the progress of informants' awareness in writing and learning**.** To back up the questionnaire, the interview was chosen as an additional research instrument in order to give more room for students to express their ideas and thus uncover other aspects of their writing and learning strategies. This was believed to bring evidence of the development of their metacognitive awareness.

The interview was made up of four main questions directly related to two research variables: awareness in writing (questions 3 and 4) and awareness in learning (questions 1 and 2). They were also related to the three components of metacognition: person knowledge (questions 1 and 2), task knowledge (question 3), and strategic knowledge (question 4). This interview would help elucidate two major questions in this research work that principally put under scrutiny the relationship between the explicit strategies-instruction and metacognitive awareness in writing, on the one side; and the relationship between awareness in learning and awareness in writing, on the other side.

5.3.1. Results Description

Question 1: *According to you, what do successful learners of English do?*

This question strived to consider learners' beliefs about successful EFL learning strategies. Most students mentioned mainly reading as the primary source of success (60%). In the second position, they maintained out of class activities (30%), such as regularly revising lessons, doing homework, and undertaking research using books or Internet. Good learners were also believed to write regularly (25%). In addition to being serious, attentive in class, asking for clarification whenever necessary, successful learners were also said to have a strong will to succeed in this language. What was equally seen as pertinent was that good students practised in the four skills (25%) and worked to enrich their vocabulary. More particularly, informants insisted on speaking in English more often and listening to music or watching movies in English. What was more striking was that informants mentioned seeking teachers' guidance without depending completely on them, and being self-dependent and equally self-confident.

Question 2: *What are some of the things that help you learn English?*

The second question attempted to dig into students' personal learning experience and make them self-evaluate their own strategies. Reading was also mentioned in this question as a major help for students (50%). Second, informants cited listening to music or watching movies in English (33%). Thirdly, they believed that writing regularly at home (26%) and speaking in English with friends or with native speakers (20%) had helped them improve in English too. In addition, they admitted to use Internet for study or for communication (40%), and dictionaries for vocabulary improvement (26%). They also insisted on regular practice inside and outside university along with regular revision and memorization of lessons. Other personal reasons concerned self-confidence, family support and material conditions (supportive environment). Moreover, they alluded to the role of the teacher in helping them progress.

Question 3: *What is the most important lesson to retain/remember in writing?*

In this question, the goal was to figure out informants' beliefs about writing strategic knowledge. Though this question was expressed in general terms in order not to restrict students to a particular type of answers, they mostly mentioned technical writing lessons such as following the three steps of the writing process (60%), writing correct and varied sentences (20%), working on punctuation (23%), and on parallel structure (10%). They also mentioned outlining and paragraph organization.

Question 4: *How do you intend to revise for the exam of writing and for the other exams?*

This question investigated informants' self-management and learning-management strategies. Most informants expressed their intention to revise lessons (56%), memorize them (43%) and do related activities (30%). Some students even suggested making short summaries of lessons (20%) to facilitate their memorization. Other students advocated the necessity to write paragraphs (40%) while others chose asking for clarification from the teacher (10%) for unclear lessons. In addition, some students made allusion to the possibility of revising with peers (10%) or individually. Besides, self-confidence was equally mentioned as an element of success in exams.

5.3.2. Results Discussion

Students' answers to the different questions helped shed light on the degree of progress they achieved in their metacognitive awareness and the impact of such progress on their strategic learning behaviour. Informants' answers could be classified into categories by relating them first to the three components of metacognition what would enable making the link with two research variables: awareness in writing and awareness in learning.

As part of person knowledge, EXP learners referred mainly to cognitive strategies, exemplified by reading and writing practice, rehearsal, memorization, use of dictionaries and the use of ICTs for research and communication. In addition, they evoked socio-affective strategies which involved learning English by interacting (via speaking and listening) with mates, or with native speakers for more authenticity. They also practised resourcing by trying to learn EFL through music or through movies. Furthermore, though the informants acknowledged the role of the teacher, they alluded to the necessity for learners of being self-reliant and self-confident. They showed thus the development of a metacogntive strategy: self-management.

As for task knowledge, the students believed that what was more important in writing was to learn the three steps of the writing process; and more particularly, outlining (metaconitive strategies). They also recognized the necessity of improving the composing practice by working on the improvement of sentence structure, paragraph organization, punctuation, and parallel structure (rhetorical strategies).

As far as strategy knowledge is concerned, the informants expressed their intentions to use such cognitive strategies as rehearsing, retrieving (after memorizing lessons), and summarizing. They also mentioned socio-affective strategies exemplified by peer learning. In addition, these learners alluded to individual revision (self-reliance) or to asking for help from their teachers in case of need (problem solving). They insisted again on self-confidence as key to success in writing and in learning (self-management); therefore, they advocated metacognitive strategies.

On the whole, and in comparison with the preceding interviews, one could notice EXP learners' progress in writing and learning strategies. By the end of the instruction, they seemed to have gained writing and learning awareness. We could even say that the instruction helped learners reshape their beliefs about 'good' writing. They thus valued writing as process and organization over writing as a set of ideas correctly written. In addition, they tended to opt for more varied learning strategies (socio-affective, cognitive and metacognitive). Moreover, they perceived

learning experience as the fruit of efforts devoted inside and outside university setting, involving different materials with the help of ICTs, and involving different partners: teacher, peers, and self. More importantly, they became aware of the necessity of self-reliance and autonomy for successful writing and learning, supporting as such Zhang's similar research findings (2010). The results of the interview corroborated major findings of the questionnaire, and supported the positive impact of the instruction on learners, but they needed to be approved by the next investigative instrument to check the effect of the metacognitive instruction on students' academic achievement through scores analysis.

5.4. Post-Instruction Scores Analysis

The post instruction scores analysis consisted in the post-treatment evaluation of learners' academic achievement. This part was concerned principally with the analysis of the marks obtained by EXP and CTR groups in writing exams and their semestrial averages in EFL, and the focus was on the change that occurred in learners' grades in both aspects. Consequently, the targeted variable was 'academic achievement'.

For the sake of approaching the analysis from different angles, the researcher attempted first an initial investigative procedure based on a simple calculation of the treatment effect. As a result, a quantitative (descriptive) analysis was undertaken before moving to the statistical (inferential) analysis of the different results. Besides, since all the data concerned in this part are scores, they were thus interval data to be analysed using parametric measures. It follows that the change in the informants' writing and learning achievement was considered by comparing the change in the *mean* of each sample, and then by using the *t*-test for both writing and EFL results. The various calculations in the quantitative and inferential parts were performed by the SPSS programme. This part dealt with each sample separately before drawing conclusions.

5.4.1. Initial Descriptive Analysis

In the case of experimental (or hypothesis testing) research studies, Kothari (2004: 42) suggests a way of calculating the treatment effect which was applied for our case, where A, B, C, and D represent respectively the *mean* of EXP and CTR groups before and after treatment. It follows that the first step to proceed with this analysis was to calculate the mean of Writing and EFL for each sample before and after the instruction. The following figure represents the descriptive analysis procedure according to (Kothari, 2004:42):

	Pre-Treatment	**Post-Treatment**
EXP	**Mean Result A**	**Mean Result B**
CTR	**Mean Result C**	**Mean Result D**
Treatment Effect= (B – A) – (D- C)		

The treatment would be considered positive for EXP group if the final result obtained was positive (+) and considered as negative effect if the final result was negative (-). This calculating procedure was applied to calculate the impact of the suggested instruction (developing learners' metacognitive awareness) on both writing and EFL achievement.

Table5.37. Descriptive analysis results

	Writing Achievement	**EFL Achievement**
EXP	A= 11,53 and B= 11,65 , so B - A= 11,65 - 11,53 = **(+ 0,12)**	A= 11,54 and B= 12,19 , so B - A= 12,19- 11,54 = **(+ 0,65)**
CTR	C= 10,40 and D= 10,20, so D - C= 10,20- 10,40 = **(- 0,20)**	C= 10,98 and D= 11,33, so D - C= 11,33 -10,98 = **(+0,35)**
Treatment Effect	(B-A) -(D-C)= (+0, 12) - (- 0,20) = **(+ 0,32)**	(B-A) - (D-C) = (+0,65) - (+ 0,35) = **(+ 0,30)**

The results indicated that in writing, EXP sample improved with a change of (+0,12) while CTR sample did not improve with a change of (- 0,20). The results also revealed that both EXP and CTR groups improved in EFL, though EXP group attained a better improvement with a change of (+ 0,65) than CTR group with a change of (+0,35). Besides, the treatment effect was positive for EXP group in both writing achievement (+0,32) and in EFL achievement(+0,30), but the researcher could not draw conclusions about the power of this effect. There was a need then to move to the quantitative and inferential analyses.

5.4.2 Inferential Analysis

As this was an experimental study involving students in a pre- and a post-treatment evaluation, the statistical procedure that was appropriate in case of repeated measures was the paired-sample *t*-test. It was calculated automatically by the SPSS programme. In addition, a null hypothesis (H_0) is formulated for each sample and for each of the variables: writing or EFL. The research results would permit to retain or not the null hypothesis, and so support or reject the alternative hypothesis (*Ha*).

5.4.2.1. *t*-test Requirements

The *t*-test has a number of assumptions which have to be met so that its findings are considered reliable:

- the data are scores,
- the data are dependent
- the data in the two samples are normally distributed so that the *mean* is an appropriate measure of central tendency.

While considering the two groups under study, we could make sure that all the requirements have been met since

- the comparison was between scores (interval data) for both writing scores and EFL semestrial averages
- the data were dependent since the same sample was measured twice for each group
- the normality of distribution was evaluated and proved for each sample group separately, by applying the One-sample kolmogorov-Serminov test, as the following tables may illustrate:

Table5.38. Normality of distribution within the EXP group

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of EXP writing exam1 scores is normal with mean 11,53 and standard deviation 1,92	One-Sample Kolmogorov-Smirnov Test	,883	Retain the null hypothesis.
2	The distribution of EXP writing exam2 scores is normal with mean 11,65 and standard deviation 1,72	One-Sample Kolmogorov-Smirnov Test	,647	Retain the null hypothesis.
3	The distribution of EXP semestrial averages1 is normal with mean 11,54 and standard deviation 0,94	One-Sample Kolmogorov-Smirnov Test	,999	Retain the null hypothesis.
4	The distribution of EXP semestrial averages2 is normal with mean 12,19 and standard deviation 0,99	One-Sample Kolmogorov-Smirnov Test	,708	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Table5.39. Normality of distribution within the CTR group

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of CTR writing exam 1 scores is normal with mean 10,40 and standard deviation 2,00.	One-Sample Kolmogorov-Smirnov Test	,881	Retain the null hypothesis.
2	The distribution of CTR writng exam2 scrores is normal with mean 10,20 and standard deviation 2,58.	One-Sample Kolmogorov-Smirnov Test	,683	Retain the null hypothesis.
3	The distribution of CTR semestrial average1 is normal with mean 10,9 and standard deviation 1,56.	One-Sample Kolmogorov-Smirnov Test	,882	Retain the null hypothesis.
4	The distribution of CTRsemestrial average2 is normal with mean 11,3 and standard deviation 1,67.	One-Sample Kolmogorov-Smirnov Test	,925	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

Consequently, according to these tables, the null hypothesis was formulated in a way to affirm the normality of distribution if the significance level was superior to 0.05. As may be noticed, the tables confirmed the normality of distribution for EXP and CTR writing and EFL scores, before and after the experimental study (*p*-value is superior to any result of this test). Therefore, the test could be accepted as a research tool, and we could formulate the corresponding null and alternative hypotheses accordingly. Besides, it was a question of a two-tailed hypothesis because no specific direction is defined for the change in means; in other words, the change was not precised to be positive or negative.

Before we begin the calculation of the *t*-value, we have to set a risk level, called the *alpha level.* It is used to test the significance of test so as to be sure the result is not due to chance. In most social research, the alpha level (α) is set at 0.05 (Hatch and Lazaraton, 1998; Kothari, 2004; and Troshim, 2006). As a result, if the *p*-value sig.(2-tailed) is lower than 0,05, (H_0) is rejected and *Ha* retained. However, if *p*-value sig.(2-tailed) is higher than 0.05, (H_0) is retained and so *Ha* rejected.

5.4.2.2. Writing Scores

This part concerned the description of the results obtained by the EXP and CTR groups in writing. More precisely, it compared the means of both samples in first and second semesters descriptively and then inferentially, before arriving at a comparative analysis of the change in academic achievement concerning writing for both groups under study.

1- <u>EXP GROUP</u>

A/ Descriptive Statistics

The following table displays the results of the EXP group.

Table5.40. Descriptive statistics of EXP writing exam means

	N	Min	Max	Mean	Std. Deviation
EXP writing exam1 scores	30	7,50	15,50	11,5333	1,92055
EXP writing exam2 scores	30	8,50	16,00	11,6500	1,71781
Valid N (listwise)	30				

The results related to writing scores indicated that the EXP group had improved:

EXP Mean 2 (11,65) > EXP Mean 1 (11,53)

These results revealed a positive impact of the metacognitive instruction on the informants of the EXP sample. Despite this, we had to check if this improvement was statically significant. This is described in the following step.

B/ Inferential statistics: Paired sample t-test

We began by formulating the null and alternative hypotheses:

H_0: there will be no difference between the pretreatment and post treatment writing scores of the EXP group

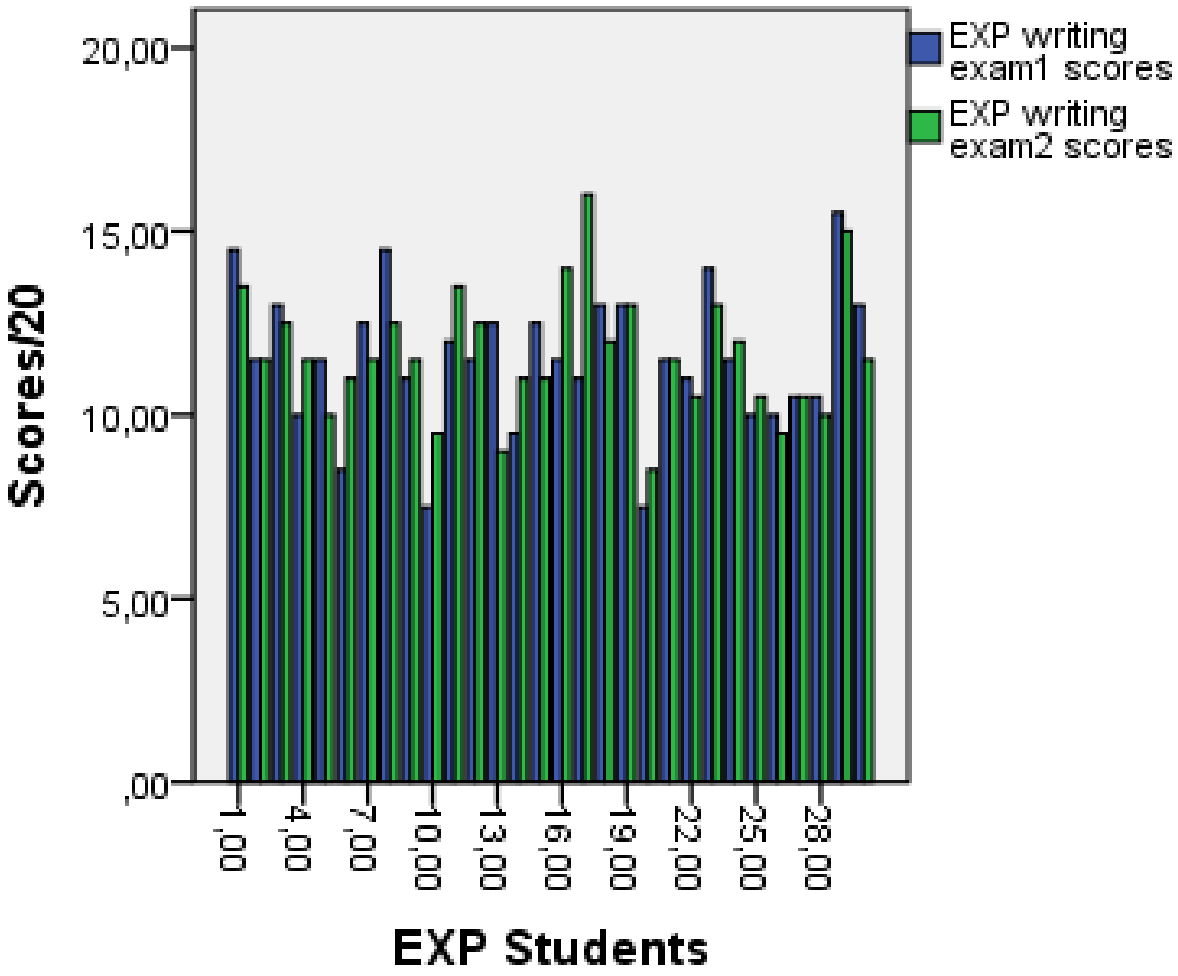
*H*a: there will be a difference between the pretreatment and post treatment writing scores of the EXP group

The following is the outcome result of the paired-sample *t*-test applied with EXP group; the table precises the *t*-value with the corresponding *p*-value (sig 2-tailed)

Table5.41. Paired Samples t-test results of EXP writing exam means

			Pair 1
			EXP writing exam1 scores - EXP writing exam2 scores
Paired Differences	Mean		-,11667
	Std. Deviation		1,64884
	Std. Error Mean		,30104
	95% Confidence nterval of the Difference	Lower	-,73235
		Upper	,49902
t			-,388
df			29
Sig. (2-tailed)			,701

The results in the table indicated that the *t*-value is -0,388 with the significance test *p*-value sig. (2-tailed) = 0,701; that is *p*-value > 0, 05. That is to say H_0 was retained and *Ha* was rejected. These results revealed that the improvement in EXP group writing scores was not statistically significant. We concluded thus that there was a positive impact of the metacognitive instruction on the writing scores of EXP in descriptive terms, but not in statistical terms. The following histogram illustrates the results for EXP group.



Histogram 5.1. EXP Group Pre- and Post-treatment Writing Scores

1) <u>CTR GROUP</u>

A/ Descriptive statistics

This table displays the results of the comparison of the pre- and post-treatment writing scores for the CTR group.

Table5.42. Descriptive statistics of CTR writing exam scores

	N	Min	Max	Mean	Std. Deviation
CTR writing exam 1 scores	30	7,00	14,50	10,4000	1,99741
CTR writing exam2 scores	30	5,50	15,50	10,2000	2,58177
Valid N (listwise)	30				

These findings suggested that the traditional instruction undergone by CTR group did not lead to a positive improvement in the informants' achievement. On the contrary, we noticed a regression in their level. Once again, we had to check, if this decline in achievement was statistically significant.

B/ Inferential statistics: Paired-sample t-test

We can state null and alternative hypotheses as follows:

H_0: there will be no difference between the pretreatment and post treatment writing scores of the CTR group

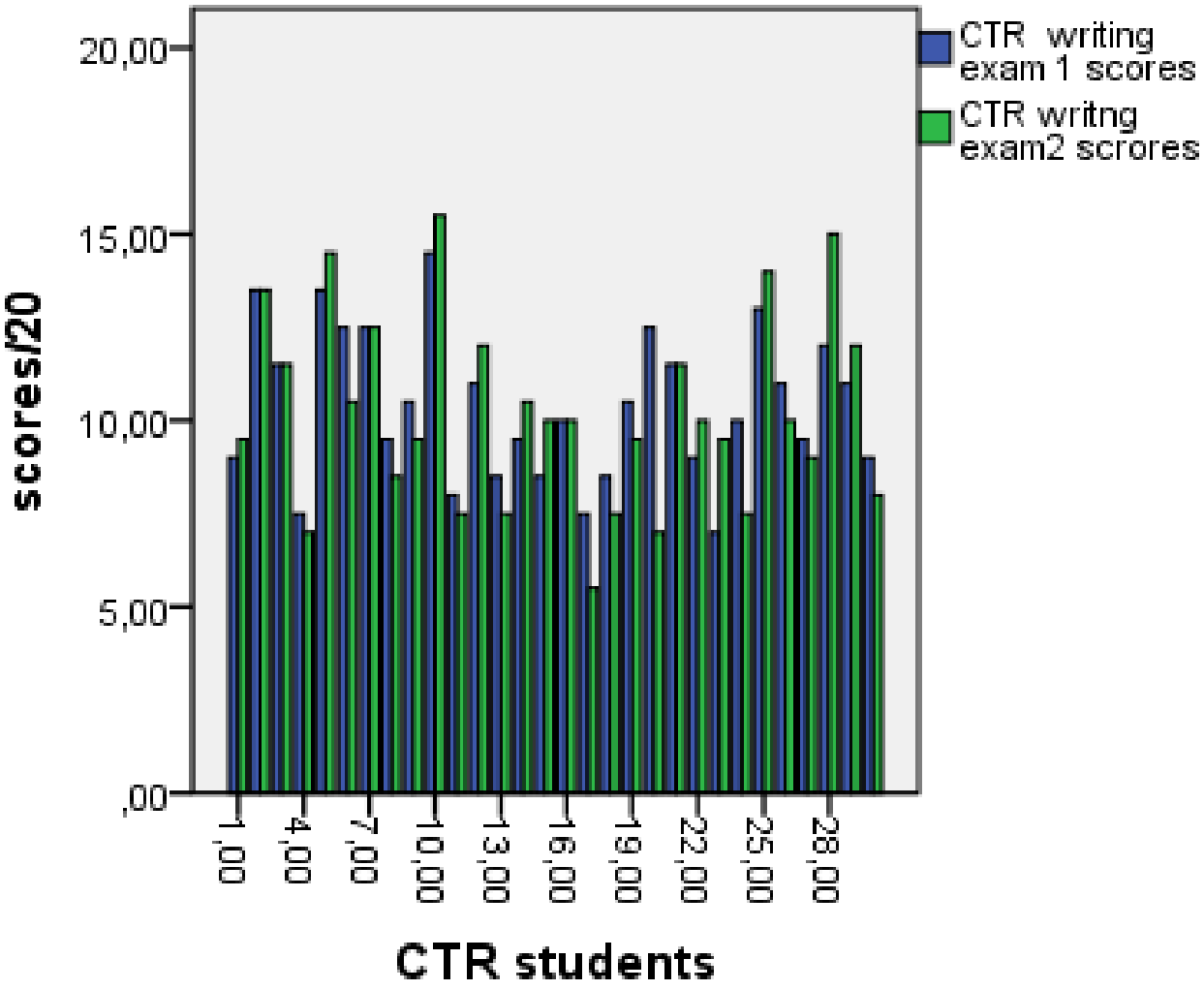
Ha: there will be a difference between the pretreatment and post treatment writing scores of the CTR group

The following is the outcome result of the paired-sample *t*-test applied with CTR group.

Table5.43. Paired samples *t*-test results of CTR writing exam scores

			Pair 1
			CTR writing exam 1 scores – CTR writng exam2 scrores
Paired Differences	Mean		,20000
	Std. Deviation		1,61672
	Std. Error Mean		,29517
	95% Confidence Interval of the Difference	Lower	-,40369
		Upper	,80369
t			,678
df			29
Sig. (2-tailed)			,503

The results in the table show that the *t*-value was -0,678 with the significance test *p*-value sig. (2-tailed) = 0,503; that is *p*-value > 0, 05. That is to say H_0 was retained and *Ha* was rejected. In other words, the decline in CTR group writing scores was not statistically significant. These results suggest that the traditional instruction undergone by CTR group did not lead to a positive improvement in the informants' achievement. This histogram exhibits the obtained results:



Histogram 5.2. CTR Group Pre- and Post-treatment Writing Scores

5.4.2.3. EFL Scores

This part concerned the description of the results obtained by the EXP and CTR groups in EFL. More precisely, it compared the means of both samples in first and second semesters quantitatively and then statistically, before arriving at a comparative analysis of the change in academic achievement concerning writing for both groups under study.

1) <u>EXP GROUP</u>

A/ Descriptive statistics

The following are the results of comparison between the first and second semester means (averages) concerning the EXP sample.

Table5.44. Descriptive statistics of EXP semestrial averages

	N	Min	Max	Mean	Std. Deviation
EXP semestrial average1	30	9,61	13,84	11,5400	,93795
EXP semestrial average2	30	10,18	14,27	12,1927	,98715
Valid N (listwise)	30				

The results of the descriptive statistics indicated that

EXP averages2 (12,19) > EXP averages 1 (11,54)

These results revealed a positive impact of the metacognitive instruction on the informants of the EXP sample. In other words the informants' end-of-semester averages improved, yet we had to confirm this improvement statistically by applying the *t*-test.

B/ Inferential Statistics: Paired-Sample t-test

The null and alternative hypotheses were formulated:

H_0: there will be no difference between the pretreatment and posttreatment EFL scores of the EXP group

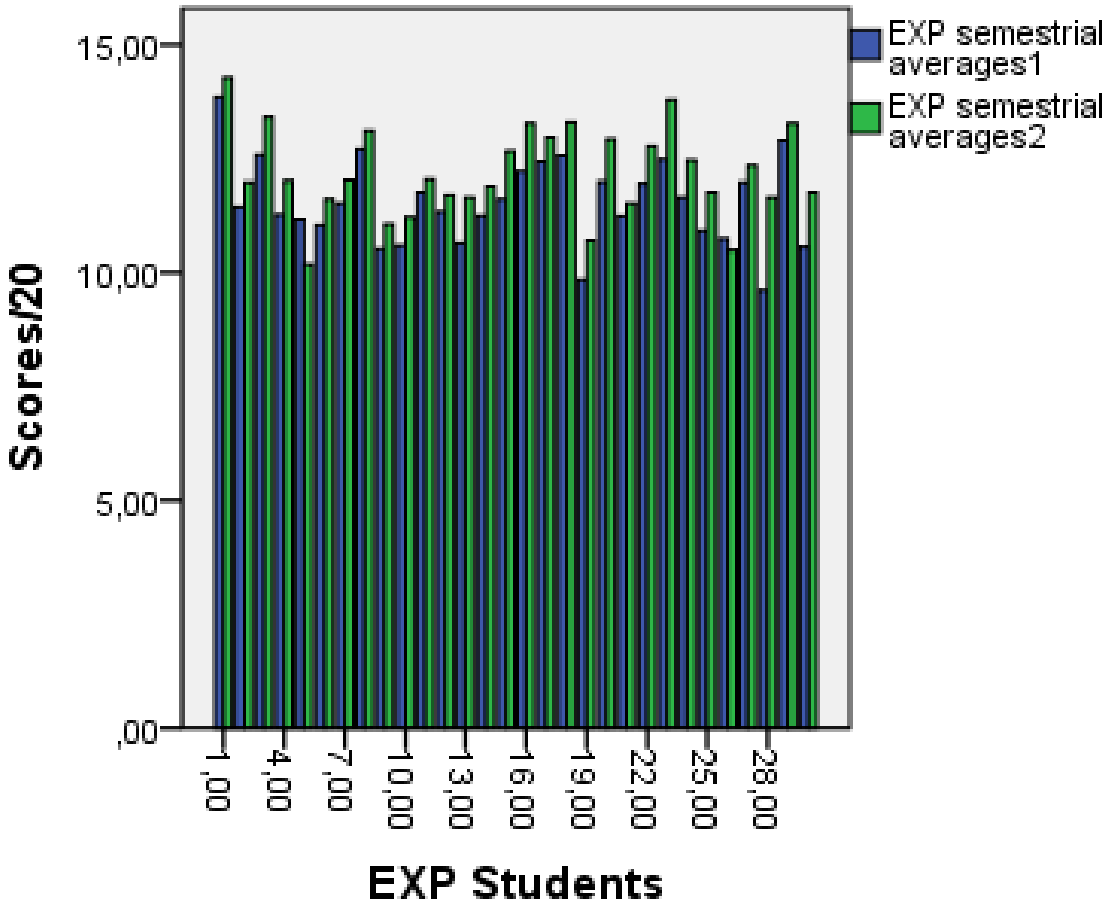
Ha: there will be a difference between the pretreatment and posttreatment EFL scores of the EXP group

This table displays the detailed results of the t-test:

Table5.45. Paired samples *t*-test results of EXP semestrial averages

			Pair 1
			EXP semestrial average1 – EXP semestrial average2
Paired Differences	Mean		-,65267
	Std. Deviation		,50994
	Std. Error Mean		,09310
	95% Confidence Interval of the Difference	Lower	-,84308
		Upper	-,46225
t			-7,010
df			29
Sig. (2-tailed)			,000

The outcomes in the table show that the *t*-value was -7,010 with the significance test p-value sig. (2-tailed) = 0,000; that is p-value < 0, 05. That is to say H_0 was rejected and *Ha* retained. In concrete words, the improvement in EXP group EFL averages scores was statistically significant. These results revealed then a positive impact of the metacognitive instruction on the informants of the EXP sample descriptively and inferentially. The histogram below illustrates these findings.



Histogram5.3. EXP Group Pre- and Post-treatment EFL means

2) <u>CTR group</u>

A/ **Descriptive statistics**

The following is the outcome of the comparison between the first and second semester means (averages) concerning the CTR group:

Table5.46. Descriptive statistics of CTR semestrial means

	N	Min	Max	Mean	Std. Deviation
CTR semestrial averages1	30	7,99	15,55	10,9877	1,55626
CTR semestrial averages2	30	8,04	13,95	11,3323	1,67325
Valid N (listwise)	30				

The results of the descriptive statistics indicated that

CTR averages 2 (11,33)> CTR averages 1 (10,98)

These results revealed that the semestrial means of CTR sample improved. What remained was to check the statistical significance of this finding through the *t*-test.

