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**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 والتعلم 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.

**alsoped·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 <sup>1</sup> and applying SPSS version 20.0 program<sup>2</sup>. 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.

#### **1.1.1.1. 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 (Appendix E), unstructured interviewing and conferencing, and through regular correction and commenting on students' written products. The instruction also intertwines teacher and learner roles in the different stages, as the following table clarifies :

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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



	<b>Teacher's role</b>	<b>Students' role</b>
<b>Stage One: Planning</b>	<p>specifies objectives of the lesson and activates students' background knowledge</p> <ul style="list-style-type: none"> <li>- explains how to write a piece of writing starting from a model,</li> <li>- teaches explicitly writing strategies (prewriting, outlining, drafting...)</li> <li>- provides practice in the form of individual, pair or group work</li> </ul>	<p>attend and participate and reflect on the nature of the task as well as on the objectives to be attained</p> <ul style="list-style-type: none"> <li>- apply strategies with guidance</li> <li>- write a list of words/sentences and try different prewriting techniques to arrive to a first draft of the topic</li> </ul>
<b>Stage Two: Sequencing</b>	<ul style="list-style-type: none"> <li>- gives feedback on learners' first draft and provides guidance to students through unstructured interviews</li> </ul>	<p>are trained to self-questioning to monitor their own progress, and to using the writing and regulatory strategies learned in the previous steps</p>
<b>Stage Three: Monitoring</b>	<ul style="list-style-type: none"> <li>- provides more practice and supports transfer of strategies to new tasks</li> <li>- evaluates students' written products and use of strategies via written comments or grades</li> <li>- encourages independent use of writing and regulatory strategies</li> </ul>	<ul style="list-style-type: none"> <li>- are encouraged to self- and peer-editing /scoring, using self- and peer-evaluation sheets</li> <li>- self-assess own strategies and, and self-regulate their writing in new tasks</li> <li>- become self-directed and use strategies independently</li> </ul>
<b>Stage Four: Assessing and Expanding</b>		

**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 semestrial 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

**Table 3. 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

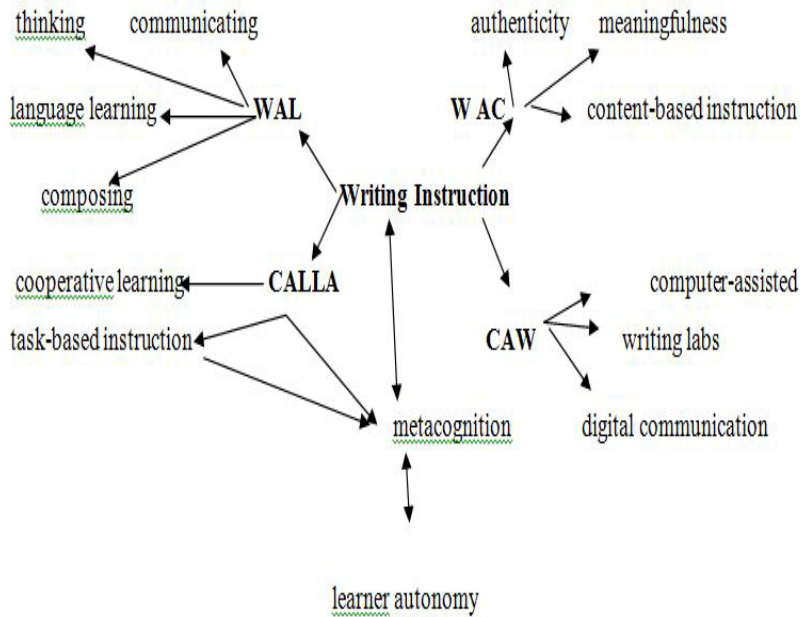
In the while-instruction phase, the informants began to develop metacognitive awareness, particularly with self- and peer-editing sheets. By the end of the instruction, the results obtained via the triangulation process lead us to conclude that EXP group outperformed CTR group (academic success). EXP 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. What instructional model would develop learners' metacognitive awareness in writing to achieve satisfactory mastery of this skill?:** 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 & Stoller, 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.

## REFERENCES

- Akturk, A.O. & Sahin, I. (2010). '*Analysis of Community College Students' Educational Internet Use and Metacognitive Learning Strategies*'. *Procedia-Social and Behavioral Sciences*. Vol 2/2, 5581-5585.
- Braine, G. (1989). '*Writing in Science and Technology