B/ Inferential statistics

We can define the null and alternative hypotheses:

H_0: there will be no difference between the pretreatment and post treatment EFL scores of the CTR group

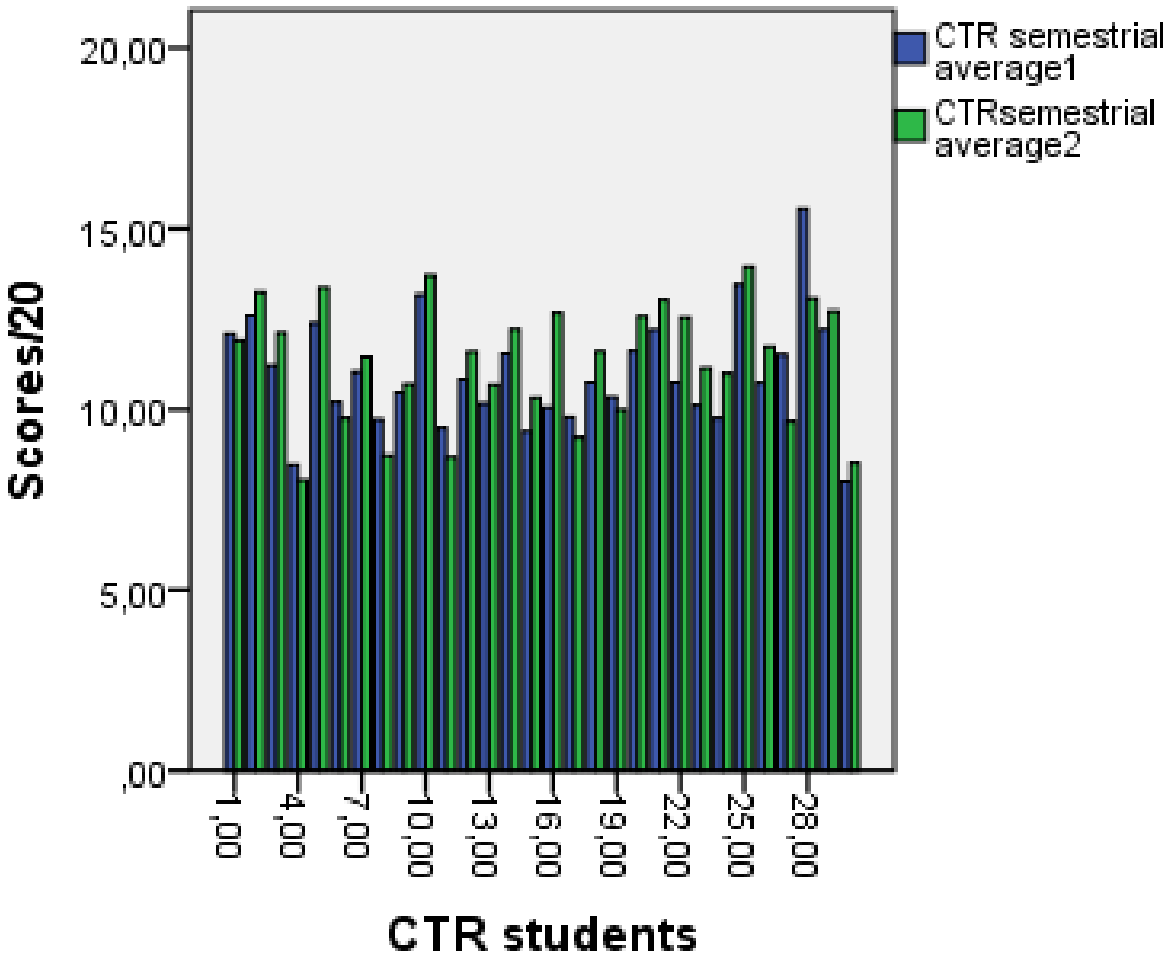
Ha: there will be a difference between the pretreatment and post treatment EFL scores of the CTR group

The following table displays the detailed results of the t-test:

Table 5.47. Paired samples *t*-test results of CTR semestrial averages

			Pair 1
			CTR semestrial average1 - CTRsemestrial average2
Paired Differences	Mean		-,34467
	Std. Deviation		1,02033
	Std. Error Mean		,18629
	95% Confidence Interval of the Difference	Lower	-,72566
		Upper	,03633
t			-1,850
df			29
Sig. (2-tailed)			,074

The results in the table show that the *t*-value was -1,850 with the significance test *p*-value sig. (2-tailed) = 0,074; that is *p*-value > 0, 05. That is to say H_0 is retained and *Ha* is rejected. We conclude that the improvement in CTR group EFL scores was not statistically significant. In other words, these results revealed that the semestrial scores of CTR sample improved descriptively but not statistically. The following histogram displays the results related to this part.



Histogram 5.4. CTR Group Pre- and Post-treatment EFL Means

5.4.3. Scores Analysis: Summary and Discussion

The results of the analyses of EXP and CTR groups writing and EFL scores could be summarized as follows, taking positive (+) or negative (-) improvement as a reference of analysis, first on a descriptive and then on a statistical basis.

	Writing	**EFL**
EXP	descriptive (+) statistical (-)	descriptive(+) statistical (+)
CTR	descriptive (-) statistical(-)	descriptive (+) statistical (-)

This table shows that there was certainly a positive effect on EFL for the EXP group and that there was no improvement at all in writing for the CTR group. However, the results related to writing for the EXP group and those related to EFL for CTR group indicated an improvement that could not be proved statistically. The research hypothesis formulated for this part was maintained on a descriptive basis but not on a statistical basis. In other words, we could confirm the positive effect of the suggested instruction on, and so the improvement of, the EXP group. Consequently, we could prove the progress perceived in the questionnaire and interview findings. Besides, we could certify that the traditional instruction followed by CTR group did not lead to a positive effect and so there was no development for this group. Nonetheless, since the statistical analysis did not result in inferentially proved data for EXP, in writing, we could not generalize the results for all the first year population.

5.5. Triangulation of Results and Discussion

The research procedure undertaken in this work investigated the extent to which formal classroom instruction could enhance students' metacognitive awareness in writing performance, as well as the impact of such instruction on learners' awareness in writing and learning, and on academic success.

The pre-instruction phase concluded in describing learners' profile as having deficiencies in background, procedural and conditional knowledge and so a weak metacognitive base in the three types of metacognitive knowledge (person, task, and strategy). In the while-instruction phase, however, the EXP informants began to develop metacognitive awareness. This could be achieved with the use of self- and peer-editing and evaluation sheets, interviewing and conferencing, in addition to the use of e-learning. The students were trained in reflecting on their own writing and learning progress at the same time of developing writing strategies (task knowledge) through strategically designed lessons.

By the end of the instruction, the results obtained via the triangulation process brought the conclusion that EXP group outperformed CTR group (academic success). They also marked a quantitative and statistical improvement in a number of questions. EXP group essentially developed strategic knowledge of the writing practice since they became able to self-evaluate their writing and those of their friends, and so they could be aware of their strengths and weaknesses (person knowledge). They even showed a preparation for self-monitoring and self-regulation (strategic knowledge). We could infer that EXP informants developed metacognitive awareness that enabled them to attempt different problem solving options in what concerned writing and learning (awareness in writing and awareness in learning).

It may be argued that the analysis of the different research tools corroborated to an acceptable extent the success of the suggested blended learning instruction which contributed in reshaping students' beliefs of what constituted efficient writing and successful learning. Yet, it is noteworthy that the acquisition of

metacognitive awareness skills was not uniform for all students; that it appeared gradually and it needed time to be fruitful, and even allude that more consistent results might appear in later learning stages. It is equally important to consider a number of issues which emerged as self-evident throughout the different steps of the study in terms of linguistic and pedagogic needs.

Additionally, the implementation of the instruction revealed that the students kept making language mistakes related to grammar and vocabulary choice, spelling and mechanics; besides, they displayed difficulties in writing in other modules/ subject-matters. It follows that the first research hypothesis was partially confirmed through the different findings analyses; however, the formerly suggested instructional model needed to be supplemented with another pedagogic component that would cater for students' (mainly) linguistic and composing needs. The complete form and contents of the instructional framework are explained in theoretical and practical terms in the following chapter.

Moreover, concerning the effect of the suggested instructional model on students' learning and writing achievement, the research findings displayed a positive impact since students in the EXP group scored relatively better than the CTR group, and so they improved their English proficiency in general and their scores in the writing module in particular. In addition, though at the beginning of the instruction, the students did not have any idea of how to monitor their work and so how to develop awareness in their learning and writing process, improvement was noticed over time, mainly through tasks such as self and peer editing, collaborative writing, unstructured interviews and conferencing, and later with the introduction of the moodle. As a result, the second research hypothesis was certified by the positive influence of the development of learners' metacognitive awareness in writing on their academic success in both aspects: writing and EFL. The different findings contributed thus in confirming the necessity of incorporating metacognitive awareness instruction in the teaching/learning process.

The learning platform enabled students to learn at their own convenience. This meant to practise, ask for help, or extend knowledge only on needed lessons, and anonymously. It also encouraged them to seek knowledge from

sources other than the teacher, and beyond the classroom setting. This constituted a first step towards self-regulated learning and autonomy. These principles represent the hallmark of CALLA. Moreover, e-learning opened the possibility for interaction between teacher and students and between students themselves; a fact that reinforced the socio-constructivist nature of CAW in that students are scaffolded in the use of ICTs and their integration in the writing instruction. One can deduce that the third research hypothesis was affirmed according to the research findings. Furthermore, it can be concluded that writing and EFL instruction should be supported by a theorized practice that is reinforced by the use of ICTs, which would facilitate an authentic development of social and cognitive processes.

It follows that the next step would be to elaborate a writing instructional model that takes into consideration all students' needs by combining appropriate teaching approaches that would respond to these needs and attain the desired writing and learning outcomes.

5.6. Conclusion

The goal of this study was to suggest a blended learning approach which combines a number of approaches, aiming at helping students build and develop metacognitive awareness in writing. More particularly, the practical part represents an attempt to assess the relationship between metacognitive writing instruction and the development of writing awareness, learning awareness and academic success.

According to the research findings throughout the different phases the informants entered university with low self-evaluation and self-monitoring strategies. They also had a narrow view of what constituted effective EFL writing, focusing essentially on form correctness (deficiency in background and procedural knowledge). However, after undergoing a metacognitive instruction, they progressed considerably in terms of metacognitive knowledge since they proved to have gained writing awareness and learning awareness which led to upgrading their academic achievement in writing and in EFL learning. The results of the qualitative, quantitative, and statistical analyses of the data collected from the different research instruments showed that metacognitive knowledge was closely related to awareness in writing and in learning; and that it led to academic success. Therefore, the instruction is effective and highly praised for developing students' metacognitive awareness and leading them to autonomy.

Nevertheless, according to the results of the study, there emerged a necessity to redesign the suggested framework for teaching writing at university level, on the basis of learners' writing and learning needs, in a digital era. This investigation also highlighted the importance of implementing the use of ICTs at university level for a successful EFL and writing instruction. Students would as such be able to improve in writing, in learning EFL, and in lifelong learning. Learners' difficulties and needs have thus to be taken into consideration in order to ensure better learning results.

CHAPTER SIX

ADVOCATING A BLENDED APPROACH TO TEACHING WRITING AT UNIVERSITY LEVEL

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6.1. Introduction

The analysis of the results obtained at different stages of the research has led us to confirm the success of the implemented instruction in raising students' metacognitive awareness while writing, as well as the positive impact of this instructional model on students' writing and EFL learning proficiency. At the same time, it revealed students' weaknesses and needs, and brought to light lacks in the suggested instruction itself. Therefore, considering learners' learning and writing manifestation during the administration of the instructional framework has guided us to ways of improving the initial writing instruction by incorporating learning/writing concepts in like manner to meet learners' needs and achieve educational goals. Likewise, this chapter will expose an attempt at improving EFL writing instruction at university level by acknowledging students' writing and learning needs. In addition, a blended approach to teaching writing at university level is explained through its major components: CALLA, Writing across the Curriculum (WAC), and Computer-assisted Writing (CAW). Furthermore, writing feedback and evaluation are reviewed, in light of research findings and suggested instruction.

6.2. Pedagogical Implications: Focus on EFL Students' Needs

EFL students must be prepared to respond successfully to university writing assignments; therefore, an appropriate writing course should be thoughtfully designed to take into account immediate student needs in accordance with academic goals, university objectives, and professional expectations. Such a goal could be attained by appealing to approaches that would forge students´ metacognitive awareness on one side and their linguistic and composing mastery on the other side. Thus, before reaching a satisfactory instructional model that would lead to better learning and writing results it is important to first come around learners' writing and EFL learning needs, as have been observed during the triangulation process.

To begin with, the analysis of the different research tools revealed that students showed deficiencies in language mastery, namely in what concerned grammar and vocabulary, spelling and mechanics. This prevented them from improving their writing competence, mainly when their errors interfered with the general meaning of the written products. In addition, the informants seemed to ignore the nature of writing tasks and what was awaited of them in terms of proficiency and production. They also showed lacks in rhetorical strategies and in appropriate consideration of genre, purpose and audience. The informants equally focused on form correctness and failed to perceive the communicative nature of writing skill. On the other hand, they ignored the value and mechanisms of e-learning and writing. Overall, they need more practice in writing strategies, mainly on revising strategies.

Second, in order for students to be taught to be proactive competent writers, there is necessity of raising their metacognitive awareness in the early stages of writing instruction. This would enable them to know themselves as writers and adjust their beliefs and knowledge of the writing task and its requirements by building subject-matter awareness, as well as to acquire strategies for how to deal with problems they encounter in writing, in learning, or during exams. Besides, they require training in self-reflection and self-monitoring they can achieve self-reliance and self-regulated learning and ultimately autonomy in order for them to develop cognitively, academically and even socially. This highly considered objective demands from learners to be active and open to cope with writing and learning challenges individually, collaboratively, or with the training and tutoring of teachers. Consequently, they ought to be trained in ways of developing writing and learning strategies at university level through a formal instruction.

Furthermore, the introduction of e-learning into the suggested instructional model has brought in positive changes in students' attitudes towards technology assisted instruction in general and writing in particular and has even helped them overcome certain learning and writing challenges; nevertheless, the difficulties that faced the application of blended instruction has brought the conviction that in order for CAW to be fruitful, necessary equipment has to be

provided at the level of the EFL department in the form of computer laboratories with Internet connection. In addition, teachers and students should be trained to word processing (Hedge, 2000; Kern, 2000) and Internet surfing. Besides, teachers should be open to change and have to learn appropriate methodology that would make an authentic and meaningful use of ICTs in the EFL classroom, more particularly in the writing class. As a result, students have to be explicitly taught how to be introduced to technology-friendly writing through explicit instruction, within a safe learning atmosphere and relaxed writing environment for students (Urquhart and Mclver, 2005 and Wajnryb, 1992) where they can communicate with their teacher(s) and with each other through pair and group work, and where their individual and cultural variations are valued. In addition, a successful L2 writing instruction requires more than linguistic mastery and cognitive achievement; it definitely requires an informed understanding of the socio-cultural dimension of writing, and consider prior EFL and writing instruction in the different languages (French and Arabic). Ultimately, learners have to be trained to explore writing through culture and culture through writing, and to think about themselves as writers, language users, and culture acquirers.

There is also a need for administrative and pedagogical management to remedy problems which weigh heavily on students, such as the number of subjects, the time-load for teaching the writing skill, the big number of students in each group, as well as the time-table and scheduling of homework. Furthermore, the LMD scheme as an educational system has to be clarified to all students so that they are more involved in the learning process and be able to function in society as effective citizens. This is in fact a major goal in education.

Teachers for their part should have a crucial responsibility in helping students attain the desired writing and learning objectives. They should thus have their roles adjusted in a way to be responsive to learners' individual needs. Besides, they should frame their teaching, feedback, and correction practices in a way to (re)shape learners' beliefs about writing, initiate them to the writing habit, and even train them into autonomy by involving them in the making of the lessons after undertaking necessary research. In addition, teachers have to explain course

objectives to learners so that they take the responsibility for their own learning. This major task requires training in teaching metacognitively, which in turn calls for rethinking teachers' own training and development. In addition, Harmer, (2001: 261) believes that the writing teacher should be a motivator and a resource and a feedback provider at the same time: encouraging them to write, providing them with enough support in information and in language use, and responding positively to their written products. It is equally significant that teachers at the department of English, permanent and part-time, need to organize collaboration workshops in order to exchange ideas and exchange feedback procedures and so improve their teaching practices. This would ensure an in-service training so needed for their career.

Finally, for writing instruction to be effective, it is necessary to reconsider EFL instruction in pre-university levels, and review EFL syllabi in general and the teaching of writing in particular. There should be coordination between syllabus designers in all levels for the sake of achieving harmony in the different objectives and a natural transition from one level to the next. More importantly, pre-university level EFL instruction should aim at preparing pupils for autonomous learning at later study stages; this can be realized through acknowledging the necessity of learning regulation and evaluation at all steps of the learning process. In particular, writing instruction has to be reviewed in a way to be more naturally integrated to all language learning aspects, while at the same time favouring metacognitive awareness and regulation. Furthermore, technology-enhanced EFL instruction should become part learners' learning path in order to cope with technology-driven modern education. In the end, it is important to note that forming independent learners who possess metacognitive strategic knowledge is a good solution in case of large classes; besides, raising metacognitive awareness and achieving autonomy are the hallmarks of the LMD system. For all these reasons, and in order to cater for learners' linguistic and learning needs, it is necessary to (re)consider syllabus design at tertiary level.

6.3. University Writing Pedagogy Revisited: A Blended Approach

In this part, the researcher attempts to answer the first major research question relating to the writing instructional model required for a successful writing and learning instruction. This is in response to the learners' weaknesses and needs reported so far. It follows that since the students were noticed to display weaknesses at the level of language mastery first, before showing weaknesses at managing the writing process with different rhetorical modes, and before displaying deficiencies in strategic knowledge so necessary for coping with university level studies requirements, the research results confirmed the need for a metacognitive awareness-raising instruction in order for learners to face their lacks and ultimately monitor and self-regulate their learning process while writing. As a result, EFL students require a renewed writing instruction that helps them improve linguistically, rhetorically and metacognitively, while combining writing, language learning, strategic thinking, and e-learning. In what follows, the suggested (modified) framework is described in theoretical and practical terms.

6.3.1. Theoretical Construct

In light of the afore evoked EFL learners' needs and in order to meet their particular wants and expectations within the LMD system, writing instruction should be targeted towards developing students linguistically, rhetorically and metacognitively. This signifies adopting insights from CALLA in order to institute strategy-based instruction that promotes metacognition. In addition, it requires integrating the use of ICTs with writing instruction through CAW to solve the problem of large classes and insufficient time-load devoted to writing, by extending writing instruction beyond classroom settings. Furthermore, the instructional framework needs to be enriched by another theory in a way to make language studies an integral part of the writing instruction by advocating the Writing Across the Curriculum (WAC) approach, in which writing is considered as a learning tool to reinforce not only the composing practice but also thinking, and learning. Therefore, WAC seems self-evident since it requires reinforcing language mastery

and the consideration of writing rhetorical modes most needed by students for a better writing competence. The academic framework that results from the study combines different learning and writing approaches; it is comprehensive in that it covers three areas: writing, thinking and learning. The overall design of writing pedagogy _an improvement of the initial instructional framework suggested under section 4.3.2._ will be as follows:

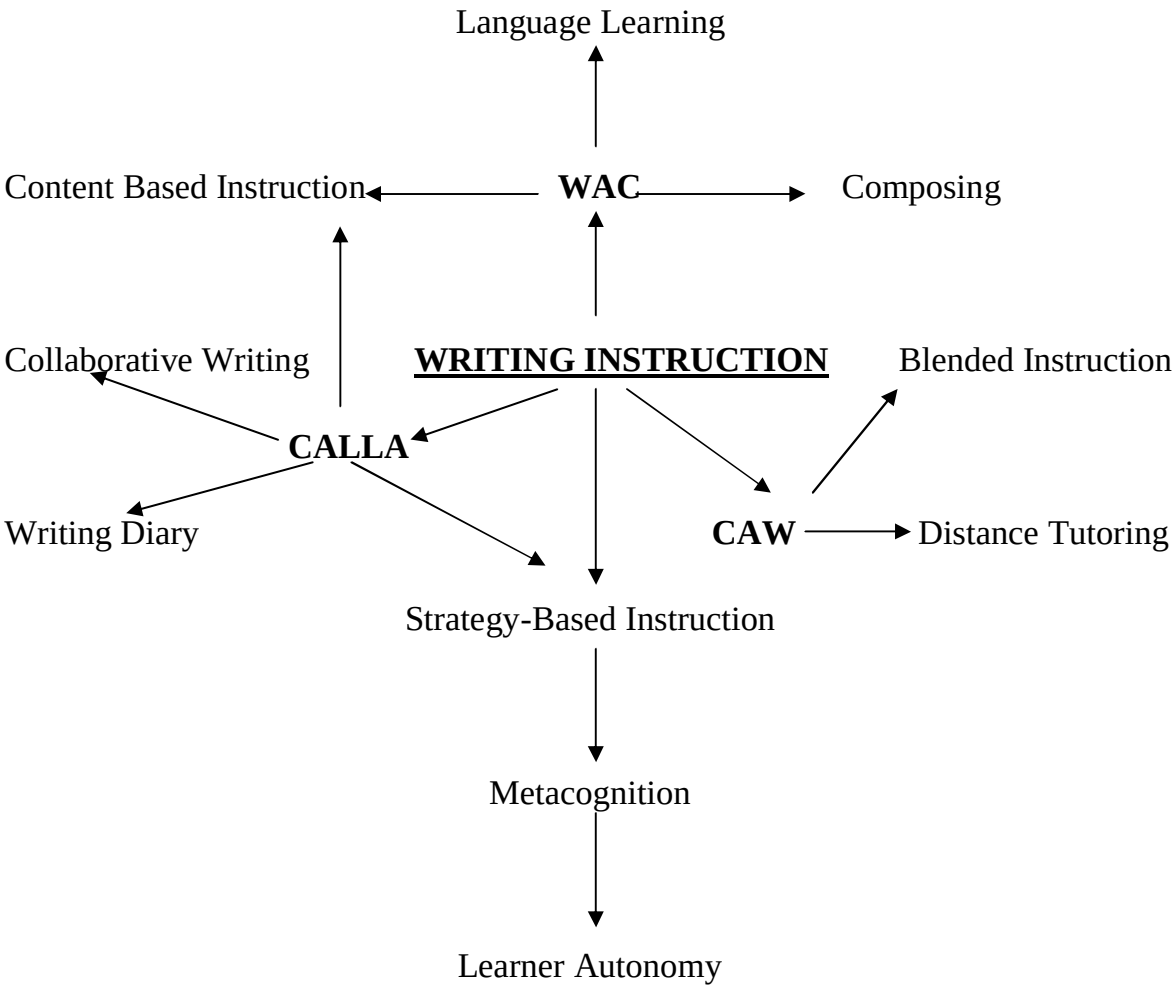

Figure6.1. A Blended Approach Model to University Writing Instruction

The suggested teaching model paves the way to solutions that aim at remedying students' linguistic, rhetorical, and learning deficiencies by reinforcing the teaching of grammar and vocabulary in a way to promote writing accuracy. In addition, Content-Based Instruction can be opted for in order to insure relevance and richness of ideas as well as meaningfulness of topics by integrating writing in the different subject-matters making up tertiary level EFL syllabus. Furthermore, genre pedagogy is believed to solve students' rhetorical troubles for a better writing proficiency during and after university life. Moreover, different practices are favoured for the sake of raising learners' metacognitive awareness in writing; more precisely, conferencing, using and developing evaluation sheets, collaborative writing and holding a writing diary. CAW is also considered as a privileged way for attaining autonomy through distance learning which presupposes a more active role of the learner who aspires to take in charge their own learning. The proposed solutions can be summarized as follows:

Approach	**Problem**	**Solution**
WAC	linguistic	language learning: reinforcing the meaningful teaching of grammar, vocabulary
	ideas/ meaningfulness	CBI (integration of subjects)
	rhetorical	genre pedagogy
CALLA	self-reflection/ regulation	metacognition: strategy-based instruction; in-class with self and peer editing/scoring ; out-of-class with diary keeping
CAW	autonomy	study skills and teachers' tutoring (defining objectives, guiding, monitoring through classroom and distance learning)

To sum up, in order to implement an innovative instructional framework for teaching writing at university level, it is necessary to adopt Strategy-based Instruction and adapt principles from CALLA and combine them with WAC and CAW with an overall objective of an autonomously-built writing competence. The primary concern would be raising metacognitive awareness in writing, but the ultimate goal would be awareness, self-regulation, and autonomy in EFL writing in particular and in EFL learning in general, mainly in a digital age where ICTs play a vital role. In other words, by making explicit what is to be learnt, providing a coherent framework for studying language and contexts, teachers would ensure that course objectives are derived from and geared towards students' needs. The overall implications of the above considerations are that when students opt for different learning strategies relying on self and collaborating with peers, they gradually get rid of (over)reliance on teachers; with the suggested model, students develop autonomy through self-monitoring thanks to metacognitive awareness and self and peer editing/evaluation; in addition, they access more information through CAW. Thus, they learn in class and out of class with and without the teacher. On the basis of these convictions, it becomes imperative to explore mechanisms of instituting metacognitive awareness in writing instruction, through appropriate classroom practices. The following will include descriptions of the different components of the suggested instructional framework as well as theoretical and practical improvement suggestions, on the basis of the present research findings and students' actual needs.

6.3.2. Metacognitive Writing Instruction: Classroom practices

During the practical phase of the present research work, raising students' metacognitive awareness while writing proved to be necessary for better writing and learning achievement. The researcher adopted strategy-based writing instruction steps in which teacher and learner roles were defined (see section 4.3.2.). Thus, in order to devise a strategy-based instruction, it appears relevant to apply some of CALLA teaching principles in a way to promote learners' metacognitive awareness in writing and in learning. This presupposes the teacher playing a prominent role in teaching with and for metacognition. Besides, learners' cognitive and affective

differences have to be considered so that they can lead a successful and anxiety-free writing and learning experience. In addition, learners should be trained to write collaboratively, and reflect on their learning process through writing diaries. Furthermore, writing feedback and evaluation have to be reviewed accordingly, as can be explained in what follows.

6.3.2.1. Strategy-Based Writing Instruction Considerations

An understanding of students' metacognitive knowledge results in effective writing instruction and instructional support, and scaffolding can facilitate the promotion of metacognitive awareness. Many educationalists advocate the explicit teaching of metacognitive strategies during classroom writing instruction and have contributed with practical classroom ideas to integrate metacognition into writing instruction for the purpose of training learners in using and evaluating the use of appropriate learning and writing strategies; in other words, for developing their strategic knowledge and executive management skills (see section 1.6.3.2.). Nevertheless, it is necessary to remind the cyclical nature of the writing process which would work best when cognitive and metacognitive and even affective strategies are combined (O'Malley and Chamot, 1987; Oxford, 1990; and Hamzaoui, 2006): direct strategies involve the foreign language directly whereas indirect strategies provide indirect support for language learning through focusing, planning, evaluating, seeking opportunities, controlling anxiety, increasing cooperation and empathy, and other means. This would ensure learning the language, learning writing, and learning management in a 'safe' environment that encourages self-reflection and self-monitoring together with learner and teacher collaboration. Practically speaking, our informants require training in setting learning and writing objectives (strategic knowledge), developing awareness of the writing task (task knowledge), and adopting the necessary strategies to function alone and with the help of peers and teacher (affective strategies).

The different steps of a strategic lesson explained under section (4.3.2.) are inspired from CALLA principles. As formerly clarified, CALLA is a teaching approach that trains learners in using effective strategies for learning through a classroom instruction that links theory to practice. The main characteristic of CALLA task-based instructional design is the incorporation of content, language, and learning strategies for a major goal to attain learner autonomy (see section 1.5.5.). In addition, the writing instructional framework implemented during the research phase resulted in that assertion that CALLA instructional design, with its five phases (see Appendix A), seems to go hand in hand with the writing process as presented in the following table:

	CALLA model	**Writing Process**
Step 1	Preparation (activating background knowledge)	Prewriting
Step 2	Presentation	Outlining
Step 3	Practice	Drafting
Step 4	Self-evaluation	Revising/Editing
Step 5	Expansion	Writing in other topics/ in different subjects

This table illustrates the different writing steps of the writing process and how they correlate with the different steps of the language teaching model suggested by the advocators of CALLA. This shows the interrelationship between writing and learning and provides an opportunity to link both in the different EFL subject-matters. In fact these steps also illustrate task-based principles of teaching writing since writing constitutes a natural part of the cycle; the end product has to be first introduced orally or through reading in the pre-task phase, then discussed in the task stage, drafted collaboratively at the planning stage and completed in the

report stage. It is worth noting that applying this task-based type of instruction would build links between university level and pre-university levels which adopt task-based learning within Competency-Based Approach (see section 2.4.1.1.). Willis (1996) illustrates the task cycle in the following figure:

Pre-task Discuss topic and situation. Teacher sets the written task, which could be based on a reading text.
Task cycle **Task:** Students discuss task orally in pairs or in groups, to decide content. **Planning1:** Pairs draft notes, discuss outline, write first draft. Exchange drafts with another pair and ask them to suggest improvements. **Planning 2:** Redraft, check, improve, make final checks. Final draft ready for audience. **Report**: Pieces of writing read by all, for a set purpose. Class discussion of findings. Summing up.

Figure6.2. Writing in the Task Cycle, as put forward by (Willis, 1996: 62)

Accordingly, task-based writing instruction not only best illustrates the process approach but also promotes collaborative writing and even self (or peer) evaluation of written products through discussion. All these principles exemplify strategy-based writing instruction and go hand in hand with metacognition objectives. Nevertheless, insights from other researchers can be adopted to improve those steps. For example, Lv and Chen (2010: 139) propose in the *Preparation stage* to activate student' background knowledge in order to address particular gaps in their knowledge and strategies, in addition to setting 'feasible goals'. Also, Constructivist theory argues that meaningful learning happens when students link prior knowledge and schema with what they are learning, and then create their own knowledge Jackson (2009). In the *Presentation stag*e, which mostly concerns teacher's modeling of the strategy, the teacher explains when, where and how to use the studied strategy/strategies and provides learners with the necessary

metacognitive strategies. In the *Practice stage,* students are reminded of the cognitive and metacognitive strategies discussed in the preparation phase, and they are guided to combine these strategies in authentic practice tasks. In the *Evaluation stage,* students are trained to check their knowledge of the skill(s) and of the used strategies through self-, peer- and teacher-evaluation. Finally, in the *Expansion stage*, students are encouraged to devise their own combination of metacognitive strategies on the basis of their evaluation of what works for them best.

Moreover, writing strategies have to be explored and reinforced through appropriate and regular practice in a way to promote students' declarative and procedural knowledge. For instance, EFL students were observed in this study to face difficulties in arranging ideas in a plan; they need then to devote enough time for the prewriting phase so that for students to find more ideas and be able to figure out ways and selecting relevant ones and arrange them in an outline and even write longer and more detailed compositions. Ourghi (2002) maintains that careful planning assists students in writing more comfortably and in acquiring more familiarity with the topic. Turkenik (1998) for his part suggests different prewriting strategies: listing, free-writing, asking WH questions, clustering, and getting ideas through reading or through discussion. In addition, students may draw tables to classify their ideas, mainly in case of comparison/contrast or cause/effect composition. Moreover, different prewriting techniques can be combined for more content details and vocabulary richness.

The informants also showed weak revising strategies which could be remedied by applying regular self- and peer-editing techniques. It is worth noting that better prewriting and writing strategies would certainly reduce number and type of writing errors or weaknesses. Besides, students produce better compositions when they choose their own writing topics, this is why the researcher asked the students to suggest themes that interested them most, individually or collaboratively. Within this metacognitive instruction endeavour, the teacher sustains a key role in assisting learners in the choice, application and evaluation of writing and learning strategies.

6.3.2.2. Teacher and Learner Tasks

Writing teachers can not only introduce and explain the metacognitive strategies in parallel with the cognitive ones, but also model the use and evaluation of these strategies, and even monitor the whole process via practical techniques. Yet, they should first begin by building subject-matter awareness from the beginning of the year, and guide students to set learning and writing objectives. Besides, teachers should help learners identify their own learning styles and 'successful' strategies.

In order to gather relevant data about the writing and learning process, they can make use of conferencing and informal interviews, either with individual students or with the whole class in a way to give shy students an opportunity for contributing with their answers with more confidence. Other information-gathering techniques may include observations, think aloud procedures (by making students speak about the strategies they actually make use of while EFL learning and writing), note-taking, and teaching diaries or journals where teachers may explore their teaching beliefs and practices Gebhard and Oprandy (1999: 79), without forgetting that the basis of successful teaching is careful learners' needs analysis and appropriate selection of strategies. Ultimately, learners evaluate their own strategies, internalize the successful ones and become independent users of these strategies. Hence, teachers, as guides and monitors, should scaffold learners to gain more responsibility by cultivating their strategic knowledge so that they become competent writers and self-regulated and autonomous learners. To note that Cotteral and Cohen (2003) suggest scaffolding in the form student-teacher talk during a writing instruction that combines relevant themes, focus on language, writing process modeling, and regular feedback from peers and tutors. Therefore, learning to write can be teacher-scaffolded, but it is better when it is self-monitored and peer-promoted.

Collaborative Writing

Collaborative witting can be encouraged by the use of peer-editing and peer-scoring sheets, but also via pair- and group-work assignments. The researcher encouraged students to write alone, in pairs and even in groups at the same time of using self- and peer- evaluation sheets. In this way, the learners manifested higher motivation while writing; they did not fear the task of writing, and they produced more ideas and fewer mistakes. During group activities specifically, the informants seemed to enjoy the task, they shared responsibility, and mainly shy students were able to express their ideas, negotiate how to express their ideas in English, and received feedback from their peers. Lundstrom and Baker's study (2009) has equally come to the conclusion that peer review is more beneficial for student writers than their review for their own writing. On the other hand, Grenville (2001) strongly claims that Writing Workshop and Small-Group Writing Instruction while teaching writing to EFL learners has the advantage of developing the language since students not only share ideas and writing but also expand word banks, mainly when the necessary scaffolding is provided by the teacher. They also empower affective strategies through encouraging oneself, discussing feelings with someone else, and social strategies through asking questions, asking for clarification, asking for correction, cooperating with others, developing cultural understanding and gaining awareness of others' thoughts and feelings, Oxford (1990). Besides, Harmer (2001: 260) maintains that collaborative writing is more motivating for students and is beneficial both in process and genre-based approaches. In the process approach because it facilitates generating ideas as well as reviewing and evaluation as many learners are involved. It also facilitates better consideration of genre-specific texts. It is important to add that collaboration in writing is valued between learners themselves and that training in collaborative writing and learning promotes socio-affective strategies so necessary for LMD students in order to learn socialization in academic and professional settings. Gradually, students are led to autonomy, mainly when they are trained at setting writing and learning objectives (Cotteral and Cohen, 2003), which could be monitored by holding a writing diary.

The Writing Diary

EFL students can be trained to reflect on their writing and learning experiences through diary or journal writing, as an *affective* strategy which can be used for 'taking emotional temperature' in order to check motivation and attitudes (Oxford, 1990:144). In these learning diaries, students keep note of their written products and their progress. They may also gather their written products in portfolios (Hirvela and Sweetland, 2005; Song and August, 2002) in which they practise writing to self, to peers, or to the teacher; that is to say, this practice can be individual, guided by the teacher or shared with others. These portfolios would also include students' reflections on the lessons and so an occasion for learners to discover their strengths and weaknesses and communicate them to their teachers. Learners can be advised to write regularly and to note down where they confronted difficulties or problems in writing, and how they managed to solve these problems, increasing as such metacognitive understanding of their own thinking processes (Chamot *et al*., 1999). Therefore, learning journals are found to serve a three-fold purpose: learners monitor their own progress, teachers analyse learners' needs, and both teachers and learners keep in continuous contact. Moreover, Creme and Lea (2003: 165,170) not only believe learning journals make the learning process visible, but also consider they are a type of writing and draw similarities between the two as follows:

Writing	**Learning journals**
Topic	You plus the course
Form	Reflective narrative, often diary-like
Purpose	To reflect on your progress through your course
Audience	A 'sympathetic reader'
You as the writer	Reflective and personal, with 'I' at the centre
Situation	Different courses with different aims and expectations

Figure6.3. A comparison between writing and learning journals

Besides, students learn to set learning and writing objectives, monitor their progress and evaluate their own writing and learning development during the academic year, and so are equally trained into autonomy. However, it is important to work with flexible mini-goals that can be easily checked and managed (Cottrell, 2008), and adopt a positive self-evaluation in order to enhance self-confidence. In addition, teachers should respond regularly to these diaries and negotiate with learners what to be assessed and how to remedy weaknesses and failures. Elbow (1994) suggests different ways of responding to journals: periodic inspection but no reading, fast browsing, full reading, responding, and grading. Thus, teachers have to help students be more responsible and assume their roles effectively, showing them where they progressed and where they didn't. It follows that writing teachers have to reconsider the way they respond to and evaluate their learners' written products.

6.3.2.3. Reconsidering Writing Feedback and Assessment

Writing feedback practices have been transformed, with the teacher written comments combined with peer feedback, self-monitoring, teacher-student conference or computer-mediated feedback, (Hyland, 2003). It is also important for the teacher to vary the correction and feedback practices in a way to change focus every time (fluency, accuracy, coherence, unity…), as well as combine direct and indirect feedback. Direct or explicit feedback occurs when the teacher identifies an error and provides the correct form, while indirect feedback refers to situations when the teacher indicates that an error has been made (using a code for example) but does not provide a correction, and leads the learners to find the type of error and correct it themselves. In addition, the teacher adds comments on the margin on the positive and the negative side of the written product. Another possible feedback procedure is face-to-face conferencing (Hyland, 2003) since students have meaning clarified and ambiguities resolved by the teacher. Other illustrations of feedback procedures, as has been clarified earlier, include peer group responses of various types, teacher demonstrations of revisions with specific student writings, in addition to analytic-guide questions and lists, or using specific rubrics (as those in Appendix J, K, L). Moreover, (Hyland and Hyland, 2006) assert that students can be granted

individual concern and receive feedback online and offline, and Hamp-Lyons (2001:121) suggest using technology for writing assessment since the tests can be repeated many times, and are flexible in time application. These different feedback modes are not mutually exclusive but rather complementary. The proper employing of varied feedback modes will contribute to the productive use of feedback in the writing class and facilitate students' writing improvement in a foreign language. Most importantly, the teacher is advised to avoid over-correction of errors and keep criticism to the minimum in order to encourage students to write confidently in a supportive learning environment.

Nonetheless, writing is often assessed at end-product level; that is summative assessment. The writing process, however, involves different steps that are not assessed or evaluated. In this context, Hinkel (2004: 6) believes there is a disparity between the teaching and testing of academic writing: while teaching focuses on process, brainstorming, drafting and revising; testing is centred on the writing product. The result is that the essential linguistic skills, such as academic vocabulary and formal features of grammar and text, are only sparsely and inconsistently addressed. Hamp-Lyons and Heasly (1987) explain that the problem with summative judgments is that they are not reliable: they are influenced by such factors as handwriting, a knowledge of whether the learner works hard or is lazy, by the teacher's mood or tiredness, as well as by whether the learner was interested in the topic or was tired or worried that day, and so on. To be fair, summative judgments should be based on a number of pieces of writing and not just one or two. These pieces should be on a range of topics, of different lengths, and under different conditions (homework/ in class), and preferably over a period of time. Therefore, it seems relevant to devise evaluation practices that take into consideration the process nature of writing, and to evaluate students' products at different steps of the writing process (Tribble, 1996), and consider accuracy and fluency too. Kasper (1997) insists on the importance of designing institutional writing assessments which evaluate students' competence in written communication rather than in linguistic accuracy. Equally significant is to make students self-assess their own writings and those of their peers, by using a scoring rubric (Appendix L),

for the sake of remedying students' overreliance on teacher for correction/evaluation.

One can also remind that in addition to raising students' metacognitive awareness in writing and in learning, it is equally significant to assign frequent writing activities, to introduce this instruction early as part of the EFL writing instruction, and to treat writing as a means and as an end of EFL instruction in order to attain a more successful academic progress. One way to achieve this goal is to integrate the subject-matters in the EFL syllabus under Writing Across the Curriculum approach.

6.3.3. Writing Across The Curriculum

The students were observed during the study to find difficulties in writing accurately and not to really perceive the link between writing as a subject-matter and other subject-matters in the EFL curriculum, despite the strategy-based writing instruction. This led us to conclude that the instructional model adopted in the beginning of the study needed to be enriched in a way to care for students' learning weaknesses and achieve meaningfulness, authenticity and language mastery in the writing curriculum. This is why the new (modified) instructional framework completes the CALLA model by incorporating, in addition to cognitive and metacognitive strategies, English language development which aims at teaching background and procedural knowledge in order for students to use language as a tool for learning. Accordingly, students are aimed to use language in academic contexts so that their language skills become automatic; the content in our case consists of the subject-matters making up the EFL syllabus. Such an aim can be attained by adopting writing across the curriculum approach.

WAC is a pedagogical movement that began in the 1980s. It advocates the idea that writing instruction should go beyond the composing classroom to integrate all the academic subject-matters in students' undergraduate education. WAC is based on the premise that writing can be valued as a method of learning. It also acknowledges the differences in writing conventions across the disciplines (in our case, different subject-matters in the EFL curriculum) and believes that students

can best learn to write in these areas by practising those discipline-specific writing conventions.

Inspired by the Writing to Learn approach, writing is considered as a highly cognitive process which involves thinking, language learning and collaborating. And since writing is naturally communicating, students have to be introduced to the links between writing, speaking and reading, and to be guided to the meaningful use of grammar and vocabulary as well, in order to overcome their linguistic weaknesses and reinforce the composing practice (Smoke, 2001). In fact, authenticity and meaningfulness of the writing tasks is an essential condition for learners to attain success as EFL writers (Braine, 1988 and Johns, 1997). By linking writing to other content subject-matters, writing tasks would become more appealing for EFL students. To this end, learner needs analysis has to be conducted on a regular basis in order to understand and consider learners lacks, wants and priorities in writing, in other subject-matters in the syllabus, and in EFL learning in general. Pedagogically speaking, a Content-Based Instruction seems appropriate to achieve the goals of authenticity and meaningfulness, since it avoids isolating language from content (Grabe and Stroller, 1997).

6.3.3.1. Content-Based Writing Instruction

A renewed concern has appeared concerning the writing skill because of its importance in teaching and learning. In addition, the interdisciplinary aspect of writing has called for the adoption of content-based instruction (CBI). According to (Brinton, *et al*., 2003; Met, 1999; and Sticht, 1997), CBI eliminates the artificial separation between language instruction and subject-matter classes, increases motivation in the language course and thus promotes more effective learning, and helps learners develop writing competence in the kind of texts and discourse they need during their formation and even beyond, as researchers and international communicators.

In fact, such an instruction is seen to have several benefits for both teachers and learners. To begin with, teachers spend fewer efforts on explaining the writing lesson because students already know the content; they would rather focus

on explaining the technical side on how the content should be organized according to particular rhetorical mode guidelines. Yet, teachers should have knowledge that goes beyond narrowly defined specialization to be able to deal with different types of topics relating to different subject-matters. Consequently, teacher training and development have to be changed accordingly. As for learners**,** they would have better assistance to remedy their language and writing weaknesses, and learn to use these skills later to achieve academic and professional success. With CBI, learners are expected to

- feel safe and familiar with topics they have already studied,
- devote time and energy to work on form only (rather than struggle to think about suitable content too) and so overcome their language writing anxiety,
- reinforce their understanding of the material they study in culture-oriented subject-matters by the same token,
- be trained to write in these subject-matters more accurately (in homework, research papers, or exams),
- improve their ability to analyse materials in content-based subject-areas, as they become aware of the significance of their technical side, and
- grasp the fact that language is a whole, with its technical and cultural components, and not separate 'islands' of courses
- ultimately, they develop background and procedural knowledge

Therefore, some implications arise:

- to advocate an integration of the subject-matters
- to raise students' awareness about the link between linguistic competence and cultural competence subject-areas
- teachers in charge of different subject-matters should meet regularly to adjust their teaching and testing programmes accordingly
- the integration of the subject-matters at university level presupposes teaching skills which involve using the corresponding programme of culture-oriented (content) subject-matters, such as those of civilization and literature. It also means teaching these subject-matters using different language skills.

- the writing teacher goes beyond general (and monotonous) topics (related to life in general): such as sports, health, family…, and draws content from literature and civilisation syllabi. This essentially means to strike a balance between the different kinds of topics in a way to make learners understand more easily the structure of different rhetorical modes by dealing with topics they have already come across, as the next table may illustrate (Arar, 2013: 271).

Traditional writing topics	**Suggested writing topics**
1- Write *a comparison/contrast essay* in which you compare studying in high school and studying at university level. 2- Write *a logical division* essay explaining the reasons of the increase of violence rate in society. 3- Write *an argumentative essay* on the liberty of the press.	1- Write *a comparison/contrast essay* in which you compare the political system in Great Britain with that of USA. 2- Write *a logical division* essay explaining the reasons of the economic decline that Britain witnessed by the end of the 1970s. 3- Write *an argumentative essay* on the concept of heroism in Hamlet.

Content-Based Instruction builds bridges of authenticity and meaningfulness between subject-matters; therefore, the EFL curriculum has to be designed accordingly. Equally important is to perceive writing as a learning tool which promotes language and content at the same time.

6.3.3.2. Writing as Language Learning

The analysis of students' needs emanating from the application of the instructional framework provided evidence of the necessity to develop students' language competence in parallel with writing competence. It follows that this part will examine the interrelationship between writing and other language aspects (speaking, reading, grammar and vocabulary) in order to find ways of associating language study and writing instruction. Abbot *et al* (1981) posit that the four skills are naturally interwoven and mutually reinforcing in our mother tongue and so they should be in a foreign language course; more particularly, writing should be fully integrated with all the skills and not treated in isolation or neglected. They argue that in real-life communication, there is alternation between receptive and productive activity, and between the use of spoken and written channels. They even encourage oral preparation to precede writing to have a clear idea of the format and content, and a ready flow of 'inner speech', which can be transcribed and edited in a written text. Besides, Raimes (1985) and Harmer (2001) maintain the communicative nature of writing; thus, writing has to convey information according to a certain purpose for a given audience; if not it is simply graphic representation of speech. Consequently, learners have to be made aware of basic principles of discourse if they are to communicate effectively.

In fact, discourse can be spoken or written. Nunan (1993: 6-8) adds that the terms 'text' and 'discourse' are used interchangeably, and that discourse brings together *language,* the *language users*, and the *context* within which the language is used. In addition, dealing with discourse provides a clearer description of discourse units in terms of *cohesion, coherence, text structure, rhetorical organisation according to text typ*e and to *differences between written and spoken discourse*. Therefore, it is imperative to build learners' discourse knowledge by including the teaching of rhetorical and discourse properties of academic writing at university level (Hinkel, 2004). Moreover, language accuracy is prerequisite for students' success in academic writing. It seems then appropriate to first consider the relationship between writing and other forms of discourse: speaking and reading.

Writing and Speaking

Speaking is part of EFL curriculum as a separate subject-matter or as teaching and learning medium in all the other subject-matters. The interrelationship between speaking and writing can be exploited in the writing classroom either to discuss students' writing and learning strategies, or to discuss a given topic as part of pre-writing activity; besides, the teacher can explicitly model oral answers to questions about content before students' practice (Cook Hirai *et al*, 2010:108) . This will avoid the monotony of prewriting in the same 'written' mode. In addition, speaking as a subject-matter can be expanded to cover writing tasks, as follow-up activities. Moreover, Thornbury (2005: 68) considers chatting on the net is an effective way of 'speaking' slowly by exchanging lines of text. This is so because learners spend some time to type and thus think about the language and structures to use. Still, though they are both types of discourse, speech and writing differ in basic characteristics; a fact that entails implications for their teaching.

Discourse analysis shows the divergence between patterns used when speaking or writing in a language in terms of medium and form (phonological/ graphological), language structure, lexical density, degree of formality, audience feedback, purposes, as well as in terms of the processes that writers and speakers go through to produce language. In short, as Ur (1991: 159-161) posits, speaking is spontaneous, obeys no strict rules to be meaningful, may be combined with body gestures or facial expressions to convey the message, and permits immediate feedback. Writing, however, is acquired through formal instruction, and takes time to convey a message effectively and explicitly; if there is any feedback, it is delayed. Speaking and writing, which are under the category of 'productive skills' are in fact independent methods of communication. Since, speaking and writing make use of different grammatical, lexical and paralinguistic choices, and since learners tend to write the way they speak (Cook Hirai *et al*, 2010), the teacher should raise students' awareness of distinctions before engaging in writing assignments. Thornbury (2005: 21) sums up features of spoken grammar that distinguish it from written grammar as follows:

Written grammar	Spoken grammar
the sentence is the basic unit of construction	the clause is the basic unit of construction
clauses are often embedded (subordination)	clauses are usually added (co-ordination)
subject + verb + object construction	head + body + tail construction
reported speech favoured	direct speech favoured
precision favoured	vagueness tolerated
little ellipsis	a lot of ellipsis
no question tags	many question tags
no performance effects	performance effects, including: hesitation, repeats , false starts, incompletion, syntactic blends

Writing and Reading

Reading and writing, as literacy skills, have always been part of first and foreign language learning syllabuses. Though reading and writing are classified under different categories, receptive/decoding and productive/encoding respectively, they are in fact so complementary skills that one serves the other. There is an agreement among educationalists that the two skills have a role in promoting language learning since both provide time to process meaning, and both involve all aspects of language structure and use: phonology, graphology, vocabulary, grammar, discourse, and variety (Crystal, 1995). There are also several points of similarity or convergence between reading and writing processes that Crystal (1995: 152) and Kern (2000: 16-17) expose: interpretation and expression of thoughts, collaboration between writers and readers as senders and receivers of a message, following cultural conventions that are modified for individual purposes, involving cultural knowledge and problem solving skills, requiring reflection and self-reflection, and of course using language.

In addition, there is a correlation between reading achievement and writing ability, in other words, efficient reading is a prerequisite for success in writing. This is what most if not informants in our study agreed on. In this context, Johnson (2008: 7-9) explains that reading helps students become better writers since they develop a sense for the structure of the language and grammar and increase their vocabulary. Also, writing helps in developing phonic knowledge and enhances reading fluency. Furthermore, writing exposes learners to more words and sentences and enhances their ability to quickly perceive and process them when they are in a receptive mode. Thus, reading enables learners to have these interactions and shape their own thoughts; likewise, writing enables them to gather and organize their thoughts in order to clearly communicate them. Therefore, reading should be enhanced by the teacher by integrating both in the EFL syllabus in such a way as they complete each other, because apparently they have much in common at linguistic, cognitive, and socio-cultural level. Kern (2000) also maintains that reading and writing are interdependent and that one way to teach writing is to teach reading with a 'writerly eye'; that is to examine how form and meaning interact in given texts and to discuss these observations in class. Additionally, students may be taught to develop their metacognitive awareness during reading (Flavell, 1976; O'Malley and Chamot, 1990), by monitoring their comprehension process through self-reflection, guessing meaning from context, and through critical reading strategies that would promote their critical thinking skills (Ourghi, 2002). To note that reading represents an authentic language use experience in terms of understanding, analysis and internalisation of language use rules. This can be via considering sentence structure, word structure, noticing signal words such as 'but', 'however', and 'so' to understand connection between ideas, and ultimately by using a dictionary, Thornbury (2002). In a word, formal instruction on metacognition in EFL writing and the teaching of reading can be complementary.

The Place of Grammar and Vocabulary

EFL learners in our study confirmed their need for the knowledge and strategies required for composing, in addition to both linguistic knowledge and knowledge about rhetorical conventions of the target language. As a result, there is a call for an EFL instruction that stresses problem solving, writing strategies, and the meaningful teaching of grammar and vocabulary. Thus, the linguistic aspect is associated to the cognitive aspect within the context of social interaction. Through the composing practice, learners consolidate knowledge acquired about grammar, vocabulary and syntax with writing organizational devices and techniques, and in order to solve the problem of linguistic weaknesses encountered by students while writing, many scholars advocate a more authentic teaching of grammar and vocabulary. For example, Willis and Willis (1996) suggest consciousness-raising activities in which learners are provided with guidelines and activities to help them reflect on samples of language in order to draw their own conclusions about how language works. Similarly, Hinkel (2004) suggests a productive teaching of grammar and vocabulary by focusing on constructions typically found in texts, or highlighting the effects of grammatical features on context, discourse, and text; and conjointly explore lexical structures and the role of vocabulary in context and the interface between grammar and lexis. In addition, many authors recommend wide exposure of students to different types of texts in order for learners to acquire a large background of grammatical and vocabulary structures to use them in their written products. In fact, while studying models of paragraphs during the instruction, the researcher actually guided informants to consider the interrelationship between the studied type of text and grammatical and vocabulary requirements of given types (For example, the *narrative* is characterized by past tense verbs, the use of vivid vocabulary words and expressions relating to the five senses, and the use of dialogues). The goal of practice with grammar constructions is to help learners develop productive fluency in academic writing. Consequently, practice activities can include objective summaries, paraphrases, or analysis of meaning and use of specific grammatical structures in a reading passage.

Besides, according to Ellis (1990), if learners notice correct uses of structures, they can then compare them to those they produce and self-correct. Similarly, Cook Hirai *et al.* (2010) posit that teaching students how to edit work is another useful tool in the acquisition of grammar. When teaching students how to peer edit work, they need to be explicitly taught what types of structures they are looking for and how to offer suggestions for correction to improve both meaning and syntax. It follows that the linguistic aspect through grammar and vocabulary accuracy consideration should be an integral part of the editing sheets given to students for self- and peer-editing. In this way, students will have practice in different learning strategies: cognitive, with grammar and vocabulary study; metacognitive, with self-reflection and self-evaluation; and social, with collaboration.

At the same time grammar and vocabulary teaching should be linked to writing to achieve communicative aspect of the activities. In this context, Hughes (2005) provides insights about the interplay of language, texts and audience, by presenting grammar as a channel for communicating ideas, and stresses students' awareness-raising about *why* a writer chooses specific grammatical structures rather than *what* the writer uses. She suggests an activity (p.45) in which she urges students to make grammatical choices while considering the context of the sentences, as in the following activity about using articles to show shared knowledge:

Choose the article which is appropriate to the context.

a) I sent him a/the letter. (The writer has been planning to send a letter.)
b) She gave me a/the photograph of herself for my birthday! (The writer is surprised and telling another friend it's a strange present.)
c) We really need a/the car. (These people have never had a car before.)
d) They're thinking about selling a/the car. (These people have one car only.)
e) (zero article)/The flowers are lovely, thank you! (The writer is pleased with the gift.)
f) I think (zero article)/the flowers are a nice idea to say thank you. (The writer is expressing their general opinion.)

She then adds a follow-up task (p.46)

Look at the following situations. Write short email replies

a) A close friend has sent you a photo from a party you were both at last week. Thank her and make a comment.
b) A colleague you work with every day has sent you details of some useful websites to do with your job. Thank her and send her some information she needs.

Hughes alludes to two main principles: first, grammar should be always taught with reference to specific communicative contexts; and second, grammar should be related to a writing practice to give the communicative aspect more meaningfulness and activity.

In what concerns vocabulary accuracy, it seems that students keep making mistakes, mainly during exams where they focus mostly on the correctness of answers rather than on the accuracy of the language. Thornbury (1999) recommends to classify students' errors as lexical, grammar, or discourse-related and to discuss them by using pair- and group-correction. Other ways of correcting errors include paraphrasing, reformulating, explanations, and summaries, (Hinkel, 2004); while the activities that may enrich vocabulary knowledge would include index cards, cloze activities, word association games, graphic organizers and diagrams (Cook Hirai *et al*, 2010:45). What might be agreed on so far is that students necessitate carefully selected thematic writing tasks that require learners to employ specific vocabulary items and grammar structures in a way to develop their linguistic competence, which is in turn a requirement for writing competence.

A word on Mechanics

Basically, mechanics concerns punctuation and spelling, which EFL students often find challenging despite teachers' efforts. Spelling difficulties are mainly due to the lack of direct correspondences between the way a word is spelt and the way it is pronounced (consider for example words such as *enough*, *knight*, *possession*….). One way to improve spelling is through reading extensively (Harmer, 2001). The best way to learn spelling is by far through word processing, because spell-checkers enable students to notice their mistakes on the spot and even to learn how to correct them, but spelling can also be taught in class in a meaningful way. Shemesh and Waller (2000) explain that spelling can be taught in class through meaningful and varied tasks, with explicit lessons, and with frequent tests or quizzes. They offer an example (p. 34) about discriminating '-ck' from '-k' at the end of a word:

> First, the teacher writes on the board examples of words containing both endings, and then asks students to elicit conclusions of use.
>
> | -ck | -k | -k |
> |---|---|---|
> | Black | bank | book |
> | Neck | mask | week |
> | Stick | dark | speak |
>
> Students deduce the rule from the observed examples:

We write '-ck' at the end of a single-syllable word which has a short vowel sound:

-ack -eck -ick -ock -uck

We write '-k' at the end of a single-syllable word, when it is preceded by 'n', 's', 'r', or 'l' by two vowel letters

As a follow up activity, the students are provided practice with the studied rule:

Find the words corresponding to these definitions; You may use a dictionary and discuss with mates.

The noise of a frog	…….
A group of sheep	…….
A place for ships to land	…….
A chef	…….
‘Mouth’ of a bird	…….
You will build houses with them.	…….
To hit somebody.	…….
Homer spoke this	…….
to close with a key	…….

As for punctuation, most teachers would agree that theoretical lessons about strict rules of use are often fruitless. Students keep making mistakes and fail at mechanics accuracy mainly during exams where they explain that they are often more worried by correctness of ideas (content) than by mechanics accuracy (form). Therefore, contextual analysis of rules governing the use of punctuation as well as frequent activities involving the use and self- or peer-review appear to be the best manner to inculcate the meaningful and more natural application of punctuation guidelines. Furthermore, the teacher can discuss rules of mechanics during reading sessions, while analyzing different types of texts. On the whole, language study is most necessary for developing EFL writing competence, as well as to develop both students’ task knowledge and strategic knowledge.

6.3.3.3. Writing as Composing

In order to devise an effective teaching methodology, the teacher has to make an account of the required university writing tasks, rhetorical modes and genres to practise them in the form of templates. Besides, students should be trained to refine their academic writing by considering the concepts content, purpose and audience. In addition, EFL learners can be guided into discussing and remedying their writing difficulties. The best way to promote writing, though, is certainly regular writing practice, as most informants confirmed in the investigative analysis.

Writing Tasks

There are some key concepts the teacher should pay attention to while preparing the writing lesson (Brookes and Grundy, 1990; Hamp-Lyons and Heasley, 1987; Hinkel, 2004); most importantly the learners have to be introduced to differences between academic and non-academic writing and so avoid the 'freewriting style' they usually write in, as this table may illustrate (Hamp-Lyons and Heasley, 2006: 17):

	Academic	**Non-academic**
Reader	academics	family and friends
Content	serious thought	conversational
Style	complex sentences showing considerable variety in construction	mostly simple and compounds sentences joined by conjunctions such as 'and' or 'but'
Organization	clear and well planned	less likely to be as clear and as organised
Gammar	likely to be error free	may not always use complete sentences
Vocabulary	technical and academic language used accurately	use of short forms, idioms and slang

Hinkel (2004:19) further exposes characteristics of academic writing as organizing writing to convey major and supporting ideas and using relevant examples to support them; demonstrating command of standard written English 'including grammar, phrasing, effective sentence structure, spelling, and punctuation; showing facility with a range of vocabulary appropriate for the topic; and having awareness of audience needs. In like a manner, EFL students become aware that while writing, they have to take into consideration form and content at the same time.

Moreover, it is important for learners to acknowledge that writing is used for a wide range of purposes since “Helping pupils understand the purposes and processes of writing should, therefore, be part of every teacher's aim” (Harris, 1993:15). According to Harmer (2004) and Ur (1991), writing serves as reinforcement to understand how language functions, or as a convenient method of testing it. Likewise, Grabe (2001: 50) proposes a hierarchy of writing outcomes that follow a general purpose hierarchy, in which one level of purpose is prerequisite for the following one:

1- Writing to control the mechanical production aspect (motor coordination, minimal fluency)

2- Writing to list, fill-in, repeat, paraphrase not composing (only stating knowledge).

3- Writing to understand, remember, and summarize simply, and extended notes to oneself (composing and recounting)

4- Writing to learn, problem solve, summarize complexly, synthesize (composing and transforming, composing from multiple sources)

5a- Writing to critique, persuade, interpret (privileging perspectives and using evidence selectively but appropriately)

5b- Writing to create, an aesthetic experience, to entertain (composing in new ways, figurative levels of composing, violating composing norms in effective ways)

Nevertheless, learning to write fluently in English is difficult even for native speakers. Hedge (1988) claims that it is partly related to the nature of writing itself. Writing is an extremely complex activity in which the writer has to master different variables simultaneously. Nunan (1991), Brown and Hood (1989), Crystal (1995), and Hedge (1988) agree that successful writing involves:

- Mastering and obeying conventions of layout, spelling and punctuation
- Using the grammatical system to convey one's intended meaning
- Having a range of vocabulary

- Organising content at the level of paragraph and the complete text to reflect on a topic.
- Selecting an appropriate style for one's audience
- Developing and organizing the content clearly and convincingly
- Achieving coherence and cohesion
- Going through the process of planning, organizing, composing, and revising.
- Building up a checklist of the forms and functions of written texts and to show students how the features differ from one another.

Besides, most researchers believe that explicit instruction in advanced academic writing and text is needed. Tynjala (2001) describes forms of writing in higher education within this framework including examination preparation, essay writing, thesis and research writing, summary writing, journal writing, collaborative writing, project-based learning tasks, and integrated tasks combining reading, writing, and group discussions. Accordingly, EFL learners ought to be formed in different writing tasks and for different purposes. Learners should also be trained in using dictionaries effectively to find words they would use in their products. Nonetheless, Hyland (2003: 87) insists that the texts selected should be relevant to the students, representing the genres they will have to write in their target contexts, as well as authentic, inspired from their prior knowledge and created to be used in real-world contexts rather than in classrooms.

Considering Genre

EFL students are often exposed to different writing modes as classwork, homework, or as test/exam assignment: narrative, descriptive, cause/effect, comparison/contrast, argumentative. However, they equally need to be exposed to different genres so that they can function as competent writers inside and outside the university setting. As explained by Hyland (2007), Genre pedagogy advocates a writing instruction that combines language, content, and contexts. It offers students explicit and systematic explanations of the ways writing works to communicate, and how target texts are structured and why they are written in the ways they are. This

helps learners not only to see how grammar and vocabulary choices create meanings, but also to understand how language itself works, acquiring a way to talk about language and its role in texts (see section 1.4.2.3.). Urquhart and Mc Iver (2005) even add that teachers should get acquainted with typical examples of different genres in the target language, as well as find mechanisms to lessen the impact of L1 and FL by exposing learners to different examples of EFL writing style, in the sense of providing a wide exposure to the target language genre and culture, and drawing them to make cross-comparisons to understand cultural differences. In addition, Tribble (1996) advocates the interrelationship between genre and process approaches to teaching writing: the students follow the writing process cycle but resort to genre study when they feel a lack of sufficient information regarding the text or context they are addressing. In this way, genre and process approaches become two resources available to learners and teachers.

It follows that genre pedagogy seems to be more relevant to university writing requirements since students will be mostly required to write reports, articles, summaries, outlines, abstracts, research papers, formal letters and essays (Hamzaoui, 2010). Besides, an example of genre that Yasuda (2011) suggests for integrating in the writing course is that of writing e-mails to different readers. Yasuda maintains that genre awareness and knowledge that can be developed by email-writing tasks lead to improved knowledge of genre-specific language choices and to enhanced audience awareness. Consequently, students should be introduced to different writing genres in the target language via explicit strategic lessons (Cotteral and Cohen, 2003). But it is necessary for teachers to work in collaboration with writing teachers to see what kinds of essays students have been taught so that their assignments can function as practice for those types. Similarly, writing teachers have to be in touch with other subject-areas teachers in order to be informed of the type of writing tasks their students need most, and so devise a writing curriculum accordingly. It is noteworthy that instruction in genre develops students' task knowledge and person knowledge as they grow a better understanding of their needs as writers and so advance their metacognitive awareness of the writing process.

Writing Templates

One way to make students practise writing for different genres is to train them to use writing templates. This may be a further step towards metacognitive knowledge. Writing templates are models, skeletal syntactic frameworks_ parts of sentences or paragraphs with blanks to fill in with words of your choice. They provide a framework and reduce the physical effort spent on writing so that students can pay attention to organization and content. King (2007) conceived these templates to help students prepare for high-stakes tests; he offers examples ranging from writing sentences to writing different types of paragraphs, and exploring opportunities of variation on syntax, vocabulary, and different discourse functions of essays and other genres (such as introduction, argument, conclusion…). He also explains that these templates may need manipulation from the part of students in order to fit with the discussed topic, with their own ideas. With time and practice, students would lose the need to templates since they will be imprinted in their memory (see examples in Appendix M). Although the template models suggested by Kane concern essay writing, teachers and the students can be inspired to collaboratively produce templates for the different genres studied in class, as the following cause/effect paragraph template:

The_____of_____is due to many_____.
phenomenon (eg.of problem) reasons
problem factors
One reason is…….….
Another reason is ……..……
A third factor is…….
A final factor…….
_____, it seems_____that _____is caused by
To conclude clear
To sum up obvious
In short, relevant to say

Figure 6.4. A possible Template for a Cause/Effect Paragraph

It is worth adding that these templates are generative in the sense that they can be used and reused endlessly; they can be modified according to students' wish and needs of context. Thus, the researcher advocates the need for working and producing generative templates with the joint efforts of teacher and students. These templates should not be prescribed to learners, but should be emanating from students' analysis of writing genres, after negotiating meaning with the teacher.

Audience

In pre-university levels, the writing programme involves a sense of reader because learners are introduced to writing to a specific audience: friend, company, or the whole community. This is not often the case at tertiary level where considering audience when writing is not perceived as a realistic goal, as most student essays are usually addressed to the same reader, namely, their language teacher (Victori, 2002). Yet, readership should be part of the writing programme in terms of instruction and evaluation, because the main goal of writing is to prepare students to communicate effectively in a variety of situations at the University, in their future employment, and in their roles as citizens. While Beaufort (2008) calls for writing intensively and for different audiences, Harris (1993: 23) believes writers need to know as much as possible about a target audience to be able to communicate successfully. In this case, factors that need to be taken into account, Harris explains, are the formality or informality of the relationship between reader and writer, and the degree of prior knowledge and understanding that can be assumed. It is only after having enough information about the target audience that student writers are able to make informed choices as to the grammatical, lexical and semantic constructions to include in their written products. Thus, the teacher has to vary the writing activities in a way to expose learners to texts composed for different types of readers in order to make cross-comparisons, and to have them compose for different audiences with different writing conventions. In this context, Zemach and Stafford-Yilmaz (2008: 8) propose to identify your audience while writing, after asking a set of questions:

- Do they need any background information?
- Do they know a lot or a little about your topic?
- Do they have opinions about your topic?
- If so, are those opinions likely to be the same as or different from your own?

To sum up, by making explicit what is to be learnt, providing a coherent framework for studying language and contexts, teachers would ensure that course objectives are derived from and geared towards students' needs. Learners for their part are trained to develop problem-solving, self-reflection, and ultimately self-regulation and autonomy. These principles are of paramount importance within the LMD scheme, and within the globalised and technology-driven world.

6.3.4. Computer-Assisted Writing: Perspectives

Since the end of the 20th century, the technological development, together with the availability of Internet facilities, has asserted the necessity to include ICTs as an informed partner in education. Therefore, blended learning and more particularly CAW has been suggested as a major part of the instructional model to teach writing at university level, mainly that English as an international language is being used in technologically mediated contexts (Dudeney and Hockly, 2007), and that e-learning is a vital necessity at departmental, national and international levels and at the core of LMD objectives. To answer the third research question about the relationship between e-learning and writing instruction, we have to consider the results obtained in the practical phase and suggest further solutions for blended instruction that promotes writing, learning and thinking by the canal of ICTs.

To begin with, the guiding belief behind the incorporation of the teaching platform to the writing instructional model is that technology and metacognition can be mutually dependent for attaining a better writing instruction. The investigative procedures in the practical phase demonstrated that the teaching platform offered students an opportunity for individualized learning as every student could learn at his/her own pace (self-regulation), since they could download

the lessons, revise them whenever they need and do the related activities (cognitive strategies). They also received immediate or delayed feedback on their written products (developing task knowledge), and they could discuss given topics online and offline (social/affective strategies). It also promoted learner autonomy in that they could take in charge their own weaknesses, find appropriate solutions from different sources and learn collaboratively (self-reflection, problem-solving and social/affective strategies). All these are in correlation with CALLA principles and with LMD principles. Moreover, e-learning opened the possibility for interaction between teacher and students and between students themselves, what reinforces the idea of mediation between the teacher, the ICTs and students in a socio-constructivist dimension, where the teacher gives gradual support to the students in the use of ICTs, before training them in autonomy (Vygotsky; 1962, 1978). Yet, the platform faced a number of limitations and deficiencies (see section 4.3.4.2.); therefore, it becomes imperative to try and remedy those lacks by drawing on the knowledge and experience of informed scholars and teachers in order to come around mechanisms of implementing and improving blended instruction and CAW for better writing and learning achievement.

6.3.4.1. For an Effective Blended Writing Instruction

Many researchers maintain that networked computer technology has become prevalent in higher education, and support the positive effects for the use of networked computers in writing classrooms. Thus, computer-assisted writing (CAW) is seen as a solution to help students improve their proficiency. In fact, the first computer programmes designed to introduce computer assisted instruction focused largely on spelling, grammar, and other mechanical concerns. The more recent programmes attempt to provide support for student writers during the writing process, and for the sake of improving accuracy and style, using interactive strategies and integrated word processors (Palmquist, 2003). In the classroom, the teacher can use CDRoms, Power Point and Word Processors. Word processing is the most famous use of computers in the areas of drafting and revision. It provides student writers opportunities to write at word level (fill-in-the-blank, multiple-

choice, and true/false questions). Word processors also provide online assistance with dictionaries, spell checkers, and grammar helps. They also enable modeling texts, sharing texts, producing them collaboratively and engaging in activities that focus on the process of writing rather than on the final written products (while brainstorming, note-taking, outlining and revising). All of these contribute for a more creative use of language through the application of different writing strategies. In addition, research indicates that students who are comfortable with word processing write longer papers, spend more time writing and revising, and show improved mechanics and word choice. Research also shows that using a word processor does not by itself improve student writing; rather, the teacher has a critical role in guiding the writing process, providing feedback, and encouraging revision. Furthermore, Perez Alonso (2015) claims that typewriting cannot replace handwriting since while taking notes, handwriting activates cognitive skills more than board typing; thus, it is recommendable to try to combine both methods.

Other types of software, such as databases and spreadsheets, provide students with practice in storing and retrieving and manipulating information. In addition, there is a wide range of online applications which are already available for use in the foreign language class. These include dictionaries and encyclopedias, links for teachers, chat-rooms, pronunciation tutorials, grammar and vocabulary quizzes, games and puzzles, literary extracts. Internet also offers learners opportunities for updated references in the form of e-books, articles, or videos and thus facilitating research. It also permits ‘multimedia composing’ by allowing students’ self-expression and provides support for development of reading and writing skills. With proper training, students can learn to focus on the message instead of the mechanics. In addition, Internet provides opportunities for students to publish their written products at a local and even at an international level with the help of writing laboratories and teaching platforms. This can also be done in the form of forums, blogs, and wikis (Miyazoe and Anderson, 2010). Publishing their writings makes them feel more responsible for the final product and consequently makes them work more laboriously. Barrett (2002) even suggests digital portfolios in which students can write and reflect on their writing process. Additionally,

Internet enables cultural exchange and intercultural awareness and tolerance (social strategy). It is also proved to increase students' motivation (affective strategy), and provides room for self-controlled learning and so to autonomy (metacognitive strategy). In fact, Akturk and Sahin (2010) revealed a positive link between educational Internet use and metacognitive learning strategy.

Blended learning refers to a combination of e-learning and conventional learning approaches. When technology is interactively used among students, cooperative writing activities are strong motivators to help students develop writing skills since students share their writings with teacher and with peers and give room for different kinds of revision and evaluation (from teacher, peers and self), and so collaborative writing and learning is promoted (social and affective strategies). In fact, computers equally provide computer-assisted programmes testing language skills, which may include self-testing activities where feedback is immediate. Furthermore, Internet provides learners with possibilities for synchronous and asynchronous communication: Asynchronous communication refers to written communication with other learners or with native speakers (such as e-mails which constitute an authentic practice of reading and writing skills, though it does not require accuracy Harmer (2001: 261); they are independent of time and place and involve the concepts of both reciprocity and autonomy. Synchronous communication refers to real-time communication and entails the ability to brainstorm and receive immediate responses, ability to preserve a conversation in the form of a written log. It may involve the use of audio and video facilities. (Mevarech *et al*, 2007) posit that synchronous and asynchronous communication provides opportunities for collaborative learning, develops learners' metacognitive awareness but on condition of an appropriate scaffolded instruction (teacher's role is of paramount importance in initiating learners into this form of communication). For this reason, many educational computer programs available online enhance teacher instruction in several ways. Internet offers teachers free sites with programmes facilitating the preparation of lessons, activities and tests. Besides, a web-based writing instruction, through the adherence to writing laboratories, would also introduce students to a self-evident digital communication.

The research has proven that online communication increases when the course content is uploaded online (Johnson, 2002).The learners improve significantly their writings using a topic sentence, improved their spelling and grammar, used the punctuation marks and capitalization better than in the pre-test, and develop better coherent paragraphs, in addition to communication, interpersonal skills, 'active learning'. Besides, students are noticed to use high levels of thinking: analysis, synthesis and evaluation rather than being passive, listening and memorizing knowledge and comprehension (Adas and Bakir, 2013).

If blended writing instruction is to work, though, teachers and students alike should hold positive attitudes about it, and they should be adequately trained on its techniques. Teachers have to guide students as how to make part of writing programs by including them in writing instruction in a way to speed up the writing process. They equally have to provide learners with an appropriate writing environment in which they are scaffolded to write and reflect individually and collaboratively, within a constructivist vision of education. Besides, White (2003: 69) explains that tutors are expected to help learners in getting adapted to distance learning. They also ought to be aware of their students' needs and offer them motivating and individualized attention. In addition, teachers can provide practice in writing activities that require the use of ICTs in class and out of class, via e-mails, logging on writing laboratories or teaching platforms (moodles).

6.3.4.2. Towards Distance Tutoring

As recommended in the while-instruction phase, providing learners with an opportunity to develop their writing proficiency outside the university setting has a positive impact on students' proficiency and motivation. Distance education contributes in establishing more communication opportunities between teachers and learners and between learners themselves. In fact, the use of ICTs has given way to a new kind of writing: 'electronic writing'. To begin with, a common way to communicate tutors can introduce to learners is through *e-mail*. Teachers can set up a list of his/her students' e-mails and send them activities and topics for reflection or discussion. In addition, e-mails permit a permanent record of information; that is they can be referred to at any time, but fact-to-face discussion imposes presence at a specific timing. Students can even send their homework and receive feedback on it. *Computer conferencing* is another instance of distance learning. It provides room for group discussion and collaborative learning. Learners meet on a virtual place and post their questions, answers, or comments. These are recorded and can be reviewed when needed. They may even involve verbal communication ('real time') called instant messaging. Electronic conferencing is considered more effective when it has clear learning objectives and is monitored by an informed tutor.

In addition to e-mails and conferencing, the most useful websites for L2 writing teachers are Online writing labs (OWLs) hosted by many university language-centers or rhetoric departments. These laboratories focus on academic writing without the need for a face-to-face visit to the writing center, (Riling, 2005). But typically, they have links to other sites, offering teachers opportunity to download handouts and tutor manuals, and for students to learn writing or even to publish their written products. Online writing labs are said to support the development of autonomous and expert writers, at various stages of the writing process and across academic disciplines. Yastibas and Yastibas (2015) even suggest developing self-regulated learning through e-portfolios by making learners responsible of every step of e-portfolio-based assessment, such as selecting and organizing the content of e-portfolios, setting goals, and evaluating their learning process.

Another increasingly popular instance of distance learning is through a learning platform or Virtual Learning Environment (VLE), also known as *moodle* (*Modular Object-Oriented Dynamic Learning Environment*). A moodle is a web-based platform on which course content can be stored (an example of which is the one supporting our teaching platform in the practical phase of this research). It is accessed by learners on the Internet, and they can not only see course content, such as documents, audio and video lectures, but also do activities such as quizzes, questionnaires and tests, or use communication tools like discussion forums or text and audio chat. The teacher uses a blog to provide learners with lesson summaries related to links to extra activities. Providing students with sites will spare them wasting time and energy with all the existing sites, which may or may not be beneficial for them. The teacher can also schedule regular chat sessions for the learners, outside class time. Besides, the teacher can organize project work with the class involving ICT tools like blogs, podcasts (audio or video files) or wikis, and encourage learners to work on these projects outside class time, in virtual groups. The advantage of a VLE is that the teacher (online tutor) can see who has logged and when, and see what activities learners have done, or what documents and forums they have accessed. VLEs also provide tools for assessment and grading; thus, a teacher can evaluate a learner's written work or assignments in the VLE, along with their contributions to forums, and these grades can be automatically recorded. In fact, Adas and bakir (2013: 25) suggest devoting part of the semestrial grade to blended or distance writing instruction in order to motivate students to participate in online activities.

A potential development in distance learning is m-learning (standing for mobile learning). Technology is becoming increasingly mobile and is a natural and integrated part of younger learners; it can be used everywhere: at home, in class, at the library, in laboratories and using mobile facilities The goal of this project is to introduce digital content to language learners using mobile devices like cellular phones. The argument is that these students are mobile learners who are constantly on the move as parents and professionals. It is worth noting that distance tutoring may be considered as a solution to tutoring as proclaimed by LMD since it is

difficult for teachers and students alike to meet regularly at university level. Tutoring also requires rooms and may even require specific material and media. Therefore, distance tutoring saves time, energy and administrative constraints.

Still, Computer-assisted Language Learning can be inhibited by such barriers as financial issues, availability of computer hardware and software, technical and theoretical knowledge, and acceptance of the technology (Lee, 2000). Consequently, improving the facilities and the technical infrastructure by providing higher internet speed, wireless internet, and stronger servers are necessary for a more successful distance or blended learning instruction. Besides, it would be easier and more beneficial for students to have teachers in the department may collaborate and create one common site for all students, including downloaded lessons and activities, videotaped lessons, power point lessons, so that students could profit and improve all EFL subject-matters.

In short, writing and EFL instruction should be supported by a theorized practice that is reinforced by the use of ICTs, which would facilitate an authentic development of social and cognitive processes. But, the presence of ICTs depends on the context, and so their use or intake can be limited to the availability of equipment, the proficiency of teachers and to the involvement of students (Lee, 2000). Tutors can use a code 'agreed on' by both learners and tutors to indicate errors and suggest solutions or just make comments directly into the texts. More importantly, tutors can promote student writers' autonomy by assisting them in becoming self-editors by applying strategies of noticing their own errors and focusing on idea development and argument structures. Such autonomy creates a balance among linguistic complexity, accuracy, and the construction of meaning (Li, 2000). Bertin *et al* (2010: 114) for their part suggest that some specific tasks can be incorporated for the sake of awareness raising and learner training activities, followed by a debate in a forum which will drive them to reflect with their tutor. They believe that learners will even develop a sense of responsibility and ultimately autonomy. In fact, autonomy is attained when learners develop awareness of their learning process, succeed in taking appropriate decisions to face learning difficulties, and this refers to "a paradigm change in educational theory from an

instructivist transmission approach to constructivist and sociocultural theories of learning which are informed by pedagogical principles such as interaction, collaboration, learner control, and community" (Beaven, *et al.*, 2010). On the whole, blended and distance writing instruction is likely to train learners improving their EFL learning and writing proficiency (cognitive strategies), in addition to self-reflection and self-evaluation (metacognitive strategies), decision making (independence), and support (mediation: interdependence).

6.4. Conclusion

This doctoral research has provided evidence for mechanisms of implementing an instructional framework for teaching writing at university level: It is necessary to adopt main principles of CALLA and combine them with WAC and CAW. The first target would be raising metacognitive awareness in writing, but the ultimate goal would be awareness, self-regulation, and autonomy in EFL learning in general. By building metacognitive awareness, students develop more knowledge about writing and about themselves as writers and as learners; as a result, they overcome their anxiety and so build self-confidence in writing and hopefully in learning. Therefore, this is a call for (re)considering syllabus design at tertiary level.

Accordingly, there emerges a request for the meaningful teaching of grammar and vocabulary, in addition to clarifying the link between the different subject-matters in the syllabus, through Writing Across the Curriculum (WAC), and systemizing Computer Assisted Writing (CAW). As to the teaching platform, the teacher as a guide and a monitor should give learners more responsibility in lesson planning, and even create the need for ICTs.

Chapter six has thus included suggestions for exploiting the interrelationship between the different language skills, notably writing, reading and speaking. It has also permitted to suggest teaching and learning strategies and solutions to develop writing proficiency and learning autonomy, This was possible through collaborative writing, diary writing, and using generative templates, as well as reconsidering writing feedback and evaluation, in a way to develop students' self- reflection and evaluation. Therefore, teachers are introduced to innovative

ways of advancing their teaching practices in real and virtual environments: in class or at distance using technological means.

Nonetheless, the suggested teaching framework has to be carefully planned and implemented according to the gradation in the syllabus since the students are introduced gradually to language use and usage rules or to cultural content. The teacher, then, has to work in collaboration with other teachers of different subject-matters in order to adjust, accordingly, the content and the degree of difficulty of the writing lessons. Thus, genre pedagogy and content-based instruction seem to be an appropriate solution. Furthermore, there should be an integration of the four skills, particularly writing, in content subject-matters for a well-balanced EFL instruction. Moreover, the teacher has an essential role in the success of writing instruction; consequently, teacher-training has to take strategy-instruction into account. The teacher needs informed knowledge in learning and writing strategies in order to guide learners develop them, and thus attain independent learning. This would emphasise student-centred education.

Overall, this work has attempted to present a pedagogical framework which aims at forming EFL students with satisfactory learning and writing strategies. When they are better writers, they will be better learners and so better future teachers/workers. This research work seeks to implement a strategy-based instruction that favours the development of students' metacognitive awareness, beginning from the first university level and through the remaining years, with the objective of attaining self-awareness and self-regulation, and thus to autonomy of learning.

GENERAL CONCLUSION

GENERAL CONCLUSION

At the University level, writing is an essential skill for academic success. However, and despite a long exposure to the target language, Algerian EFL students end up their academic education and training with weak learning and writing proficiencies. This has expressed an urgent need to reconsider writing instruction at tertiary level. Current research in the field has renewed interest in writing as a functional skill which promotes language learning. Researchers have also highlighted the interrelationship between writing, thinking and learning, and so the importance of teaching writing and learning strategies alike. Moreover, the use of technology as a support to writing instruction is gaining more recognition for it enhances students' writing skills, promotes interaction, and enables more student-centered learning. This doctoral study has attempted, therefore, to suggest an academic framework for writing instruction that would improve learning and writing by developing learners' metacognitive awareness in writing to achieve an acceptable writing and EFL proficiency. This is done through a blended learning approach that combines different teaching and learning approaches, and which acknowledges the necessity for students to be competent writers and learners, for a digital communication. In essence the different research steps have tried to answer the following research questions:

1- What instructional model would develop metacognitive awareness in writing and achieve satisfactory mastery of this skill, at University level?
2- Would the development of metacognitive awareness in writing lead to academic achievement in writing and in EFL learning?
3- How can e-learning enhance writing and learning strategies instruction?

The different investigative procedures involved in the research methodology tried to provide evidence for the following research hypotheses:

4- Developing students' metacognitive awareness in writing requires an instruction that combines Cognitive Academic Language Learning Approach and Computer Assisted Approach.

5- The development of metacognitive awareness is likely to develop learning awareness and also lead to academic success in writing and in EFL learning.

6- The implementation of technology-enhanced instruction, namely by combining face-to-face and technology-based distance-learning, will encourage and facilitate students' performance in writing and thus would lead to better academic achievement.

This experimental study involved two 1LMD groups: an experimental group (EXP) and a control group (CTR) in the department of English in Blida University. It strived to provide classroom-based empirical data that would consider the effect of the metacognitive instruction (as an independent variable) on informants' awareness in writing, awareness in learning, and academic success (as dependent variables). Basically, different research instruments were used at three distinct phases during the implementation of the instructional model to respond to research inquiries: a metacognitive questionnaire, semi-structured interviews, scores analysis of writing and semestrial averages, in addition to a metacognitive-awareness raising instruction, inspired from CALLA teaching steps and comprising self- and peer- editing/scoring sheets, teacher conferencing, in conjunction with the use of a computer-based teaching platform which consisted in teaching writing lessons via distant learning and more precisely CAW. In order to arrive at academic conclusions, this doctoral thesis was divided into six chapters, each of which enlightened one facet of the research topic.

The literature review guided us to discover the multifaceted nature of the writing skill which covers learning, thinking and problem-solving. In addition, researchers and scholars recognize the close ties between metacognitive awareness in writing and success in EFL writing and learning. Equally important is the recognition of the place of technology in language learning in general and in writing in particular. The second chapter, describing the Algerian English Framework in the pre-university and university levels, enabled us to discover the disparity between the different levels of EFL instruction and to unveil the weak place that metacognition and technology maintained in EFL instruction. Besides, the LMD system was analysed in terms of principles and objectives. There emerged, then, a need to design a university writing instruction that would take into consideration the complexity of the writing skill, students' needs and learning objectives. To this end, the research design and methodology were substantially drawn in Chapter Three. Chapter Four described the results of analysis of the triangulation process in the pre- and while instruction phases. The results revealed learners' weaknesses at linguistic, cognitive and strategic levels. With Chapter Five, which focused on the post-instruction phase, more positive results came out; this led us to conclude that the suggested instructional framework succeeded in developing students' metacognitive awareness in writing and helped EXP group to outperform CTR group in writing and EFL scores. Chapter six thus attempted to improve the initial framework in a way to solve the raised students' writing and learning problems by incorporating CALLA principles, Writing Across the Curriculum approach and Computer Assisted Writing.

The different investigative instruments served to check the efficacy of the suggested instructional model and bring attestation of the research hypotheses and thus elucidation of the research questions. As regards the first hypothesis, it was partially confirmed, but the suggested instructional model needed to be supplemented by another approach in order to reach a more comprehensive and balanced pedagogic framework at University level. In fact, the resulting model (in Chapter six) represented an improvement of the first instructional framework, and the changes were introduced in response to students' needs and weaknesses, which

related mainly to language-mastery and to writing in different subject-matters. This required incorporating Writing Across the Curriculum Approach (WAC); moreover, the big number of students in each group and the limited time devoted to writing gave more arguments for the need and importance of CAW. Consequently, the academic framework that resulted from the study combined different learning and writing approaches, improving the initial instructional framework by supplementing CALLA and CAW with WAC.

By applying WAC, writing is seen as language learning and composing, within a content-based instruction. Through the composing practice, learners consolidate knowledge acquired about grammar, vocabulary and syntax with writing organizational devices and techniques. Furthermore, authenticity and meaningfulness of the writing tasks are ensured through genre pedagogy and content-based instruction, since it avoided isolating language from content. In addition, generative templates are used to help students internalize varied genre models. Nevertheless, the suggested teaching framework requires careful planning and implementation during the academic year, in a way to respect the gradation of the syllabus. Therefore, collaborative teaching is a must in order to attain a well-balanced EFL instruction.

In what concerns the second hypothesis, it was confirmed since the results suggested a positive effect of the used instructional model. The students in EXP group scored relatively better than those in CTR group, and so they had improved their English proficiency in general and their scores in the writing subject-matter in particular. In addition, students were noticed to progress over time, mainly through tasks such as self- and peer-editing, conferencing and the strategy-based instruction, paired with the teaching platform. Metacognitive awareness appeared slowly, and it occurred in different degrees and different forms among students; thus, personal variation also played a role and thus should be taken into consideration. However, some results could be proved statistically but not inferentially and so could not be generalized to the whole first year LMD population.

For the last hypothesis, the learning platform offered students an opportunity for individualized learning as every student could learn at his/her own pace. It also promoted learner autonomy in that they could take in charge their own weaknesses, find appropriate solutions from different sources and learn collaboratively. All these learning concepts are in correlation with CALLA principles. Moreover, e-learning opened the possibility for interaction between teacher and students and between students themselves. This reinforced the idea of mediation between the teacher, the ICTs and students in a socio-constructivist dimension, where the teacher gave gradual support to the students in the use of ICTs, before training them in autonomy. To sum up, writing and EFL instruction should be supported by a theorized practice that is reinforced by the use of ICTs, which would facilitate an authentic development of social and cognitive processes. However, the presence of ICTs depends on the context, and so their use or intake can be limited to the availability of equipment, the proficiency of teachers and to the involvement of students.

In other words, this doctoral thesis has provided a blended instructional model for teaching writing at university level by combining three different though interrelated approaches: CALLA and more precisely metacognitive awareness raising and strategy-based writing instruction, paired with authentic and meaningful teaching and integration of the different language skills and content subject-matters for more balanced EFL instruction, through WAC, and enriched with the integration of technology into the writing instruction, through CAW. This instructional framework proved to be successful and highly recommended if we aim at developing students' metacognitive awareness that would lead them to self-regulation and ultimately to autonomy.

It should be noted, however, that this study has encountered many difficulties and limitations such as large classes where it was difficult to give regular feedback, students' reluctance to use technology, and material constraints due to lack of necessary equipment, mainly computer laboratories with Internet connection. The most serious limitation is by no means the crash of the server and the loss of the teaching platform with its related writing lessons. We may also deduce that the time devoted for the treatment was not enough to arrive at conclusive results in what concerns the effect of the metacognitive instruction on academic achievement. Therefore, the experimental study requires to be extended to additional semesters so as to observe a substantial effect. In addition, different factors may be accounted for interfering while applying a suggested instruction, such as the instruction informants in both groups had in other modules (and so with other teachers), mainly in grammar, and in reading modules as they are the subject-matters most related to writing. In addition, even instruction in other subject-matters has a role to play: teachers of the different modules may or may not incorporate writing in their teaching practices. Furthermore, the type of instruction the learners have had in pre-university levels certainly has an impact on their present way of writing and learning. All these variables could not be controlled when carrying out the research.

Nevertheless, this doctoral thesis is hoped to give way to further research in the field of writing by

- exploring and adjusting teachers' and learners' beliefs about writing,
- designing a comprehensive programme for the teaching of writing in a way that promotes students' self-awareness and self-regulation,
- designing a computer software that assists the metacognitive regulation of students while learning writing and containing templates for different rhetorical modes,
- institutionalising Technology-based Instruction at tertiary level, and
- promoting metacognitive-awareness raising instruction at university level for all subject-matters in the EFL syllabus.

To conclude, writing is not a mere skill; it is an act for making meaning and advancing thinking. Writing has a functional role to play in the course of studies; it is a learning tool and thus has to be promoted as such. The goal of this study is to produce innovation and change in the university writing curriculum in terms of instruction and evaluation. The suggested instructional framework is compelling and advisable in order to guide students in developing their metacognitive awareness in order to achieve critical thinking and learning skills, self-reflection and self-regulation, and ultimately autonomy.

Consequently, there emerges a necessity to reinforce learner-centred education and reconsider syllabus design, along with redesigning the suggested academic structure for teaching writing at tertiary level, on the basis of learners' writing and learning needs in order to ensure better learning outcomes. Furthermore, it seems important to note that in order for literacy to function effectively at university level, learning objectives, teaching methodology and classroom practices have to be rooted from and directed towards our Algerian context. This would enable a thoughtful and successful implementation of LMD system, in a way to be in pace with a globally-imposed education. Therefore, the objective of this work is to contribute with a pedagogical framework which aims at producing self-regulated and autonomous EFL students with satisfactory learning and writing strategies in a digital era. Students are meant to improve in writing, in EFL learning, and in technology-dominated lifelong learning.

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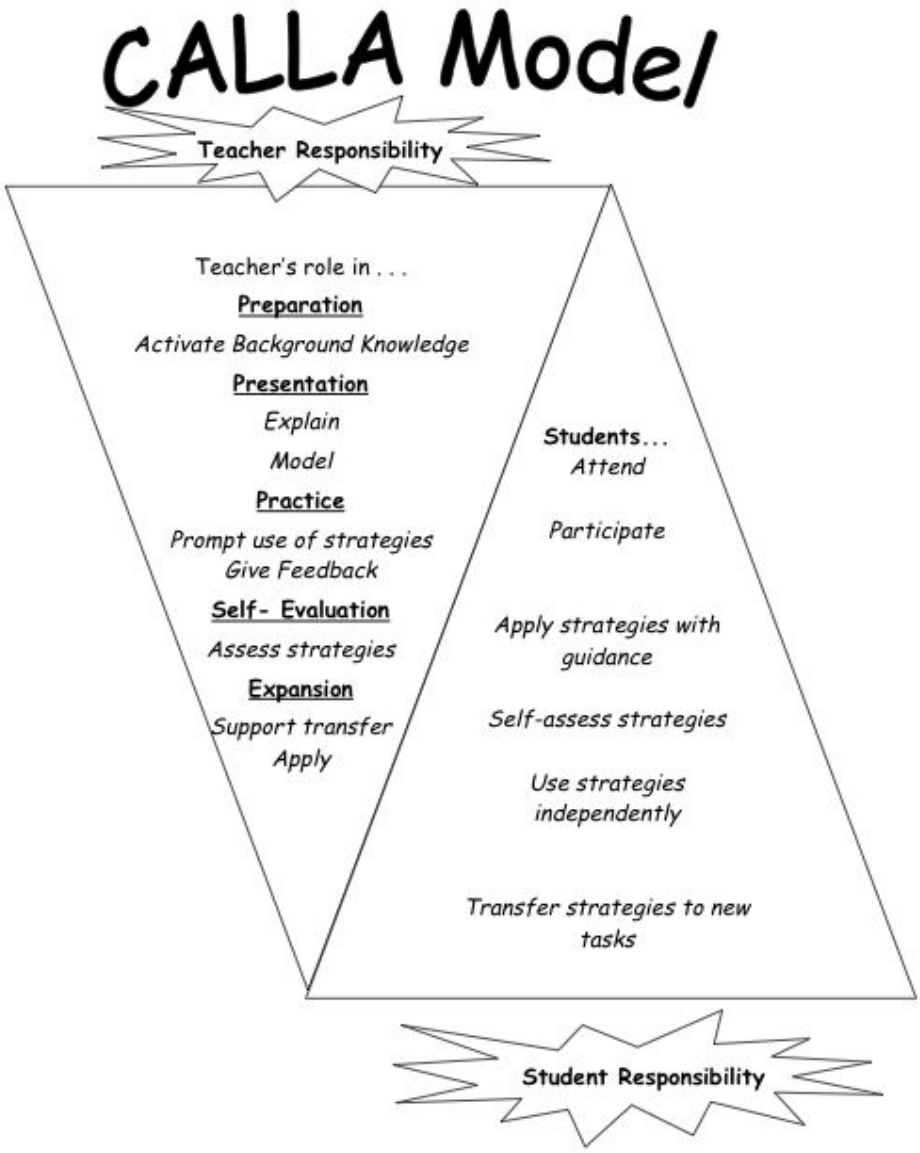
APPENDICES

<u>Appendix A:</u> CALLA Model



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(Chamot et al, 1999: 46)

Appendix B: Writing Activities in MS1 Textbook

files	writing activities	project work
1/ hello	- rearranging letters to form words -ordering sentences to form a dialogue - writing an e-mail to a friend	- make a tourist brochure
2/ family	- word formation - writing a postcard to a pen pal - completing a dialogue	- make a card game - make your family profile
3/ sports	- reordering a dialogue - writing a paragraph after answering given questions	- make a sport magazine
4/ in and out	- writing a postcard - making a poster about a chosen animal -writing about regular activities - translate sentences into your language - correct spelling mistakes	- make a poster about wild, domestic animals and pets - make a questionnaire about your friends, school, town..
5/ food	- writing a cooking recipe (instructions) - rewrite a paragraph by correcting punctuation - correct spelling mistakes	- make a recipe book - make menus for a week
6/ inventions and discoveries	- reordering a story - writing a paragraph following a given model - replying to an e-mail - translate expressions in your language	- make a children's book of inventions - make a civilization profile in the form of a 'wheel of knowledge' game
7/ environment	- write about rights and duties in the form of instruction	- make a junior animal encyclopedia - make the profile of your ideal city

<u>Appendix C</u> : Sample Learning Logs in MS 3 and MS4 Textbooks

A Sample Learning Log, MS3 Textbook, p.50

LEARNING LOG

A. Tick (√) the things you can do in English.

I can…

give and return greetings;

introduce someone to someone else;

apologise for something wrong I have done;

ask for clarification for something I haven't understood;

make and respond to offers;

make and answer requests;

ask and answer questions about likes and dislikes;

speak about physical appearance and personality;

make, accept, or decline invitations;

use adjectives in the right order;

read for detail;

write letters of apology, letters of sympathy and thank-you notes;

write an application letter

B. What do you need to study again?

1. …….

2. …….

3. ……..

4. …….

5. ……..

A Sample Learning Log, MS4 Textbook, p.39

LEARNING LOG

Copy the questionnaire below in your learning log. Fill it in and hand a copy of it to your teacher. Don't write your name on it.

I can…	**very well**	**fairly well**	**a little**
A. Use tag questions to ask for agreement.			
B. Use tag questions to ask for information.			
C. Use appropriate intonation in tag questions.			
D. Use polite forms (what would you…).			
E. Derive adjectives adding the suffix –ed to verbs.			
F. Pronounce words containing silent letters.			
G. Use the imperative and sequencers.			
H. Write instructions for a recipe.			
I. Order a meal from a menu.			
J. Describe a dish.			
K. Speak about nutrients using comparatives.			
L. Read and interpret nutrition information on food labels.			
M. Pronounce words containing the vowel sounds /ɪ/ and /i:/			
N. Cope with difficult Vocabulary.			
O. Distinguish between opinion and fact in a text.			
P. Draw conclusions from stated facts.			

Appendix D: A Sample Self-Assessment Grid in SE3, p.43

ASSESSMENT

Language assessment

1) Show what you can really do with language items checklisted in the learning log below by using them in illustrative sentences of your own.

I can	**very well**	**fairly well**	**a little**
A. Speak about beliefs and customs using **used to**.			
B. Ask for and give information about a civilization using **ago**.			
C. Speaking about obligations in the past using had to.			
D. Talk about the past achievements of ancient civilizations.			
E. Use appropriate articles with concrete and abstract words.			
F. Use **though/although/ despite the fact that/ in spite of the fact that** to express concession.			
G. Narrate a very short episode in the life of a legendary figure using the past simple, the past perfect and appropriate conjunctions of time.			
H. Use adjectives and verbs with **dependent prepositions**.			
I. Use the comparatives and the superlatives of quantifiers: **much, little, many, few**.			
J. Make compound adjectives with **well+past participle**.			
K. Spell words correctly when I add to them such endings as **-ed, -ing,** -s and **-er**			
L. Pronounce the **–ed** ending correctly			
M. Pronounce the past forms of the auxiliary **be**.			
N. Pronounce words containing letters **ch**.			

2) Tich (√) next to each item in the learning log to indicate what you think is your level of performance. Then hand a copy of the learning log with your examples on a separate page to your teacher.

Skills and strategies assessment

Take the test that your teacher will assign to you on one of the texts in **Resources Portfolio** at the end of this book so as to check your progress in terms of skills and strategies.

<u>Appendix E</u>: How Self-Reflection/ Evaluation is Part of Written Expression Section in MS curriculum (except for MS1)

	MS1	**MS2**	**MS3**	**MS4**
productive writing	Can fill in forms or give simple details in writing using - about personal information (e.g. family, school, address) - very basic and unconnected sentences and phrases. Can write a very short, basic holiday greeting or travel postcard/email - - short and simple sentences and phrases - using memorized language - following a a prescribed format	Can write very short, factual descriptions - about personal information (e.g. family, home, school/work, friends) - using a few formulaic sentences. Can write personal notes and email that - on routine topics (e.g. travel, thanks and apology) - following a standard formula **Can plan for, use and valuate the effectiveness of one or two very basic writing strategies** **- to generate ideas and create a draft of a text**	Can write short, factual descriptions - about his/her basic environment (e.g. people, places, school/work, living conditions),and - about uncomplicated past activities, personal experiences and events - as a list of simple sentences -linked with most common connectors (e.g. and, but, because) Can write very short letters or email - containing simple description of personal life. **Can plan for, use and evaluate the effectiveness of a few basic writing strategies to** **- generate ideas and** **- create a draft of a text**	Can write short narratives and factual descriptions - on familiar topics of personal interest - as a loose paragraph of related ideas - using common connectors (e.g. and, but, because, so, then, next, finally) Can write short, personal letters or email - on familiar topics of personal interest, - to provide description and ask questions - that follow a conventional format consisting of one main paragraph Can write basic instructions and directions - about routine matters (e.g. recipes, how to get to a site of interest, how to do something), that are generally coherent **Can plan for, use and evaluate the effectiveness of several writing strategies to** **- generate ideas and create a draft.**

<u>Appendix F</u>: How Self-Reflection/ Evaluation Is Part of Written Expression Section in SE Curriculum

	SE1	**SE2**	**SE3**
productive writing	Can write short narratives, descriptions and factual reports - on personal and/or concrete topics (e.g. diary entries, imaginative stories, reports, advice letters). - getting across in writing points he/she feels are important - organized into two paragraphs that are unified by topic. Can write a personal letter - conveying news and asking for/making brief comments about a friend's news - about topics of interest related to self and community following a conventional letter format consisting of one main detailed paragraph. Can write basic instructions and directions - about routine matters (e.g. recipes, how to get to a site of interest, how to do something), that are generally coherent **Can plan for, use and evaluate the effectiveness of writing strategies related to each step of the writing process.**	Can write narrative, descriptive and expository texts - on a range of familiar matters and topics of interest - that are traight forward and - consist of relatively cohesive two-three paragraph Can write a short, persuasive letter to the editor on a familiar matter - that exhibits simple characteristics of an argument Can write personal letters - giving news and expressing thoughts and opinions - about matters on topics of interest related to self and community and beyond - responding to the news of his/her correspondent - following a conventional format of more than one paragraph. **Can plan for, use and evaluate the effectiveness of several writing strategies related to each step of the writing process.**	Can write narratives, descriptions, expository texts or essays (e.g. articles for media, reports, essays, film reviews) - on a variety of concrete and more abstract subjects related to his/her interests and studies - that are relatively detailed - consist of three generally clear and cohesive paragraphs. Can write a simple factual argument - exhibiting a line of development which includes some subsidiary points and relevant examples, and a conclusion. Can write personal letters - giving news and expressing thoughts and opinions - about well-known abstract socio-cultural topics (films, music, well-known contemporary issues or news) and - commenting on the news and thoughts of his/her correspondent. **Can plan for, use and evaluate the effectiveness of several writing strategies related to each step of the writing process.**

<u>Appendix G</u>: Common LMD EFL Curriculum for First and Second Year Levels (Socle Commun domaine «Lettres et Langues Etrangeres »)

Socle commun domaine "Lettres et Langues Etrangères"

Semestre 1

Unité d'enseignement	Matières		Crédits	Coefficient	Volume horaire hebdomadaire			VHS (15 semaines)	Autre*	Mode d'évaluation	
	Code	Intitulé			Cours	TD	TP			Contrôle Continu	Examen
UE Fondamentale Code : UEF11 Crédits : 10 Coefficients : 6	F111	Compréhension et expression écrite 1	6	4	1h30	3h00		67h30	45h00	x	x
	F112	Compréhension et expression orale 1	4	2	1h30	1h30		45h00	45h00	x	x
UE Fondamentale Code : UEF12 Crédits : 8 Coefficients : 4	F121	Grammaire de la langue d'étude 1	4	2	1h30	1h30		45h00	45h00	x	x
	F122	Phonétique corrective et articulatoire 1	2	1		1h30		22h30	45h00	x	x
	F123	Initiation à la linguistique 1 (concepts)	2	1	1h30			22h30	45h00	x	x
UE Fondamentale Code : UEF12 Crédits : 4 Coefficients : 2	F131	Initiation aux textes littéraires	2	1	1h30			22h30	45h00	x	x
	F132	Culture (s)/ Civilisation(s) de la Langue 1	2	1	1h30			22h30	45h00	x	x
UE Méthodologique Code : UEM11 Crédits : 4 Coefficients : 1	M111	Techniques du travail universitaire 1	4	1	1h30	1h30		45h00	45h00	x	
UE Découverte Code : UED11 Crédits : 2 Coefficients : 1	D111	Sciences sociales et humaines 1	2	1	1h30			22h30	45h00		x
UE Transversale Code : UET11 Crédits : 2 Coefficients : 1	T111	Langue(s) étrangère(s) 1	2	1		1h30		22h30	45h00	x	x
Total semestre 1			30	15	12h00	10h30		337h30	450h00		

Autre * = travail complémentaire en consultation semestrielle

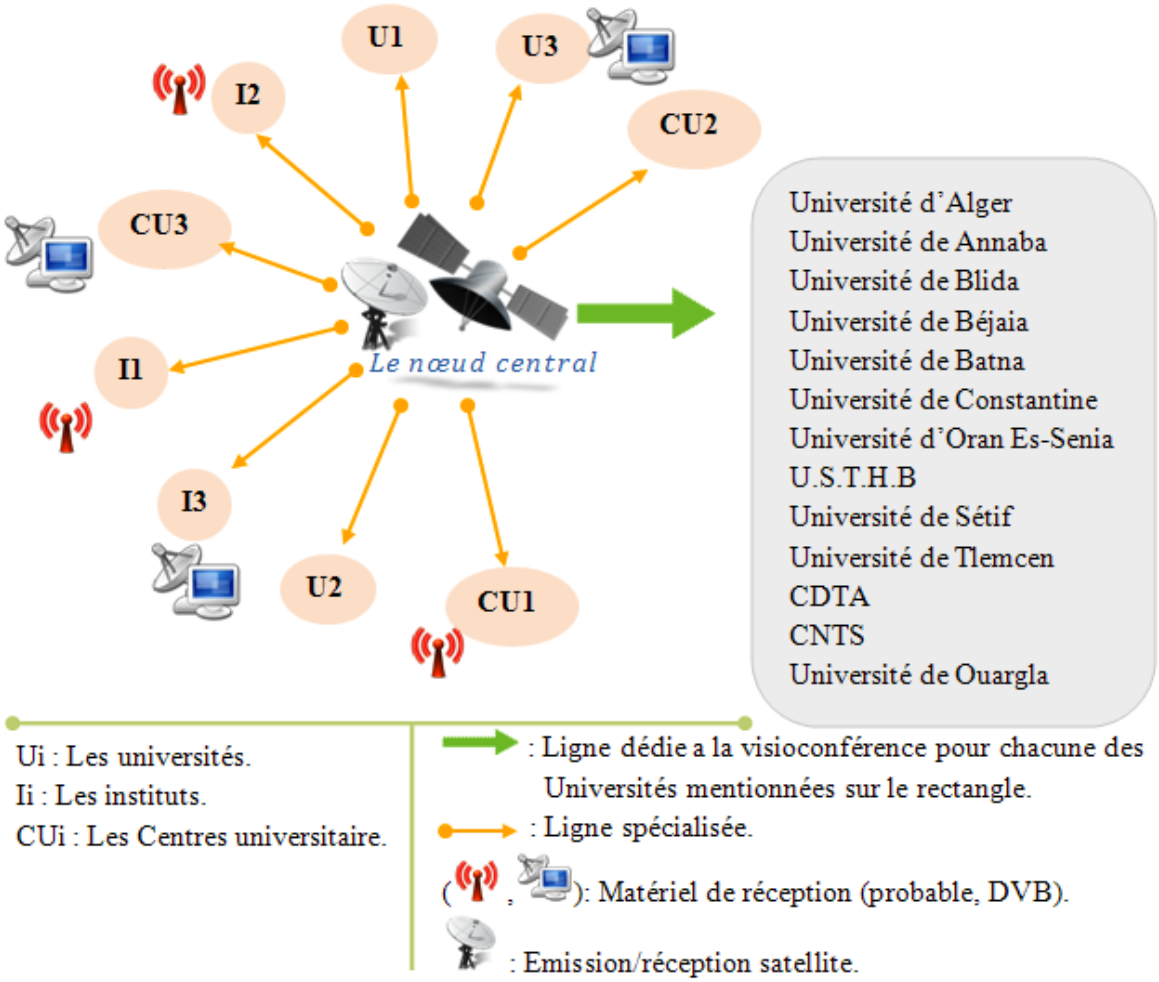
Socle commun domaine "Lettres et Langues Etrangères"

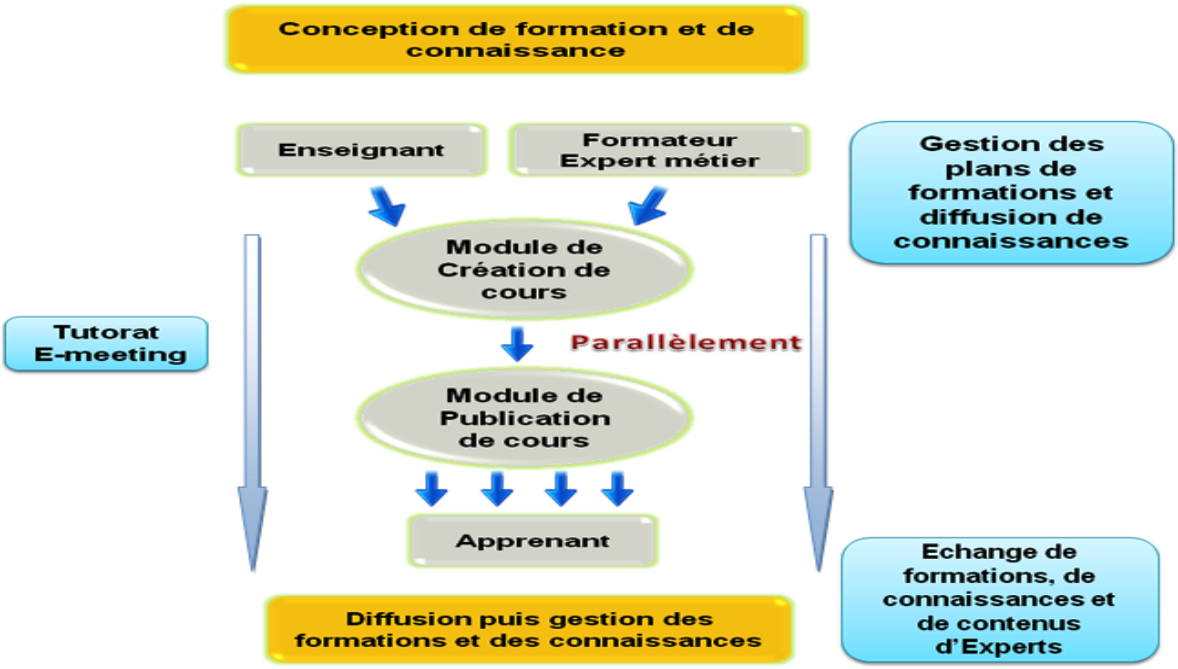
Semestre 3

Unité d'enseignement	Matières		Crédits	Coefficient	Volume horaire hebdomadaire			VHS (15 semaines)	Autre*	Mode d'évaluation	
	Code	Intitulé			Cours	TD	TP			Contrôle Continu	Examen
UE Fondamentale Code : UEF31 Crédits : 10 Coefficients : 6	F311	Compréhension et expression écrite 3	6	4	1h30	3h00		67h30	45h00	x	x
	F312	Compréhension et expression orale 3	4	2	1h30	1h30		45h00	45h00	x	x
UE Fondamentale Code : UEF32 Crédits : 6 Coefficients : 3	F321	Grammaire de la langue d'étude 3	4	2	1h30	1h30		45h00	45h00	x	x
	F322	Introduction à la linguistique 1	2	1	1h30			22h30	45h00	x	x
UE Fondamentale Code : UEF33 Crédits : 4 Coefficients : 2	F331	Littératures de la langue d'étude 2	2	1	1h30			22h30	45h00	x	x
	F332	Culture (s)/ Civilisation(s) de la Langue 3	2	1	1h30			22h30	45h00	x	x
UE Méthodologique Code : UEM31 Crédits : 4 Coefficients : 1	M311	Techniques du travail universitaire 3	4	1	1h30	1h30		45h00	45h00	x	
UE Découverte Code : UED31 Crédits : 4 Coefficients : 1	D311	Initiation à la traduction 1	4	1	1h30	1h30		45h00	45h00	x	x
UE Transversale Code : UET31 Crédits : 2 Coefficients : 1	T311	Langue(s) étrangère(s) 3	2	1		1h30		22h30	45h00	x	x
Total semestre 3			30	14	12h00	10h30		337h30	405h00		

Autre * = travail complémentaire en consultation semestrielle

<u>Appendix H</u>: E-learning Project in Algerian Universities (MESRS: Projet National de Télé-enseignement, http://services.mesrs.dz/e-learning/index.php**)**




Conception de formation et de connaissance
Enseignant
Formateur Expert métier
Gestion des plans de formations et diffusion de connaissances
Module de Création de cours
Tutorat E-meeting
Parallèlement
Module de Publication de cours
Apprenant
Echange de formations, de connaissances et de contenus d'Experts
Diffusion puis gestion des formations et des connaissances

Appendix I: Students' Questionnaire

Dear students,
You are kindly requested to answer the questions, and tick in the right box(es). **There are no right or wrong answers** to these statements.
Male ☐ Female ☐ Age ☐

High School Stream……
Learning experience in English (number of years) …….

Part1: Person knowledge

7- What are the main difficulties that you have encountered during your university studies till now?
Difficulty of the lessons ☐ Number of modules ☐ Homework ☐ Exams ☐
If other, please specify……..

8- Do you like writing in English?
I don't like it at all ☐ I don't like it ☐ I have no feelings about ☐ I like it ☐ a lot
Please, say why?.....

9- Is learning to write important for your success as a student?
Not really ☐ to some extent ☐ extremely ☐
Please, say why?.....
……
…

10- Please circle the right number to rate from 1 (no ability) to 5 (excellent) your current ability in English 1 2 3 4 5
Please, say why……

11- Please circle the right number to rate from 1 (no ability) to 5 (excellent) your current ability in Writing 1 2 3 4 5
Please, say why……

12- On a scale from 1 (cannot do it) to 5 (completely sure I can do it), show how confident you feel when you perform the writing tasks necessary for your work. Tick in the right column.

Items	1	2	3	4	5
1- Write a clear, focused and unified text that stays on topic.					
2- Use details to support my ideas.					
3- Use effective words in the text.					

4- Write a well-organised text.					
5- Write well-structured sentences.					
6- Use correct grammar.					
7- Correctly spell all words.					
8- Correctly use punctuation.					
9- Avoid L1 (Arabic) and L2 (French) interference.					
10- Write successfully in different types of texts.					
11- Write successfully in all modules.					

Part 2: Task knowledge

7- When you write in English, to what extent do you consider the following items?

Items	**Not at all**	**To some extent**	**To a great extent**
The topic			
The purpose			
The audience (the readers)			
The structure and organization of the writing task			

8- What do you do/should you do most to improve your writing competence? Tick in the right box(es).

- Read more ☐
- Have more writing practice ☐
- Have more knowledge and practice in grammar and vocabulary ☐
- Reflect on writing and learning experiences by writing in a learning journal ☐
- Cooperate and write with classmates ☐
- Have interesting and authentic writing topics, tasks and projects ☐
- Have a good teacher and effective teaching methodology ☐
- Have a good command of technological tools, mainly the computer ☐
- Log on web-based writing-laboratories ☐
- If other, please specify…….
  ……
  …

9- How do you prefer correction of your writing to be

by yourself ☐ by classmates ☐ by the teacher ☐

Say
why?.....
……

Part 3: Strategic knowledge

A/ learning strategies

10- What strategies have you often adopted for your studies this year? Tick beside the right answer(s).

- note taking ☐
- learning with peers ☐
- reading related books ☐
- making notes while reading ☐
- writing essays/ paragraphs ☐
- asking questions ☐
- lesson summarizing ☐
- consulting the Internet ☐

If other, please specify……..
…….

11- What aspect(s) of the language do you think you still need to improve?.....……
…

12- Do you regularly write paragraphs/essays in other modules to improve your proficiency level?

YES ☐ NO ☐

Please, say why?.....

13- When you have trouble while learning, what do you usually do?

- You try to overcome problems individually ☐
- You ask our classmates for help ☐
- You ask your teacher(s) ☐

Please, say why?.....

B/ The writing process proper

14- Please read each statement and tick in the appropriate column (1, 2, 3, 4, or5) that tells **how true of you the statement is**.

1 (never true); 2 (usually not true);3 (somewhat true); 4 (usually true); 5 (always true)

a) Before I start writing in English,

Items	1	2	3	4	5
1- I try to remember all I know about the topic.					
2- I look at a model written by a native speaker or more proficient writer.					

3- I think about what I want to write, and have a plan in mind but not on paper.					
4- I use different pre-writing techniques.					
5- I write an outline of my paper.					
6- I think about the purpose of my writing.					
7- I think about the person(s) who would read my paper.					

b) While writing

Items	**1**	**2**	**3**	**4**	**5**
1- I start with the introduction.					
2- I reread what I have written to get ideas how to continue.					
3- I go back to my outline and make changes in it.					
4- I try to remember what I still know about the topic.					
5- I go sure for grammar and vocabulary.					
6- If I don't know a word in English, I write it in French or in Arabic, and later try to find an appropriate English word.					
7- If I don't know a word in English, I stop writing and look up the word in the dictionary.					
8- When I can't remember a word I wanted, I just use a different word.					
9- I ask my peers or the teacher to help me when I have problem while writing.					
10- I think about the purpose of my paper.					
11- I think about the people who would read about my story.					
12- I use the computer to write quickly.					

c) When revising

Items	**1**	**2**	**3**	**4**	**5**
1- I use a dictionary while revising.					
2- I check and make changes in vocabulary, spelling and grammar.					
3- I use a computer spell-checker.					
4- I make changes in sentence and paragraph structure.					

5-	I revise the draft for content and clarity of meaning.
6-	I check if my paragraph/essay matches the topic requirements.
7-	When I finish my first draft, I ask a classmate to read it and make suggestions.
8-	I show my text to the teacher and ask for his/her opinion.
9-	I edit my draft individually.
10-	I check my mistakes after I get back the paper with feedback from the teacher, and try to learn from them.

***(*Adapted from Petri &Czarl, 2003)**

Appendix J: Self-editing Sheet

Example: The paragraph
Writer……..Date……..

Format

My paragraph is correctly formatted yes no

Organisation

My paragraph begins with a topic sentence and ends

with a concluding sentence. yes no

I use listing order to organize my paragraph yes no

I use transitions to signal each main point yes no

Sentence Structure

Every sentence has at least one S V and expresses

a complete thought yes no

Punctuation, capitalisation, an spelling

I put a period after every sentence. yes no

I used capital letters correctly. yes no

I checked my spelling. yes
no

Personal grammar trouble spots
Number found and corrected

I checked my paragraph for …….errors
……

(verb tense, article, etc)

(Hogue, 2008: 196)

Appendix K: **Peer-editing Sheet**

Example: Paragraph Format
Peer editor:……..Date……..

1. Is the paragraph interesting? Yes no
……

2. Do you understand everything? Yes no
……

3. Would you like more information on the topic? Yes no
……

4. Does the paragraph contain a topic sentence and a concluding sentence?
Yes no
……

5. Is the paragraph well structured? Yes no
……

6. In your opinion, what is the best feature of this paragraph?
Yes no
……

Adapted from (Hogue, 2007: 202)

Appendix L: **A Scoring Rubric for Tests**

Example: The paragraph

	Maximum score	**Actual score**
Format	**5**	**……**
Punctuation and mechanics	**5**	**……**
Content	**20**	**……**
Organization	**35**	**……**
Grammar and sentence structure	**35**	**……**
total	**100**	**……**

Adapted from (Oshima and Hogue, 2007: 196)

Appendix M: **Template models (Kane, 2007)**

Example 1: Comparison/Contrast Thesis Sentence Template (King, 2007:13)

_____some_____similarities,		
Although they bear	superficial	
Despite bearing	minor	
the differences between_____and_____are		
		clear
		remarkable
		striking
		pronounced

Example 2: ***Body template, Opposing Argument*** **(King, 2007: 94)**

Proponents of the opposing view argue that_____.

In light of this, _____conclude that _____?

shall must

Not necessarily. _____X_____.

(In x**,** you attempt to demolish the opposition argument or at least put a good dent in it.)

Example 3: ***Conclusion Template (King, 2007: 78-79)***

_____, let me recapitulate the main_____of my _____.		
To conclude	facets	narration
In conclusion	points	argument
		comparison
_____x_____.		
Obviously, not every issue related to ___y____has been _____.		
		discussed
		undertaken
		examined
What_____for further_____is/are_____z.		
	I leave	investigation
	is left	commentary
	remains	undertaking
		discussion

Example resulting conclusion:

*To conclude, **let me recapitulate the main** facets **of my** narration. Community service is vital for a thriving democracy, and all citizens should do it. Reading to the blind would be my choice of service. **Obviously, not every issue related to** community service **has been** discussed. **What** I leave **for further** commentary **is** an understanding of how the message of voluntary community service can be spread to the wealthy folks who would rather play golf.*

Appendix N: Joseph Reynolds essay about journal writing

"I Think (and Write in a Journal), Therefore I AM"

"I write, therefore I am", wrote Samuel Johnson (1), altering Descartes' (2) famous dictum: "I think, therefore, I am."

When writing in my journal, I feel keenly alive and somehow get a glimpse of what Johnson meant.

Mu journal is my storehouse, a treasure of everything in my daily life: the stories I hear, the people I meet, the quotations I like, and even the subtle signs and symbols I encounter that speak to me indirectly. Unless I capture these things in writing, I lose them.

All writers are such collectors, whether they keep a journal or not; they see life clearly, vision we only recognize when reading their books….

By writing in my own journal, I often make discoveries. I see connections and conclusions that otherwise would not appear obvious to me. I become a craftsman, like a potter or a carpenter who makes a vase or a wooden stoop out of parts. Writing is a source of pleasure when it involves such invention and creation.

I want to work on my writing, too, hone it into clear, readable prose, and where better to practice my writing than in my journal. Writing, I'm told, is a skill, and improves with practice. I secretly harbor this hope. So my journal becomes the arena where I do battle with the written word.

Sometimes when I have nothing to write, I sit idly and thumb back through old entries. I rediscover incidents long forgotten.

During a recent cold midwinter night, for example, I reread an entry dated a summer ago. My wife and I had just returned after a day at the beach. We were both tired and uncomfortable after the long ride home, but our spirits were lifted when we saw our cat come down the drive way to greet us, her tail held high shouting her presence By reading this entry, I relived the incident, warming with affection for my cat and a sunny day at the beach.

I always try to write something, however, even if it is free writing, writing anything that comes to mind. Often this process is a source of a "core idea" that can later be developed into a more finely polished piece of writing. The article I've published had their inception in my journal.

Journal writing, in addition, is a time when I need not worry about the rules of spelling and grammar; it provides a relaxed atmosphere in which my ideas and feelings can flow freely onto the page. If I discover an idea worth developing, then [I rewrite].

My journal becomes a place where I can try different kinds of writing, as well, from prose and poetry to letters to the editor. Attempting different kinds is useful…my writing improves.

When I write in my journal, I seek the solitude of my study. With pen in hand, I become omniscient; I am aware of the quiet, damp, night air, or the early-morning sounds of life. My journal is the place where I discover life. …for these few moments, at least, … I am.

(1) Samuel Johnson: 18th century English writer

(2) Descartes: 17th century French philosopher

ملخص

الهدف الرئيسي من أطروحة الدكتوراه هذه هو إعادة النظر في تصميم مناهج اللغة الانجليزية في مرحلة التعليم العالي، من خلال استكشاف العلاقة بين الكتابة والتعلم والتفكير في إطار تعليمي يتضمن التعلم المزيج مع التعبير الكتابي. يدمج النموذج التربوي المقترح بعض مبادئ CALLA مع الكتابة بمساعدة الحاسوب (CAW) من اجل تطوير الوعي المعرفي في عملية الكتابة لتعزيز نجاح الطلبة في التعلم والكتابة على حد سواء. قدمت أدوات البحث المختلفة دليلا على فعالية الإطار التربوي المقترح و حثت علي إضافة نهج ثالث: الكتابة من خلال المنهج الدراسي(WAC) من اجل تلبية احتياجات الطلبة في التعبير الكتابي و في تعلم اللغة الانجليزية عامة. يمزج الإطار التعليمي الناتج بين CALLA ،CAW و WAC.الغاية منه هو تدريب طلبة اللغة الانجليزية في نظام ل م د على تطوير الوعي المعرفي في الكتابة. ولكن في نهاية المطاف، فانه يستهدف لتكوينهم في التنظيم الذاتي والاستقلالية، بطريقة تسهل لهم الانضمام إلى عالم الاتصال الرقمي.

الكلمات المفتاحية: الكتابة، الوعي المعرفي، التعلم المزيج CALLA، CAW و WAC.

Résumé

L'objectif principal de cette thèse de doctorat est de reconsidérer l'enseignement de l'écriture en langue anglaise au niveau universitaire en explorant la relation entre l'écriture, l'apprentissage et la réflexion grâce à un cadre d'enseignement qui intègre l'apprentissage mixte et l'écriture. Le modèle proposé intègre certains principes de CALLA avec l'écriture assistée par l'ordinateur (CAW), pour développer la conscience métacognitive des apprenants pendant le processus d'écriture, et de mener ainsi les étudiants de l'anglais à des résultats meilleurs en écriture et en langue anglaise en général. Les différentes procédures de triangulation ont fourni des preuves de l'efficacité du cadre pédagogique proposé et ont appelé à l'ajout d'une troisième approche: l'écriture à travers le programme (WAC), afin de répondre aux besoins des étudiants, liés à l'écriture et à l'apprentissage de la languge. Le cadre pédagogique de l'enseignement de l'écrit qui résulte de cette recherche fusionne CALLA, CAW, et WAC. Son objectif est d'échafauder les apprenants de l'anglais, du système LMD, dans la conscience métacognitive durant l'expression écrite, mais il vise éventuellement à les former à l'auto-régulation et à l'autonomie, de manière à accéder à la communication numérique.

MOTS CLÉS: l'écriture, la conscience métacognitive, apprentissage mixte, Calla, TCA, WAC

Abstract

The main objective of this doctoral thesis is to reconsider the teaching of EFL writing at university level by exploring the interrelationship between writing, learning, and thinking through an instructional framework that incorporates blended learning and writing. The suggested model combines some principles from CALLA with Computer Assisted Writing (CAW) so as to develop students' metacognitive awareness during the writing process, and lead EFL students to writing and learning achievement. The different triangulation procedures provided evidence for the effectiveness of the proposed pedagogic framework and called for adding a third approach: Writing Across the Curriculum (WAC), in order to meet students' writing and learning needs. The resulting writing instructional framework combines CALLA, CAW, and WAC. Its objective is to scaffold LMD EFL learners in metacognitive awareness in writing, but ultimately it targets to train them in self-regulation and autonomy, in a way to adhere to digital communication.

KEY WORDS: writing, metacognitive awareness, blended learning, , CALLA, CAW, WAC

SUMMARY

For many decades after independence, the Algerian University has strived to achieve its fundamental objectives for national development and cope with worldwide changes. And because of gobalisation requirements, the successful teaching and learning of EFL has become one of its objectives. Nevertheless, our university graduates end up their education with low an achievement that does not reflect the wide exposure to the target language learning, the energy of teachers or the administrative facilities devoted to the service of a successful instruction. These learners strive to have their 'Licence' degree with the hope of becoming proficient learners, future competent teachers, or efficient workers; in a word, efficient citizens. The truth is unfortunately deceiving since these graduates display a low proficiency level and poor strategies mastery, mainly in basic language skills, among them writing.

In order to improve learning quality, satisfy needs of labour market, provide opportunity for lifelong learning, and increase international mobility of Algerian faculty and students, the LMD system has been introduced in the Algerian University. Nevertheless, the type of instruction administered to EFL students does not reflect the real objectives of such an international system. Therefore, the current type of instruction does not seem to represent a real reform of the preceding one as it is still done in a traditional way, nor does it correlate with pre-university levels of EFL education. Overall, writing and learning strategies are (still) not given due importance.

At the University, writing is the principal means by which learning and testing are done. Writing and learning are inseparable; furthermore, learning to write effectively can be considered as one of the most prominent keys to success at university level and beyond (Creme and Lea, 2003; Northedge, 2005). However, and despite a wide exposure to the target language, EFL students end up their study years with weak learning and writing proficiencies. This is so, it is believed, because of a total absence of a learning and writing strategies instruction. This study attempts, therefore, to explore the interrelationship between writing, thinking, and

learning, and to suggest an academic framework that would promote, within the LMD context, students' metacognitive awareness through a learning and writing strategy-based instruction. This work relies on related literature and on researches and experiments conducted in this field at a worldwide level, but also relies on personal critical thinking, field-research observations, and triangulation procedures.

Writing is an essential skill in the acquisition of EFL; it is a compulsory module for university students preparing a 'Licence' in English. However, writing is seen by most students (and teachers) not as a learning (or teaching) tool but as a burden; in addition, writing has long been neglected by syllabus designers, and this has had a bad impact on students' writing performance; be it during their university studies or during their teaching career. Furthermore, a common problem EFL students face is learning and remembering the vast amounts of information they are required to read and process through the numerous and different modules they have. Likewise, writing at university level involves a number of complex activities such as being aware of tasks requirements, ways of monitoring and regulating the task performance, and ways of assessing the performed tasks. These activities all require from students metacognition, which is the ability to think about and control one's learning (Flavell, 1976, 1979). What university students need is a kind of instruction that develops their writing and learning strategies. Moreover, because of the interrelationship between writing and learning (Emig, 1977), success in developing writing strategies would lead to overall success in EFL learning. Thus, in order for EFL learning to be successful, writing instruction has to be reconsidered so that it meets learning needs, especially within the LMD context. The pedagogical instruction has to be reframed according to a new perspective which considers writing not only as learning and a testing skill, but as a functional skill and a key module whose renovation and improvement would lead to short and long term results. The main objective of this research is thus to suggest an innovative writing instructional framework which aims at developing metacognitive awareness in writing in order for students to achieve satisfactory mastery of writing in particular, and so improve their proficiency in the English language in general. In essence, this work aims at discussing the following research questions:

4- What instructional model would develop metacognitive awareness in writing and achieve satisfactory mastery of this skill, at University level?
5- Would the development of metacognitive awareness in writing lead to academic achievement in writing and in EFL learning?
6- How can e-learning enhance writing and learning strategies instruction?

These questions need careful consideration and a thoughtful plan as many variables and involved. In order to be able to answer these questions in an academic way, the following hypotheses have been formulated:

7- Developing students' metacognitive awareness in writing requires an instruction that combines Cognitive Academic Language Learning Approach and Computer Assisted Approach.
8- The development of metacognitive awareness in writing is likely to develop learning awareness and also lead to academic success in writing and in EFL learning.
9- The implementation of technology-enhanced instruction, namely by combining face-to-face and technology-based distance-learning, will encourage and facilitate students' performance in writing and thus would lead to better academic achievement.

Writing is a must at all levels, but most importantly at university level because of the type of instruction and evaluation. Furthermore the technological expansion has imposed on every learner the necessity to manipulate software and hardware. Globalisation requires from our learners to be competent writers since the processed word has gained importance over the written word, moving the world toward digital communication. Consequently, the academic framework suggested in this paper is inspired from different writers who strive to improve language learning and writing through different methods: The first type of writers stress the need to develop writing competence in learners because of the technological revolution that is made more evident at worldwide level through globalization, and thus writing is

granted a renewed concern because of a self-evident ‘digital communication’; these writers defend a computer-assisted writing approach (Sullivan and Pratt, 1999; Schwartz et al., 2007). The second type of writers are specialized in learning strategies as a whole, namely O’Malley and Chamot (1990, 1999) who advocate CALLA (Cognitive Academic Language Learning Approach), an approach which is task-based in essence and combines content, language and learning strategies, and which values the role of metacognition in language learning. This approach is also based on an explicit learning strategies instruction for an ultimate aim that is producing more active, proficient and autonomous learners. The suggested instructional framework consists principally in developing learners’ metacognitive awareness in writing in order for students to achieve satisfactory mastery of writing in particular, and so improve their proficiency in EFL. The primary aim is raising metacognitive awareness in writing, but the ultimate goal would be awareness and self-regulation in EFL learning in general.

The present doctoral work consists in an experimental study involving an experimental group (EXP) and a control (CTR) group, each one including 30 learners, among first year LMD students enrolled in the department of English (Blida University). The experimental study is conducted during the second semester of the academic year (2011-2012). The aim of the present experiment is to investigate the effectiveness of the suggested instructional model and its impact on the EXP group performance, in comparison with the CTR group which has not received the type of writing instruction. To this end, a triangulation process comprising different research tools has been used: semi-structured interviews at different phases of the experiment, a metacognition-raising questionnaire administred to both groups under study before and after the treatment, scores analysis of informants’ writing and EFL grades, a strategy-based writing instruction implemented only with EXP group, and a distance learning platform exploited also only by EXP group. The different investigative procedures will attempt to provide classroom-based empirical data in order to trace students’ evolution of their metacognitive awareness in writing, as well as to evaluate students’ development of writing and EFL proficiency according to three variables: awareness in writing,

awareness in learning, and academic success. The different steps of the study will basically investigate the connections between writing, thinking and learning, the nature of university writing instruction, the need for building metacognitive awareness in writing, and the possibility of instituting an e-writing / learning in the Algerian University. Therefore, this doctoral thesis is divided into six chapters which attempt to provide theoretical, contextual and practical angles of the problem.

Chapter One lays the theoretical foundation for the whole research work by shedding light on the main concepts of the study. This chapter tries then to explain the interrelationship between writing, thinking, learning, and technology, and also between writing strategies and learning strategies. Therefore writing is explained and explored as a thinking and a learning skill. In addition, writing and learning strategies are investigated. Furthermore, metacognition and metacognitive awareness in writing are considered in order to provide a basis for the subsequent chapters.

Chapter Two tries to provide a systemic description of the educational context in Algeria, with reference to the EFL writing skill in higher education, specifically within the LMD context. It strives to investigate the status of EFL teaching/learning at pre-University and at University levels, in terms of learners' background knowledge, current learning practices, and possible lacks/needs. For such a purpose, the Algerian English Framework together with the objectives and syllabuses for EFL at the different levels are portrayed. In addition, different variables related to the teaching of the writing skill are considered: the place English has in the Algerian society, students' background EFL education in the pre-university and university levels, the place metacognitive instruction and technology in the different levels of education, teachers' training and development, along with English and writing programmes and evaluation practices. This sociolinguistic, educational, and learner-profile inquiry would serve as a needs-analysis procedure that would benefit interpretation and debate of the coming research results.

Chapter Three describes the research methodology adopted for this research, with details on the research design and the investigative procedures that are carried out in order to implement the proposed framework. It also sheds light on the evaluation procedures chosen to check the extent of success of the instruction. Basically, this chapter includes a description of the informants of both groups under study (EXP and CTR), in addition to a description of the different research instrument, in addition to a description of the three main phases of the experiment: pre-, while- and post-instruction. The analysis of the results obtained via the different research instruments are treated by using qualitative, quantitative and statistical techniques.

Chapters Four provides an analysis of the results obtained through the different research instruments (the questionnaire, the interview, and the scores' analysis), during the pre- and while-instruction phases. Partial conclusions are drawn and then cross-compared with those of the fifth chapter results. In fact, learners' development of their metacognitive awareness through the application of different techniques is investigated in an exploratory fashion: examining the effect of the proposed instruction (as the independent variable) on students' awareness in writing, awareness in learning and in academic success (as dependent variables).

Chapter Five investigates the impact of the instructional framework on EXP informants and thus provides a possibility to confirm or not the afore-mentioned research hypotheses. The different research instruments: the interviews, the questionnaire, and the scores' analysis are under scrutiny and the obtained findings are used to make a close comparison between EXP and CTR groups for the sake of drawing research conclusions and suggest pedagogical implications.

Chapter Six attempts to suggest a modified and improved instructional framework to teaching writing at university level. It takes into consideration learners' needs and weaknesses emerging during the three phases of the experimental study. Therefore, the proposed instruction tries to cater for students' writing and learning needs, taking into consideration their affective and cultural variables.

The ultimate aim of the study is to find an instructional model of writing that would enhance students' metacognitive awareness in writing, and that would lead them to monitor their own learning and eventually achieve autonomy. By so doing, the students are aimed to succeed in writing, in EFL, and in lifelong learning. The guiding belief behind this research work is to attribute writing its due importance in EFL instruction, and above all to endow our learners with necessary writing and learning strategies that would prepare them for the digital world of tomorrow, where learning, thinking, autonomy, and technology are interwoven.

The different investigative instruments served to check the efficacy of the suggested instructional model and bring attestation of the research hypotheses and thus elucidation of the research questions. As regards the first hypothesis, it was partially confirmed, but the suggested instructional model needed to be supplemented by another approach in order to reach a more comprehensive and balanced pedagogic framework at University level. In fact, the resulting model (in Chapter six) represented an improvement of the first instructional framework, and the changes were introduced in response to students' needs and weaknesses, which related mainly to language-mastery and to writing in different subject-matters. This required incorporating Writing Across the Curriculum Approach (WAC); moreover, the big number of students in each group and the limited time devoted to writing gave more arguments for the need and importance of CAW. Consequently, the academic framework that resulted from the study combined different learning and writing approaches, improving the initial instructional framework by supplementing CALLA and CAW with WAC.

By applying WAC, writing is seen as language learning and composing, within a content-based instruction. Through the composing practice, learners consolidate knowledge acquired about grammar, vocabulary and syntax with writing organizational devices and techniques. Furthermore, authenticity and meaningfulness of the writing tasks are ensured through genre pedagogy and content-based instruction, since it avoided isolating language from content. In addition, generative templates are used to help students internalize varied genre models. Nevertheless, the suggested teaching framework requires careful planning

and implementation during the academic year, in a way to respect the gradation of the syllabus. Therefore, collaborative teaching is a must in order to attain a well-balanced EFL instruction.

In what concerns the second hypothesis, it was confirmed since the results suggested a positive effect of the used instructional model. The students in EXP group scored relatively better than those in CTR group, and so they had improved their English proficiency in general and their scores in the writing subject-matter in particular. In addition, students were noticed to progress over time, mainly through tasks such as self- and peer-editing, conferencing and the strategy-based instruction, paired with the teaching platform. Metacognitive awareness appeared slowly, and it occurred in different degrees and different forms among students; thus, personal variation also played a role and thus should be taken into consideration. However, some results could be proved statistically but not inferentially and so could not be generalized to the whole first year LMD population.

For the last hypothesis, the learning platform offered students an opportunity for individualized learning as every student could learn at his/her own pace. It also promoted learner autonomy in that they could take in charge their own weaknesses, find appropriate solutions from different sources and learn collaboratively. All these learning concepts are in correlation with CALLA principles. Moreover, e-learning opened the possibility for interaction between teacher and students and between students themselves. This reinforced the idea of mediation between the teacher, the ICTs and students in a socio-constructivist dimension, where the teacher gave gradual support to the students in the use of ICTs, before training them in autonomy. To sum up, writing and EFL instruction should be supported by a theorized practice that is reinforced by the use of ICTs, which would facilitate an authentic development of social and cognitive processes. However, the presence of ICTs depends on the context, and so their use or intake can be limited to the availability of equipment, the proficiency of teachers and to the involvement of students.

In other words, this doctoral thesis has provided a blended instructional model for teaching writing at university level by combining three different though interrelated approaches: CALLA and more precisely metacognitive awareness raising and strategy-based writing instruction, paired with authentic and meaningful teaching and integration of the different language skills and content subject-matters for more balanced EFL instruction, through WAC, and enriched with the integration of technology into the writing instruction, through CAW. This instructional framework proved to be successful and highly recommended if we aim at developing students' metacognitive awareness that would lead them to self-regulation and ultimately to autonomy.

It should be noted, however, that this study has encountered many difficulties and limitations such as large classes where it was difficult to give regular feedback, students' reluctance to use technology, and material constraints due to lack of necessary equipment, mainly computer laboratories with Internet connection. The most serious limitation is by no means the crash of the server and the loss of the teaching platform with its related writing lessons. We may also deduce that the time devoted for the treatment was not enough to arrive at conclusive results in what concerns the effect of the metacognitive instruction on academic achievement. Therefore, the experimental study requires to be extended to additional semesters in order to observe a substantial effect. In addition, different factors may be accounted for interfering while applying a suggested instruction, such as the instruction informants in both groups had in other modules (and so with other teachers), mainly in grammar, and in reading modules as they are the subject-matters most related to writing. In addition, even instruction in other subject-matters has a role to play: teachers of the different modules may or may not incorporate writing in their teaching practices. Furthermore, the type of instruction the learners have had in pre-university levels certainly has an impact on their present way of writing and learning. All these variables could not be controlled when carrying out the research.

Nevertheless, this doctoral thesis is hoped to give way to further research in the field of writing by

- exploring and adjusting teachers' and learners' beliefs about writing,
- designing a comprehensive programme for the teaching of writing in a way that promotes students' self-awareness and self-regulation,
- designing a computer software that assists the metacognitive regulation of students while learning writing and containing templates for different rhetorical modes,
- institutionalising Technology-based Instruction at tertiary level, and
- promoting metacognitive-awareness raising instruction at university level for all subject-matters in the EFL syllabus.

To conclude, writing is not a mere skill; it is an act for making meaning and advancing thinking. Writing has a functional role to play in the course of studies; it is a learning tool and thus has to be promoted as such. The goal of this study is to produce innovation and change in the university writing curriculum in terms of instruction and evaluation. The suggested instructional framework is compelling and advisable in order to guide students in developing their metacognitive awareness in order to achieve critical thinking and learning skills, self-reflection and self-regulation, and ultimately autonomy.

Consequently, there emerges a necessity to reinforce learner-centred education and reconsider syllabus design, along with redesigning the suggested academic structure for teaching writing at tertiary level, on the basis of learners' writing and learning needs in order to ensure better learning outcomes. Furthermore, it seems important to note that in order for literacy to function effectively at university level, learning objectives, teaching methodology and classroom practices have to be rooted from and directed towards our Algerian context. This would enable a thoughtful and successful implementation of LMD system, in a way to be in pace with a globally-imposed education. Therefore, the objective of this work is to contribute with a pedagogical framework which aims at producing self-regulated and autonomous EFL students with satisfactory learning and writing strategies in a digital era. Students are meant to improve in writing, in EFL learning, and in technology-dominated lifelong learning.

GENERAL INTRODUCTION

For many decades after independence, the Algerian University has strived to achieve its fundamental objectives for national development and cope with worldwide changes. And because of gobalisation requirements, the successful teaching and learning of EFL has become one of its objectives. Nevertheless, our university graduates end up their education with low an achievement that does not reflect the wide exposure to the target language learning, the energy of teachers, or the administrative facilities devoted to the service of a successful instruction. These learners strive to have their 'Licence' degree with the hope of becoming proficient learners, future competent teachers, or efficient workers; in a word, efficient citizens. The truth is unfortunately deceiving since these graduates display a low proficiency level and poor strategies mastery, mainly in basic language skills, among them writing.

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At the University, writing is the principal means by which learning and testing are done. Writing and learning are inseparable; furthermore, learning to write effectively can be considered as one of the most prominent keys to success at university level and beyond (Creme and Lea, 2003; Northedge, 2005). However, and despite a wide exposure to the target language, EFL students end up their study years with weak learning and writing proficiencies. This is so, it is believed, because of a total absence of a learning and writing strategies instruction. This study

attempts, therefore, to explore the interrelationship between writing, thinking, and learning, and to suggest an academic framework that would promote, within the LMD context, students' metacognitive awareness through a learning and writing strategy-based instruction. This work relies on related literature and on researches and experiments conducted in this field at a worldwide level, but also relies on personal critical thinking, field-research observations, and triangulation procedures.

Writing is an essential skill in the acquisition of EFL; it is a compulsory subject-matter for university students preparing a 'Licence' in English. However, writing is seen by most students (and teachers) not as a learning (or teaching) tool but as a burden; in addition, writing has long been neglected by syllabus designers, and this has had a bad impact on students' writing performance; be it during their university studies or during their teaching career. Furthermore, a common problem EFL students face is learning and remembering the vast amounts of information they are required to read and process through the numerous and different subject-matters they have. Likewise, writing at university level involves a number of complex activities such as being aware of tasks requirements, ways of monitoring and regulating the task performance, and ways of assessing the performed tasks. These activities all require from students metacognition, which is the ability to think about and control one's learning (Flavell, 1976, 1979). What university students need is a kind of instruction that develops their writing and learning strategies. Moreover, because of the interrelationship between writing and learning (Emig, 1977), success in developing writing strategies would lead to overall success in EFL learning. Thus, in order for EFL learning to be successful, writing instruction has to be reconsidered so that it meets learning needs, especially within the LMD context. The pedagogical instruction has to be reframed according to a new perspective which considers writing not only as learning and a testing skill, but as a functional skill and a key subject-matter whose renovation and improvement would lead to short and long term results. The main objective of this research is thus to suggest an innovative writing instructional framework which aims at developing metacognitive awareness in writing in order for students to achieve satisfactory mastery of writing

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improve language learning and writing through different methods: The first type of writers stress the need to develop writing competence in learners because of the technological revolution that is made more evident at worldwide level through globalization, and thus writing is granted a renewed concern because of a self-evident 'digital communication'; these writers defend a computer-assisted writing approach (Sullivan and Pratt, 1999; Schwartz *et al*., 2007). The second type of writers are specialized in learning strategies as a whole, namely O'Malley and Chamot (1990, 1999) who advocate CALLA (Cognitive Academic Language Learning Approach), an approach which is task-based in essence and combines content, language and learning strategies, and which values the role of metacognition in language learning. This approach is also based on an explicit learning strategies instruction for an ultimate aim that is producing more active, proficient and autonomous learners. The suggested instructional framework consists principally in developing learners' metacognitive awareness in writing in order for students to achieve satisfactory mastery of writing in particular, and so improve their proficiency in EFL. The primary aim is raising metacognitive awareness in writing, but the ultimate goal would be awareness and self-regulation in EFL learning in general.

The present doctoral work consists in an experimental study involving an experimental group (EXP) and a control (CTR) group, each one including 30 learners, among first year LMD students enrolled in the department of English (Blida University). The experimental study is conducted during the second semester of the academic year (2011-2012). The aim of the present experiment is to investigate the effectiveness of the suggested instructional model and its impact on the EXP group performance, in comparison with the CTR group which has not received the type of writing instruction. To this end, a triangulation process comprising different research tools has been used: semi-structured interviews at different phases of the experiment, a metacognition-raising questionnaire administred to both groups under study before and after the treatment, scores analysis of informants' writing and EFL grades, a strategy-based writing instruction implemented only with EXP group, and a distance learning platform exploited also

only by EXP group. The different investigative procedures will attempt to provide classroom-based empirical data in order to trace students' evolution of their metacognitive awareness in writing, as well as to evaluate students' development of writing and EFL proficiency according to three variables: awareness in writing, awareness in learning, and academic success. The different steps of the study will basically investigate the connections between writing, thinking and learning, the nature of university writing instruction, the need for building metacognitive awareness in writing, and the possibility of instituting an e-writing / learning in the Algerian University. Therefore, this doctoral thesis is divided into six chapters which attempt to provide theoretical, contextual and practical angles of the problem.

Chapter One lays the theoretical foundation for the whole research work by shedding light on the main concepts of the study. This chapter tries then to explain the interrelationship between writing, thinking, learning, and technology, and also between writing strategies and learning strategies. Therefore writing is explained and explored as a thinking and a learning skill. In addition, writing pedagogy is examined in terms of teaching and testing principles, including technology-enhanced writing instruction. Furthermore, writing and learning strategies are investigated. Moreover, metacognition and metacognitive awareness in writing are considered in order to provide a basis for the subsequent chapters.

Chapter Two tries to provide a systemic description of the educational context in Algeria, with reference to the EFL writing skill in higher education, specifically within the LMD context. It strives to investigate the status of EFL teaching/learning at pre-University and at University levels, in terms of learners' background knowledge, current learning practices, and possible lacks/needs. For such a purpose, the Algerian English Framework together with the objectives and syllabuses for EFL at the different levels are portrayed. In addition, different variables related to the teaching of the writing skill are considered: the place English has in the Algerian society, students' background EFL education in the pre-university and university levels, the place metacognitive instruction and technology in the different levels of education, teachers' training and development, along with

English and writing programmes and evaluation practices. This sociolinguistic, educational, and learner-profile inquiry would serve as a needs-analysis procedure that would benefit interpretation and debate of the coming research results.

Chapter Three describes the research methodology adopted for this research, with details on the research design and the investigative procedures that are carried out in order to implement the proposed framework. It also sheds light on the evaluation procedures chosen to check the extent of success of the instruction. Basically, this chapter includes a description of the informants of both groups under study (EXP and CTR), in addition to a description of the different research tools, and to a description of the three main phases of the experiment: pre-, while- and post-instruction. The analysis of the results obtained via the different research instruments are treated by using qualitative, quantitative and statistical techniques.

Chapters Four provides an analysis of the results obtained through the different research instruments (the questionnaire, the interview, and the scores analysis), during the pre- and while-instruction phases. Partial conclusions are drawn and then cross-compared with those of the fifth chapter results. In fact, learners' development of their metacognitive awareness through the application of different techniques is investigated in an exploratory fashion by examining the effect of the proposed instruction (as the independent variable) on students' awareness in writing, awareness in learning and in academic success (as dependent variables).

Chapter Five investigates the impact of the instructional framework on EXP informants and thus provides a possibility to confirm or not the afore-mentioned research hypotheses. The different research tools: the interviews, the questionnaire, and the scores analysis are under scrutiny and the obtained findings are used to make a close comparison between EXP and CTR groups for the sake of drawing research conclusions and suggest pedagogical implications.

Chapter Six attempts to suggest a modified and improved instructional framework to teaching writing at university level. It takes into consideration learners' needs and weaknesses emerging during the three phases of the experimental study. Therefore, the (new) proposed framework tries to cater for students' writing and learning needs, by appealing to a blended instruction with different yet complementary approaches that would help achieve the desired educational goals.

The ultimate aim of the study is to find an instructional model of EFL writing that would enhance students' metacognitive awareness in writing, and that would lead them to monitor their own learning and eventually achieve autonomy. By so doing, the students are aimed to succeed in writing, in EFL, and in lifelong learning. The guiding belief behind this research work is to attribute writing its due importance in EFL instruction, and above all to endow our learners with necessary writing and learning strategies that would prepare them for the digital world of tomorrow, where learning, thinking, autonomy, and technology are interwoven.

GENERAL CONCLUSION

At the University level, writing is an essential skill for academic success. However, and despite a long exposure to the target language, Algerian EFL students end up their academic education and training with weak learning and writing proficiencies. This has expressed an urgent need to reconsider writing instruction at tertiary level. Current research in the field has renewed interest in writing as a functional skill which promotes language learning. Researchers have also highlighted the interrelationship between writing, thinking and learning, and so the importance of teaching writing and learning strategies alike. Moreover, the use of technology as a support to writing instruction is gaining more recognition for it enhances students' writing skills, promotes interaction, and enables more student-centered learning. This doctoral study has attempted, therefore, to suggest an academic framework for writing instruction that would improve learning and writing by developing learners' metacognitive awareness in writing to achieve an acceptable writing and EFL proficiency. This is done through a blended learning approach that combines different teaching and learning approaches, and which acknowledges the necessity for students to be competent writers and learners, for a digital communication. In essence the different research steps have tried to answer the following research questions:

7- What instructional model would develop metacognitive awareness in writing and achieve satisfactory mastery of this skill, at University level?
8- Would the development of metacognitive awareness in writing lead to academic achievement in writing and in EFL learning?
9- How can e-learning enhance writing and learning strategies instruction?

The different investigative procedures involved in the research methodology tried to provide evidence for the following research hypotheses:

13- Developing students' metacognitive awareness in writing requires an instruction that combines Cognitive Academic Language Learning Approach and Computer Assisted Approach.

14- The development of metacognitive awareness is likely to develop learning awareness and also lead to academic success in writing and in EFL learning.

15- The implementation of technology-enhanced instruction, namely by combining face-to-face and technology-based distance-learning will encourage and facilitate students' performance in writing and thus would lead to better academic achievement.

This experimental study involved two 1LMD groups: an experimental group (EXP) and a control group (CTR) in the department of English in Blida University. It strived to provide classroom-based empirical data that would consider the effect of the metacognitive instruction (as an independent variable) on informants' awareness in writing, awareness in learning, and academic success (as dependent variables). Basically, different research instruments were used at three distinct phases during the implementation of the instructional model to respond to research inquiries: a metacognitive questionnaire, semi-structured interviews, scores analysis of writing and semestrial averages, in addition to a metacognitive-awareness raising instruction, inspired from CALLA teaching steps and comprising self- and peer- editing/scoring sheets, teacher conferencing, in conjunction with the use of a computer-based teaching platform which consisted in teaching writing lessons via distant learning and more precisely CAW. In order to arrive at academic conclusions, this doctoral thesis was divided into six chapters, each of which enlightened one facet of the research topic.

The literature review guided us to discover the multifaceted nature of the writing skill which covers learning, thinking and problem-solving. In addition, researchers and scholars recognize the close ties between metacognitive awareness in writing and success in EFL writing and learning. Equally important is the recognition of the place of technology in language learning in general and in writing in particular. The second chapter, describing the Algerian English Framework in the pre-university and university levels, enabled us to discover the disparity between the different levels of EFL instruction and to unveil the weak place that metacognition and technology maintained in EFL instruction. Besides, the LMD system was analysed in terms of principles and objectives. There emerged, then, a need to design a university writing instruction that would take into consideration the complexity of the writing skill, students' needs and learning objectives. To this end, the research design and methodology were substantially drawn in Chapter Three. Chapter Four described the results of analysis of the triangulation process in the pre- and while instruction phases. The results revealed learners' weaknesses at linguistic, cognitive and strategic levels. With Chapter Five, which focused on the post-instruction phase, more positive results came out; this led us to conclude that the suggested instructional framework succeeded in developing students' metacognitive awareness in writing and helped EXP group to outperform CTR group in writing and EFL scores. Chapter six thus attempted to improve the initial framework in a way to solve the raised students' writing and learning problems by incorporating CALLA principles, Writing Across the Curriculum approach and Computer Assisted Writing.

The different investigative instruments served to check the efficacy of the suggested instructional model and bring attestation of the research hypotheses and thus elucidation of the research questions. As regards the first hypothesis, it was partially confirmed, but the suggested instructional model needed to be supplemented by another approach in order to reach a more comprehensive and balanced pedagogic framework at University level. In fact, the resulting model (in Chapter six) represented an improvement of the first instructional framework, and the changes were introduced in response to students' needs and weaknesses, which

related mainly to language-mastery and to writing in different subject-matters. This required incorporating Writing Across the Curriculum Approach (WAC); moreover, the big number of students in each group and the limited time devoted to writing gave more arguments for the need and importance of CAW. Consequently, the academic framework that resulted from the study combined different learning and writing approaches, improving the initial instructional framework by supplementing CALLA and CAW with WAC.

By applying WAC, writing is seen as language learning and composing, within a content-based instruction. Through the composing practice, learners consolidate knowledge acquired about grammar, vocabulary and syntax with writing organizational devices and techniques. Furthermore, authenticity and meaningfulness of the writing tasks are ensured through genre pedagogy and content-based instruction, since it avoided isolating language from content. In addition, generative templates are used so that students can internalize varied genre models. Nevertheless, the suggested teaching framework requires careful planning and implementation during the academic year, in a way to respect the gradation of the syllabus. Therefore, collaborative teaching is a must in order to attain a well-balanced EFL instruction.

In what concerns the second hypothesis, it was confirmed since the results suggested a positive effect of the used instructional model. The students in EXP group scored relatively better than those in CTR group, and so they had improved their English proficiency in general and their scores in the writing subject-matter in particular. In addition, students were noticed to progress over time, mainly through tasks such as self- and peer-editing, conferencing and the strategy-based instruction, paired with the teaching platform. Metacognitive awareness appeared slowly, and it occurred in different degrees and different forms among students; thus, personal variation also played a role and thus should be taken into consideration. However, some results could be proved statistically but not inferentially and so could not be generalized to the whole first year LMD population.

For the last hypothesis, the learning platform offered students an opportunity for individualized learning as every student could learn at his/her own pace. It also promoted learner autonomy in that they could take in charge their own weaknesses, find appropriate solutions from different sources and learn collaboratively. All these learning concepts are in correlation with CALLA principles. Moreover, e-learning opened the possibility for interaction between teacher and students and between students themselves. This reinforced the idea of mediation between the teacher, the ICTs and students in a socio-constructivist dimension, where the teacher gave gradual support to the students in the use of ICTs, before training them in autonomy. To sum up, writing and EFL instruction should be supported by a theorized practice that is reinforced by the use of ICTs, which would facilitate an authentic development of social and cognitive processes. However, the presence of ICTs depends on the context, and so their use or intake can be limited to the availability of equipment, the proficiency of teachers and to the involvement of students.

In other words, this doctoral thesis has provided a blended instructional model for teaching writing at university level by combining three different though interrelated approaches: CALLA and more precisely metacognitive awareness raising and strategy-based writing instruction, paired with authentic and meaningful teaching and integration of the different language skills and content subject-matters for more balanced EFL instruction, through WAC, and enriched with the integration of technology into the writing instruction, through CAW. This instructional framework proved to be successful and highly recommended if we aim at developing students' metacognitive awareness that would lead them to self-regulation and ultimately to autonomy.

It should be noted, however, that this study has encountered many difficulties and limitations such as large classes where it was difficult to give regular feedback, students' reluctance to use technology, and material constraints due to lack of necessary equipment, mainly computer laboratories with Internet connection. The most serious limitation is by no means the crash of the server and the loss of the teaching platform with its related writing lessons. We may also deduce that the time devoted for the treatment was not enough to arrive at conclusive results in what concerns the effect of the metacognitive instruction on academic achievement. Therefore, the experimental study requires to be extended to additional semesters so that we can observe a substantial effect. In addition, different factors may be accounted for interfering while applying a suggested instruction, such as the instruction informants in both groups had in other modules (and so with other teachers), mainly in grammar, and in reading modules as they are the subject-matters most related to writing. In addition, even instruction in other subject-matters has a role to play: teachers of the different modules may or may not incorporate writing in their teaching practices. Furthermore, the type of instruction the learners have had in pre-university levels certainly has an impact on their present way of writing and learning. All these variables could not be controlled when carrying out the research.

Nevertheless, this doctoral thesis is hoped to give way to further research in the field of writing by

- exploring and adjusting teachers' and learners' beliefs about writing,
- designing a comprehensive programme for the teaching of writing in a way that promotes students' self-awareness and self-regulation,
- designing a computer software that assists the metacognitive regulation of students while learning writing and containing templates for different rhetorical modes,
- institutionalising Technology-based Instruction at tertiary level, and
- promoting metacognitive-awareness raising instruction at university level for all subject-matters in the EFL syllabus.

To conclude, writing is not a mere skill; it is an act for making meaning and advancing thinking. Writing has a functional role to play in the course of studies; it is a learning tool and thus has to be promoted as such. The goal of this study is to produce innovation and change in the university writing curriculum in terms of instruction and evaluation. The suggested instructional framework is compelling and advisable in order to guide students in developing their metacognitive awareness in order to achieve critical thinking and learning skills, self-reflection and self-regulation, and ultimately autonomy.

Consequently, there emerges a necessity to reinforce learner-centred education and reconsider syllabus design, along with redesigning the suggested academic structure for teaching writing at tertiary level, on the basis of learners' writing and learning needs in order to ensure better learning outcomes. Furthermore, it seems important to note that in order for literacy to function effectively at university level, learning objectives, teaching methodology and classroom practices have to be rooted from and directed towards our Algerian context. This would enable a thoughtful and successful implementation of LMD system, in a way to be in pace with a globally-imposed education. Therefore, the objective of this work is to contribute with a pedagogical framework which aims at producing self-regulated and autonomous EFL students with satisfactory learning and writing strategies in a digital era. Students are meant to improve in writing, in EFL learning, and in technology-dominated lifelong learning.

مجلة الآداب والعلوم الاجتماعية

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Integrating Subject-matters for a Well-Balanced EFL Instruction at University Level

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ABSTRACT

There is an undeniable agreement among researchers and methodologists that competence in a foreign language essentially means competence in both form and content; that is, linguistic competence and cultural competence. However, at university level, and specifically in the English department in Blida University, 'form' and 'content' subject-matters are taught separately; as a result, the students do not perceive any logical link between them. These

learners end up their formal instruction with unsatisfactory achievement at all levels. This paper tries, then, to suggest an integration of the subject-matters within a content-based approach to EFL (English as a foreign language) teaching/learning to cater for learners' needs. For such an aim, the writing skill, as a subject-matter, is taken as an example through which the language 'form' could be taught and further advanced when combined with language 'content' subject-matters _ namely, literature and civilization_ , within 'content-cased instruction', 'writing across the curriculum' and 'genre pedagogy' approaches. Therefore, this paper is an attempt to propose an instructional framework based on the integration of the language skills and culture subject-matters for a well-balanced EFL university formation.

Key words: writing, learner needs, content-based instruction, integration of the subject-matters

RESUME

Il y'a un accord incontestable entre les chercheurs et méthodologues que la compétence dans une langue étrangère est essentiellement la compétence linguistique (la forme) et la compétence culturelle (le contenu). Cependant, au niveau universitaire, les matières concernant l'apprentissage de la forme de la langue et celles concernant le contenu sont enseignées séparément; par conséquent, les étudiants ne perçoivent aucun lien logique entre les différentes matières. Ces apprenants finissent leur formation avec un échec dans les deux genres de matières. Cet article tente donc de proposer une intégration des matières dans une approche basée sur le contenu pour répondre aux besoins des apprenants. Pour un tel objectif, l'expression écrite est considérée comme un exemple des matières à travers lequel l'intégration pourrait être effectuée. Le présent article est une tentative de suggérer un cadre pédagogique fondé sur l'intégration des matières dans le but d'atteindre une formation universitaire de l'anglais plus équilibrée.

Mots clés: l'expression écriture, les besoins des apprenants, l'enseignement basé sur le contenu, l'intégration des matières

1. INTRODUCTION

As a result of the globalization process, foreign language teaching, particularly EFL, is gaining more and more importance in Algeria, notably in higher education. Accordingly, policy makers and researchers strive hard to improve EFL teaching/learning to meet the nationwide and worldwide challenges, and produce competent EFL learners with an intercultural perspective. There is an undeniable agreement among these researchers and methodologists that competence in a foreign language essentially means competence in both form and content; that is, linguistic competence and cultural competence. Culture is indisputably an integral part of foreign language learning. Therefore, the EFL syllabus comprises language system subject-matters such as those concerning the teaching of the four skills, in addition to content subject-matters concerning the teaching of culture through – principally, civilization and literature. Despite this agreement over 'what –to-teach', there

seems to be no agreement over 'how-to-teach'. The fact is that, at university level, the subjects are taught separately like disconnected 'islands'. This disconnection has negative effects on students' achievement in both language aspects; furthermore, it prevents them from gaining an intercultural perspective through EFL learning.

This paper attempts to suggest an integration of the subject-matters within a content-based approach to EFL teaching/learning. For such an aim, and because of its big importance for students during and after university formation, writing is chosen as an example of the skills through which a content-based instruction could be implemented and further improved within 'writing across the curriculum' and 'genre' approaches. Thus, in order to cater for learner needs and achieve the desired educational objectives, this paper attempts to provide room for the following issues:

1- Unveil the difficulties and weaknesses perceived in EFL teaching and learning caused by wrong practices
2- Consider the Algerian EFL learners' needs
3- Suggest an instructional framework to teach writing drawing from other subject-matters, such as literature and civilization
4- Explain the benefits such an instruction would have for both teachers and learners
5- Foresee challenges and thus identify conditions for its success

This article is based on personal experience and related specialized literature. The main belief guiding this work is that foreign language learning is comprised of several components, including grammatical competence, communicative competence, as well as cultural competence.

2. EFL in the English department, Blida University

The aim of this part is to unveil the difficulties and weaknesses perceived in EFL teaching and learning caused by wrong practices, and the impact of such weaknesses on learners' achievement.

2.1. Administrative and Pedagogical Considerations

English is a second foreign language in Algeria (the first one being French). English is granted considerable importance due to its increasing importance for carrying out advanced studies, for job career prospects and for national economic development. Therefore, the English department strives to produce competent teachers, workers and citizens.

The students in the department of English are baccalaureate holders who have had a 7 years experience in studying EFL before enrolling in the department. The studies at the university are divided into three levels –according to LMD (Licence – Master - Doctorat) laws. The first level is to be completed in three years, at the end of which the students get a Licence degree (equivalent to a BA degree). The second level is to be completed in two years, and the successful students get a Master degree. The last level is the doctorate level which has to be completed in three years. The curriculum in the department of English consists of four main sections called teaching units. The first section includes fundamental subject-matters; these

concern mainly the four language skills, grammar, literature and civilization. The second section concerns the methodology subject-area which attempts to foster learners' study and research strategies. The third is the 'discovery' unit where the students enrich their knowledge of the language by expanding its use to different areas. In the fourth teaching unit, called 'transversal', the students are encouraged to learn other languages such as Arabic, French, Spanish or Italian. They are also given the opportunity to improve their knowledge in other subject-areas, such as computing, in a way to permit them to transfer their acquired credits to other fields of study in the same university or in other universities (in accordance with the ECTS - European Credits Transfer System-). As far as evaluation is concerned, there are two forms which are adopted in each semester: ongoing assessment, in which students' work is evaluated on a regular basis (formative assessment), and end-of-semester exams (summative assessment).

Writing is considered as an important skill since all exams and most of research works and homework assignments are done in the written mode. The writing skill is also a subject-matter on its own; it is also evaluated according to the previously-stated principles. However, despite a rich curriculum, the level of students enrolled in the department of English is unsatisfactory in all subject-matters, specifically in what concerns their writing competence; a fact that calls for close consideration in order to find appropriate remedies.

2.2. Observations:

While considering EFL teaching/learning at university level, one could make several observations: First, the four skills, mainly speaking and writing, are taught in isolation from content subject-matters. The second remark is that though authentic material may be included in the receptive skills (listening and reading), it is not included in the productive ones (speaking and writing). A third finding is that there is no collaboration between teachers of the different subject-matters. Moreover, in terms of official guidelines, no substantial change has been brought in the 'what to teach' issue, and no new perspectives on 'how to teach' question, despite the LMD reform (introduced in 2007 in Blida English department). LMD curricula faithfully follow the previous ones; as Miliani posits, '*several teachers simply changed the modules' labels of the old subjects, away from the innovative procedure introduced.*' (Miliani, 2005, p.28). Furthermore, there are no institutionalized practices, either for teacher training and development, or for curriculum design or improvement. The result is that most teachers lack professionalism and do not use suitable teaching materials. Learners, for their part, get little feedback from teachers because of the reduced number of hours for each course and because of the large class size.

The impact of the above flaws is felt as impinging on both teachers and learners. To begin with, language skills teachers and cultural content teachers follow different teaching and evaluation norms, as there is no collaborative work. The fact is that they seldom meet to discuss teaching concerns. Students, as a result, perceive no link between 'form' and 'content' subject-matters; furthermore, during exams, they are unable to focus on form and

content at the same time. The obvious consequence is that these students display low achievement in both kinds of subject-matters; which most teachers discover during evaluation practices - in exams, final projects, and homework or class assignments. Therefore, there must be a new form of EFL instruction that integrates both kinds of subject-areas. The guiding principles would be to consider learners' needs (Narcy-Combes, 2005), and then devise teaching and evaluation methodologies accordingly.

3. Needs analysis

As a first and compulsory step, we have to know what students' needs are in order to determine learning objectives, and choose appropriate methods of instruction. It is noteworthy that in the present article writing is chosen as an example of language skills (form) subject-matters through which integration of cultural competence (content) subject-matters can be achieved. For that reason, most of the needs analysis carried out will essentially concern the college level writing skill.

Consulting the literature on writing (Reid, 2001 and Smoke, 2001), on EFL learning/teaching (Hartley, 1998 & Nunan, 1988), and on needs analysis (Hamzaoui, 2006; Morell Moll, 1999; & Stroller, 1997), one can form the following assumptions:

- EAP (English for Academic Purposes) students must be prepared to respond successfully to college and university writing assignments
- Students need to know how to write different types of texts, with fluency and accuracy, using the required discourse mode and addressing the intended audience. This is necessary to answer subject-area questions. It is not enough to acquire knowledge without having the linguistic means to transmit it in the written mode.
- In EAP instruction, students have to be exposed to the functions and forms of the writing requirements and assignments they are almost certain to encounter in their future courses.
- The ability to evaluate students' current needs and analyse target texts is therefore a key feature of a teacher's role and of the training which leads to becoming a writing teacher.
- The writing course should be designed to integrate student needs with the hierarchy of institutional values, disciplinary and professional expectations.
- Course design should always begin with what the students know, what they are able to do, and what they are interested in learning to do.
- [Needs analysis] is the means of establishing the *how* and *what* of a course.

On the basis of the above assumptions, one can assume that learners' needs are

- to develop their linguistic and cultural competence (Kramsch, 1993 & 1998)
- to have opportunities to write on different topics, in different discourse modes
- to be able to write in meaningful and authentic contexts
- to become aware of the link between the different subject-matters

- to learn study skills and essay writing, using different models of discourse and creative writing
- to learn how to present research work in writing
- to become successful students, future competent teachers/workers, and strong researchers

3. Instructional framework

What follows is the description of the theoretical and practical backgrounds of a suggested instructional framework, based on personal experience and related literature. This framework has not yet been put into practice. It is hoped, however, it would attract attention of teachers and administrators to the possibility of providing improvement to the teaching and learning of EFL at the level of the Algerian University.

4. 1. *Description*

A renewed concern has appeared concerning the writing skill because of its importance in teaching and learning. Among the many theories that have emerged, three that have gained wide recognition are **content-based instruction** (henceforth CBI), **writing across the curriculum**, and **genre approach**

According to Brinton, Snow & Wesche (2003), Met (1999), and Sticht (1997)

- CBI aims at eliminating the artificial separation between language instruction and subject-matter classes
- the use of informational content increases motivation in the language course and thus promotes more effective learning
- language should be taught through a focus on contextualized use rather than on fragmented examples of correct sentence level usage
- CBI would help learners develop writing competence in the kind of texts and discourse they need during their formation and even beyond, as researchers and international communicators

Basically, CBI is valuable since it does not separate language and content. Moreover, as Grabe & Stroller (1997, pp. 19-20) further explain:

- In CBI, students are exposed to a considerable amount of language while learning content. This incidental language should be comprehensible, linked to their immediate prior learning and relevant to their needs.
- In CBI classrooms, teachers and students explore interesting content while students are engaged in appropriate language dependent activities. The resultant language learning activities, therefore, are not artificial or meaningless exercises.
- CBI supports contextualised learning; students are taught useful language that is embedded within relevant discourse contexts rather than as isolated language fragments. Thus, CBI allows for explicit language instruction, integrated with content instruction, in a relevant and purposeful context.

- CBI lends itself to student-centred classroom activities.

Similarly, Smoke (in Silva and Matsuda, 2001) claims the pedagogical benefits of content-based instruction as she linked writing with different subject-matters, exposing as such the advantages of '**writing across the curriculum'** approach:

- the joint assignments helped students to see connections between the courses and the writing and reading they did
- these assignments helped in the acquisition of English and understanding of course material and in vocabulary development
- students in these linked classes tended to do better in both courses than in the unlinked classes

Because of learners' low achievement in all competencies, educators should understand that writing instruction can no longer be confined to the writing class. If teachers in various culture-oriented subject-matters added writing to their courses, they would discover that writing assignments bring great benefits. Students would not only enhance their general writing ability, but also increase their understanding of content. Teachers, however, may be reluctant to assign writing tasks on a regular basis because of the unpleasant chore of correction in large classes, in which the number of students often exceeds 50! A possible solution for this is to adopt different types of correction so that to alleviate its difficulty. Among these types are self- correction, peer correction, and holistic grading (i.e., evaluating the overall quality of the written work) (Brookes and Grundy, 1990; Elbow, 1994; Hamp-Lyons and Heasley, 2006).

But it is necessary for these teachers to work in collaboration with writing teachers to see what kinds of essays students have been taught so that their assignments can function as practice for those types. Similarly, writing teachers have to be in touch with content-based subject-areas teachers in order to be informed of the type of writing –essays/paragraphs- their students need most, and so devise a writing curriculum accordingly. Teachers would apply some principles of genre approach in writing instruction. Hyland (2004, pp. 10-16) maintains that **genre pedagogy** is

- Explicit : it makes clear what is to be learnt to facilitate the acquisition of writing skills
- Systematic : it provides a coherent framework for focusing on both language and contexts
- Needs-based : it ensures that course objectives and content are derived from students' needs
- Supportive : it gives teachers a central role in scaffolding students' learning and creativity
- Empowering : it provides access to the patterns and possibilities of variation in valued texts
- Consciousness-raising : it increases teachers' awareness of texts to confidently advise students on writing

To sum up, by making explicit what is to be learnt, providing a coherent framework for studying language and contexts, teachers would ensure that course objectives are derived from and geared towards students' needs.

4.2. ***Pedagogical Implications***

In practical terms, some implications arise from the application of the above mentioned types of instruction:

- to advocate an integration of the subject-matters: no subject-matter would be taught in a vacuum or in isolation
- to raise students' awareness about the link between linguistic competence and cultural competence subject-areas
- teachers in charge of different subject-matters should meet regularly to adjust their teaching programmes accordingly
- integration of the subject-matters at university level presupposes teaching skills by using the corresponding programme of culture-oriented (content) subject-matters, such as those of civilization and literature. It also means teaching these subject-matters using different language skills.
- the writing teacher goes beyond general (and monotonous) topics (related to life in general): such as sports, health, family…, and draws content from literature and civilisation syllabi, as the examples in the following table may illustrate:

Traditional writing topics	Suggested writing topics

1- Write *a comparison-contrast essay* in which you compare studying in high school and studying at university level. 2- Write *a logical division* essay explaining the reasons of the increase of violence rate in society. 3- Write *an argumentative essay* on the liberty of the press.	1- Write *a comparison-contrast essay* in which you compare the political system in Great Britain with that of USA. 2- Write *a logical division* essay explaining the reasons of the economic decline that Britain witnessed by the end of the 1970s. 3- Write *an argumentative essay* on the concept of heroism in Hamlet.

Table 1. Traditional vs. suggested writing topics

That does not mean to completely eliminate 'life' topics, but rather to strike a balance between the different kinds of topics in a way to make learners understand more easily the structure of different rhetorical modes by dealing with topics they have already come across.

- ultimately, teachers can use needs analysis to make learners reflect on their own learning, and select appropriate strategies to learn from different subject-matters, and apply different skills in all subject-areas. They would be guided as such to be autonomous learners (Wenden, 1991).

4. 3. *Benefits*

Such an instruction is seen to have several benefits for both teachers and learners.

4.3.1. *Teachers*

After a careful analysis of learners' needs, and an adoption of a varied instruction to teaching the writing skill, EFL teachers are expected to

- build on students' previous knowledge, focusing on what they know well so that they become aware of what they do not know and what they need to know; this is scaffolding,

- spend less efforts on explaining the writing lesson because students already know the content; teachers would rather focus on explaining the technical side on how the content should be organized according to particular rhetorical mode guidelines,
- meet with teachers of different subject-matters to discuss their courses and writing requirements, and together they develop strategies for working with their students,
- develop joint writing assignments and joint responses to these assignments (Smoke, 2001, pp. 133-134), and
- have a better understanding of students' needs in relation to language content and language form, and so provide assistance for these students in these areas

4.3.2. *Learners*

The overall outcome foreseen in such an instruction is to have a better understanding of student needs in relation to linguistic competence and cultural competence subject-matters, and to provide assistance for these learners in these areas. The hope is that these students use these skills to achieve academic success, and to apply these skills in their professional careers. It has become indisputable that learning goes beyond graduation from university and that "school and university students should be taught the necessary skills to enable them to continue learning effectively throughout their lives" (Hartley, 1998, p. 149)

Therefore, with CBI, learners are expected to

- feel safe and familiar with topics they have already studied,
- devote time and energy to work on form only (rather than struggle to thing about suitable content too) and so overcome their language writing anxiety,
- reinforce their understanding of the material they study in culture-oriented subject-matters by the same token,
- be trained to write in these subject-matters more accurately (in homework, research papers, or exams),
- improve their ability to analyse materials in content-based subject-areas, as they become aware of the significance of their technical side, and
- grasp the fact that language is a whole, with its technical and cultural components, and not separate 'islands' of courses

4.4. Challenges

There could be potential difficulties to the application of this instruction. For example, there may be a lack of time and of appropriate materials to foster both technical side and cultural side of writing. However, the most important difficulty would be teacher resistance to change. As teachers are not often used to collaborative teaching, or to integrating writing regularly in their teaching practices, many of them could be reluctant to begin a new form of instruction. Teachers would be required to have knowledge that goes beyond narrowly defined specialization. There is, then, a necessity for a well-formed teacher who can deal with different types of topics relating to different subject-matters. What is needed is a

theoretical and practical framework for teaching writing (or other skills) across the curriculum and in a content-based framework; moreover, there is necessity for a new methodology for culture-oriented subject-matters in which the teacher varies between productive and receptive skills. Therefore, there are some conditions for the success of this type of instruction.

4.5. Requirements for its success

First, and foremost, there should be a continuous needs analysis on the part of all teachers. In addition, collaborative teaching has to be implemented so that teachers exchange information about what students need to learn. Also, teachers of different subject-matters should provide each other with continuous evaluation of learners' needs and weaknesses, for an ongoing improvement in all subject-areas. As a result, teacher training and development have to be changed accordingly.

As for learners, teachers should make them

- perceive short and long term objectives in foreign language learning,
- analyse, synthesise, and evaluate authentic materials,
- become more aware of research and relevance of skills in all subject-matters,
- become aware of their learning strategies,
- develop their learner autonomy by pushing them to read, write and speak in the language,
- communicate with other students in other universities on a variety of topics.

At an administrative level, learners need more time to foster writing competence because of the importance of writing in all phases of their formal instruction. Syllabus design has to be based on clear objectives of what these learners are to become in the future, and taking into consideration students' level and expectations. For all these reasons, the EFL syllabus has to be readjusted accordingly.

5. Conclusion

At university level, EFL students still display unsatisfactory achievement in all kinds of competencies; their failure seems to be due to the disconnection existing between the teaching of 'form' and 'content' subject-matters. This paper suggests, then, the integration of subject-matters for a better-balanced instruction, using the writing skill as model of 'form' subject-matters through which integration of subject-matters from other areas can be achieved. And as the aim of the writing course is to produce learners able to express themselves in the written mode for different purposes; an approach based on 'content-based instruction', 'writing across the curriculum', and 'genre pedagogy' represents an opportunity to provide learners with authentic contexts for writing. Nevertheless, in order for this instruction to work, there should be a continuous analysis to identify learners' needs, and so devise a corresponding teaching methodology. Furthermore, teachers have to work collaboratively in order to enrich the syllabus, facilitate teaching, develop learning, and help reach short and long-term objectives at learner, teacher, departmental and national levels. In

fact, the idea in the integration of subject-matters is to build 'bridges' between the subject-matters (islands): bridges of meaningfulness, authenticity and relatedness. This integration would as such develop learners' linguistic competence as well as cultural competence. Thus, there is a call for institutional practices that would coordinate teachers' efforts in order to arrive to an agreement over 'what to teach' and 'how to teach'.

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Et si on parlait tous de la même voix

Samira ARAR
Université Alger 2

DEVELOPING METACOGNITIVE AWARENESS IN WRITING : A BLENDED LEARNING INSTRUCTIONAL FRAMEWORK FOR ALGERIAN EFL LEARNERS

Case of First Year LMD Students

Abstract

The 21st century technological revolution in addition to globalisation have incited developing countries (such as Algeria) to adopt evolutionary educational programmes that value reflective and self-regulated learning together with the mastery of technological tools for an overall goal of achieving learner autonomy. At tertiary level, however, technology-based and cognitive learning/teaching are still in their embryonic state. This paper deals with writing, a highly cognitively demanding skill, and advocates the necessity of reconsidering EFL syllabus design at tertiary level by incorporating blended learning and writing. Thus, writing is valued not only as a learning skill but also as thinking and problem-solving skill which requires reflection during all the steps of the composing process. The study attempts, therefore, to explore the interrelationship between writing, learning and thinking in order to suggest a pedagogic framework that would lead to writing and learning achievement. This would be by

developing metacognitive awareness in the writing process, through a blended learning approach that combines different teaching and learning approaches in order for students to adhere to digital communication.

Key words: blended learning, metacognitive awareness, writing, CALLA, WAC, WAL, CAW

ملخص

لقد دفعت الثورة التكنولوجية في القرن *21*، بالإضافة إلى العولمة البلدان النامية *(مثل الجزائر)* على اعتماد البرامج التعليمية المتطورة بمهارات التفكير و التمعن في التعليم مع التمكن من الأدوات التكنولوجية من اجل تحقيق تعليم منظم و ذاتي عند المتعلم. رغم ذلك على مستوى التعليم العالي فإنّ التعليم و التعلم القائم على التكنولوجيا والتعلم المعرفي لا يزال في مراحله الأولى. يتناول هذا المقال التعبير الكتابي الذي يتطلب مهارة عالية إذ يحاول و يدعو إلى ضرورة إعادة النظر في تصميم مناهج اللغة الانجليزية في مرحلة التعليم العالي من خلال دمج التكنولوجيا مع التعبير الكتابي. يحاول هذا المقال إذن اكتشاف الترابط بين التعبير الكتابي والتعلّم والتفكير لاقتراح إطار تربوي من شأنه أن يعزز نجاح الطلبة في التعلم والكتابة على حد سواء. و هذا يكون من خلال تطوير الوعي المعرفي في عملية الكتابة من خلال نهج التعلم القائم على دمج طرق تعليمية مختلفة مما يسهل على الطلاب الانضمام إلى عالم الاتصال الرقمي.

1. INTRODUCTION

At the University level, writing is an essential skill for academic success. However, and despite a long exposure to the target language, Algerian EFL students end up their academic education and training with weak learning and writing proficiencies. This expresses an urgent need to reconsider writing instruction at tertiary level. Current research in the field has renewed interest in writing as a functional skill which promotes language learning. Researchers have also highlighted the interrelationship between writing, thinking and learning, and so the importance of teaching writing and learning strategies alike. Moreover, the use of technology as a support to writing instruction is gaining more recognition as it enhances students' writing skills, promotes interaction, and enables more student-centered learning. This study attempts, therefore, to suggest an academic framework for writing instruction that would improve learning and writing by developing learners' metacognitive awareness to achieve an acceptable writing and EFL proficiency. This is done through a blended learning approach since the technological expansion has imposed on every learner the necessity to manipulate software and hardware, requiring from them to be competent writers for a digital communication. To achieve these objectives the following research questions are put forward :

1- What instructional model would develop learners' metacognitive awareness in writing to achieve satisfactory mastery of this skill?

2- Would the proposed writing instructional framework lead to a better writing and EFL academic achievement?

3- How can e-learning enhance writing and learning strategies instruction?

2. THE STUDY

Before embarking in the experimental phase of this research, it is important to draw the theoretical framework for writing instruction that is believed to answer Algerian EFL students' needs at university level and to justify the choice of the approach to the proposed writing instruction.

2.1 Theoretical Considerations

The suggested instructional framework is inspired from different learning and writing approaches that highlight the link between writing, learning and thinking; in addition to a strategies learning instruction (CALLA), and computer-assisted writing (CAW). It is later modified and enriched in a way to respond to students' writing and learning needs.

2.1.1 Writing as Learning and Thinking

Writing is a productive skill in the written mode; it is essential for language reinforcement, for consolidating learning, and for testing (Rivers, 1968; Harmer 2001). Moreover, writing is a thinking process (Sinclair, 2010); it is also problem solving (Flower and Hayes, 1981); besides, Paivi, Mason, & Lonka, (2001) believe writing is rather requiring thinking and reflection *before*, *during,* and *after* the act of writing. As a result, writing is perceived not just as output, but also as input that serves to improve learning Elbow (1994).

2.1.2 Metacognitive Awareness

Flavell (1976) posits that metacognition has two major constituents: metacognitive knowledge and metacognitive regulation. Metacognitive Knowledge (also called metacognitive awareness) is what individuals know about themselves and others as cognitive processors. He classifies such knowledge into three integrative types: person knowledge, task knowledge, and strategy knowledge. On the other hand, Metacognitive Regulation or Monitoring is the

regulation of cognition through a set of activities that help people control their learning. It includes activities of planning, monitoring or regulating, and evaluating (Paris & Winograd, 1990; Schraw & Moshman, 1995). Since 1990s writing researchers began to promote the integration of metacognition into writing research and instruction in order to make students 'actively' instead of 'subconsciously' aware of their mental actions and able to regulate their cognition. The results from the studies in L1 and L2 writing (Devine, 1993; Kasper, 1997) indicate that there is a link between metacognitive knowledge and writing performance. In fact, kasper (1997) and Zhang (2010) maintain that a good command of metacognitive knowledge can empower EFL learners in their English writing and cultivate their learning autonomy in EFL; consequently, educators should include metacognitive knowledge instruction in teaching programs (Chamot & O'malley, 1994; Kasper, 1997). Xiao (2007), for his part, advocates scaffolded instruction and believes the teacher should provide students with guided practice until their metacognitive strategies move toward an automatic state.

also**ped·a·gog·i·cal**
adj.
1. Of, relating to, or characteristic of pedagogy.

2. Characterized by pedantic formality: a haughty, pedagogic manner.**2.1.3 Language Learning Strategies Instruction (CALLA)**

Chamot *et al* advocate an approach based on cognitive-social theory which integrates academic language development, content area instruction, and learning strategies instruction to facilitate the acquisition of both content and language; they refer to as cognitive academic language learning approach (CALLA) (O'Malley and Chamot, 1990; Chamot *et al*, 1999). CALLA involves higher levels of thinking and aims principally at helping students become more effective and independent learners. The CALLA instructional design is task-based, and is identified within the Metacognitive Model of Strategic learning (Chamot et al, 1999: 43). It comprises

five phases: preparation, presentation, practice, evaluation, and expansion, and guides learners to learn language content and build their metacognitive awareness in an autonomous fashion.

2.1.4 Computer Assisted Writing (CAW)

Computer-assisted instruction (CAI), through interactive computer programmes, is believed to allow students to progress at their own pace as they receive immediate feedback, and work individually or problem solve in a group (Lee, 2000). In addition, networked computer technology has become prevalent in higher education, and in writing classrooms (Sullivan and Pratt, 1999). Thus, CAW (computer-assisted writing), together with a web-based writing instruction, and the adherence to writing laboratories would help students lessen their anxiety, enhance their motivation as well as increase their written output both quantitatively and qualitatively, and be introduced to digital communication. Most importantly, Akturk and Sahin (2010); in addition to Mevarech, Zion, and Michalsky (2007) advocate positive correlations between educational Internet use and the building of metacognitive awareness. To conclude, computer-assisted writing instruction combines information processing, communication, use of authentic language, and learner autonomy.

2.2 Research Design

The study attempts to provide classroom-based empirical data in order to trace students' development of their metacognitive awareness in writing, by implementing a metacognitive

writing instruction, paired with a teaching platform based on the use of ICTs. A triangulation process is adopted to evaluate the efficacy of the proposed instructional framework, as well as to evaluate students' development of writing and EFL proficiency according to three variables : awareness in writing, awareness in learning, and academic success.

2.2.1 Subjects

The present research work is an experimental study involving an experimental group (EXP) and a control (CTR) group, each one including 30 learners, among first year students enrolled in the department of English. These students' English proficiency is estimated from low to high intermediate; they have Arabic as a mother tongue (L1), while English is a second foreign language (FL2), after French (FL1).

2.2.2 Instruments

a. The Questionnaire: It attempts to track over time students' development of their metacognitive awareness in writing and in learning. It is also used to depict learners' learning and writing difficulties. It is administered twice: before and after the instruction implementation. (Appendix A)

b. The Interviews: They are conducted with students to elicit self-reported data providing insights into what writers think they are doing or should be doing when writing. Interview 1 (structured) is conducted with both EXP and CTR samples, while Interview 2 (semi-structured) is conducted with EXP group only (Appendix B).

c. Scores' Analysis: It aims at assessing students' writing proficiency in relation to the implemented instructional framework. It consists in considering the semestrial scores obtained by the informants in the two groups both in writing (as a subject-matter) and in EFL in general (as semestrial arithmetic means). These scores are analysed and then cross-compared between the two groups and between the two academic semesters.

1.3 Description of the Results

The study comprises pre-, while- and post-instruction phases. The data gathered via the different research instruments are analyzed qualitatively, quantitatively, and statistically, using Likert-Type five-

point scale [1] and applying SPSS version 20.0 program[2]. The results of the study are aimed to expose how metacognitive awareness in writing promotes self-regulation in learning and thus leads to better achievement in writing and in EFL learning, and ultimately to learner autonomy.

Pre-Instruction Phase

The aim is to draw students' profile in both EXP and CTR groups prior to the implementation of the teaching instruction in terms of motivation, attitude, learning and writing awareness, and self evaluation. The informants appear to come to university with a narrow view of what makes 'good' writing and learning. In addition, they have weaknesses in background, procedural and strategic knowledge.

1.1.1. **While-Instruction Phase**

a. **The Experimental Instructional Framework:** The metacognitive-raising instruction relied mainly on the explicit teaching of writing strategies through teaching steps inspired from CALLA in ways in which the teacher can plan, sequence, support, and assess writing and learning, the use of self and peer editing sheets (Appendix C & D) and a scoring rubric (Apendix E), unstructured interviewing and conferencing, and through regular correction and commenting on students' written products. The instruction also interwines teacher and learner roles in the different stages, as the following table clarifies :

1 - By applying the Likert Type five-point scale, students' responses are transformed into interval scores, and every answer correlates with a mark or a number of points from 1 to 5.

2 SPSS (Statistical package for social sciences) which is a statistical programme that has permitted the execution of the different calculations

	Teacher's role	Students' role
Stage One: Planning	specifies objectives of the lesson and activates students' background knowledge	attend and participate and reflect on the nature of the task as well as on the objectives to be attained
Stage Two: Sequencing	- explains how to write a piece of writing starting from a model, - teaches explicitly writing strategies (prewriting, outlining, drafting…) - provides practice in the form of individual, pair or group work	- apply strategies with guidance - write a list of words sentences and try different prewriting techniques to arrive to a first draft of the topic
Stage Three: Monitoring	gives feedback on learners' first draft and provides guidance to students through unstructured interviews	are trained to self-questioning to monitor their own progress, and to using the writing and regulatory strategies learned in the previous steps
Stage Four: Assessing and Expanding	- provides more practice and supports transfer of strategies to new tasks - evaluates students' written products and use of strategies via written comments or grades - encourages independent use of writing and regulatory strategies	- are encouraged to self- and peer-editing scoring, using self- and peer-evaluation sheets - self-assess own strategies and, and self-regulate their writing in new tasks - become self-directed and use strategies independently

Table1. Steps of the Writing Instruction

At the beginning of the instruction, many students seemed not 'open' to writing, suffering for the writer's block as they have difficulties in activating background knowledge. Furthermore, the majority of students wrote in free writing form, with an informal outline, in addition to L1 and FL1 clear influence. However, this instruction has contributed in building students' awareness by learning to plan, monitor, evaluate and revise one's own thinking processes and products. Such actions have helped them to know themselves as writers and adjust their beliefs and knowledge of the writing task and its requirements, as well as to acquire strategies for how to deal with problems they may have in writing or in learning. Furthermore, scaffolded instruction has helped shift learning responsibility from teacher to learner, and thus has contributed in the building of their autonomy. Consequently, one may perceive a positive correlation between metacognitive awareness in writing, self-regulation in writing and in learning, and ultimately autonomy in learning.

b. The Teaching Platform: In order to implement computer-assisted writing, the researcher has designed (within a national e-learning program) a teaching platform (a moodle) to help learners write more accurately, more confidently, and ultimately more autonomously. The software contains a collection of lessons supported by links to web-sites. It also enables students to send their homework, questions, and personal writings, as well as contribute in the forum or chat rubrics. The writing tasks move from writing sentences to paragraphs. The focus is different each time: using the Internet for information collection, drafting, revising, and editing. Finally, the students were initiated to connecting to online writing laboratories to be in touch with students and teachers from other universities, and other countries. After the introduction of the learning platform, a greater interaction and integration of the students in the lessons have been noticed. The posted lessons, with the web links helped many learners in understanding lessons and receiving answers to questions

they could not ask to the teacher or mates. Though the students were not open for interaction from the beginning, after many encouragements to use the learning platform, they have later appreciated it and felt it was answering their learning needs.

2.3.3 Post-Instruction Phase

The main focus of this phase is to analyze the effect of the suggested instruction on the students' metacognitive awareness and academic and writing proficiency.

a. Quantitative and Statistical Analysis: According to the quantitative and the statistical analyses (using a Likert Five-Point Scale and/or *t*-test), there is an improvement in EXP sample as opposed to CTR sample; this improvement is also inferentially significant on the part of EXP but not on the part of CTR, mainly in what concerns

- Self-evaluation while performing given writing tasks
- Solutions opted for to improve as writers
- Learning-related problem-solving strategies
- Writing strategies employed before, during and after writing

b. Post-Instruction Scores' Analysis: The researcher has considered the change in the informants' (EXP and CTR) writing and learning achievement by comparing the change in the *mean* of each sample, and then by using the *t*-test for both writing and EFL results (that is comparing the scores of writing obtained in first and second semesterial exams, as well as comparing the first and second semestrial averages obtained by calculating the scores obtained in all the subjects-matters of First Year syllabus).

Writing Scores

	Descriptive Statistics (mean)	Inferential Statistics (*t*-test)
EXP	Mean 2 (11,65) > Mean 1 (11,53)	t-value is -0,388 significance test p-value sig. (2-tailed) = 0,701 p-value > 0, 05
CTR	Mean 2 (10,20) < Mean 1 (10,40)	t-value is -0,678 significance test p-value sig. (2-tailed) = 0.503 p-value > 0, 05

Table 2. Recapitulation of Writing Results

The results reveal a positive impact of the metacognitive instruction on the writing scores of EXP in descriptive terms, but not in statistical terms. On the other hand, even if the decline in CTR writing scores is not statistically significant, these results suggest that the traditional instruction undergone by CTR group has led to a regression in their level.

EFL Scores:

	Descriptive Statistics (mean)	Inferential Statistics (*t*-test)
EXP	averages 2 (12,19)> averages 1 (11,54)	t-value is -7,010 significance test p-value sig. (2-tailed) = 0,000 p-value < 0, 05
CTR	averages 2 (11,33)> averages 1 (10,98)	t-value is -1,850 significance test p-value sig. (2-tailed) = 0,074 p-value > 0, 05

Table3. Recapitulation of EFL Scores Results

These results reveal a positive impact of the metacognitive instruction on the EXP sample EFL scores descriptively and inferentially. However, CTR group improved in EFL scores descriptively but not statistically.

1.4 Interpretation of Results

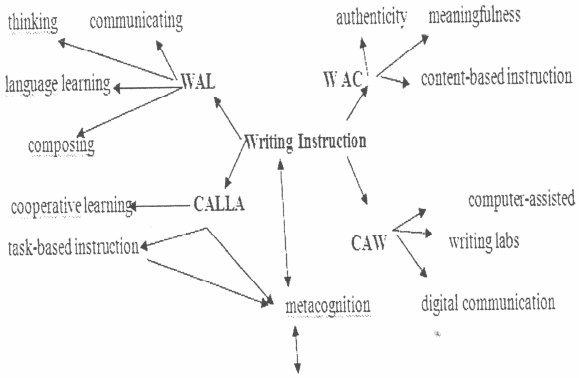
In the while-instruction phase, the informants began to develop metacognitive awareness, particularly with self- and peer-editing sheets. By the end of the instruction, the results obtained via the triangulation process lead us to conclude that EXP group outperformed CTR group (academic success). EXP students have also marked a quantitative and

statistical improvement in a number of questions, leading to suggest a development in their metacognitive awareness that allowed them to improve their writing and learning. Nevertheless, students still consider greatly accuracy over fluency, and rely much on the teacher for correction and for problem-solving; they express also difficulties in time management and study skills. It may be argued that the teacher has a major role in (re)shaping learners' beliefs about writing, initiating them to the writing habit and to autonomy, through a formal instruction. As to the teaching platform, many EXP students show little importance to computer/Internet writing because most of them live on a campus and have no access to the Internet, thereby turning to other options to solve their learning problems. Hence, the teacher, as a guide and a monitor, should give learners more responsibility in lesson planning, and should even create the need for ICTs.

1.5 Pedagogical Implications: These implications are presented below in relation to the research questions mentioned before.

2.5.1. <u>What instructional model would develop learners' metacognitive awareness in writing to achieve satisfactory mastery of this skill</u>?: The analysis of the different research tools reveals that students keep making language mistakes related to grammar and vocabulary choice, spelling and mechanics. This requires reinforcing teaching in these spheres and so calls for writing as learning approach (WAL). In addition, the difficulties expressed by learners in other modules justify the use of writing across the curriculum approach (WAC). Moreover, the big number of students in each group and the limited time devoted to writing gives arguments for the need and importance of CAW. Consequently, the academic framework that results from the study will combine different learning and writing approaches, improving the initial instructional framework by supplementing CALLA and CAW with WAL and WAC.

With WAL, writing is seen as communicating, composing, and language learning. Through the composing practice, learners consolidate knowledge acquired about grammar, vocabulary and syntax with writing organizational devices and techniques. On the other hand, with WAC, authenticity and meaningfulness of the writing tasks are an essential condition for learners to attain success as EFL writers (Braine, 1989 and Johns, 1997). Besides, pedagogically speaking, a content-based instruction seems appropriate to achieve the goals of authenticity and meaningfulness, since it avoids isolating language from content (Grabe & Stroller, 1997). Therefore, the overall design of writing pedagogy will consist into a blended learning instructional model as follows:



A Suggested University Writing Instruction Model

Nevertheless, the suggested teaching framework has to be carefully planned and implemented according to the

gradation in the syllabus. The teacher, then, has to work in collaboration with other teachers of different modules in order to adjust, accordingly, the content and the degree of difficulty of the writing lessons. Thus, genre pedagogy seems to be an appropriate solution (Smoke, 2001). Genre-based approach presupposes to teach writing for a particular purpose. According to (Hyland, 2003), genre approach focuses on the communicative function of texts in specific social contexts. According to this approach, learners gradually study texts in the genre they are going to write in, before they begin to write. Hyland also maintains that genre pedagogy is explicit, systematic, needs-based, supportive, empowering, and consciousness-raising. Furthermore, there should be an integration of the four skills, particularly writing in content modules for a well balanced EFL instruction. Moreover, the essential role of the teacher presupposes teacher-training to take strategy-instruction into account, in order for the teacher to be able to guide learners develop in learning and writing.

2.5.2 Would the proposed writing instructional framework lead to a better writing and EFL academic achievement?: The results suggest a positive effect of the writing instructional model used since students in the EXP group have scored relatively better than the CTR group, and so they have improved their English proficiency in general and their scores in the writing module in particular. In addition, though at the beginning of the instruction, the students did not have any idea of how to monitor their work and so how to develop awareness in their learning and writing process, progress has been noticed over time, mainly through tasks such as self and peer editing. Metacognitive awareness appeared slowly, and it occurred in different degrees and different forms among students, as personal variation also played a role.

2.5.3 How can e-learning enhance writing and learning strategies instruction?: The learning platform has offered students an opportunity for individualized learning as every student could learn at his/her own pace. It has also promoted learner autonomy in

that they could take in charge their own weaknesses, find appropriate solutions from different sources and learn collaboratively. All these are in correlation with CALLA principles. Moreover, e-learning has opened the possibility for interaction between teacher and students and between students themselves. This reinforces the idea of mediation between the teacher, the ICTs and students in a socio-constructivist dimension, where the teacher gives gradual support to the students in the use of ICTs, before training them in autonomy. To sum up, writing and EFL instruction should be supported by a theorized practice that is reinforced by the use of ICTs, which would facilitate an authentic development of social and cognitive processes. However, the presence of ICTs depends on the context, and so their use or intake can be limited to the availability of equipment, the proficiency of teachers and to the involvement of students.

3. CONCLUSION

Writing is not a mere skill; it is an act for making meaning and advancing thinking. Writing has a functional role to play in the course of studies; it is a learning tool and so has to be promoted as such. Writing at university level particularly involves a number of complex activities and such understanding, analyzing and memorizing a great number of information. It also requires students to select appropriate strategies to solve problems related to learning. All these activities involve metacognition and thus call for instruction into the development of metacognitive awareness to benefit learners' literacy skills. The goal of this study is to produce innovation and change in the university writing curriculum in terms of instruction and evaluation. It suggests a blended learning approach which adopts main principles of CALLA and combines them with WAC and CAW with an overall objective for WAL. The instruction is effective and highly recommended if we aim at developing students' metacognitive awareness that would lead them to self-regulation and ultimately to autonomy. Nevertheless, there emerges a necessity to reconsider syllabus design, as well as to redesign the sug-

gested framework for teaching writing at tertiary level, on the basis of learners' writing and learning needs, in a digital era. This paper thus highlights the importance of implementing the use of ICTs at university level for a successful EFL and writing instruction. Students would as such be able to improve in writing, in learning EFL, and in lifelong learning.

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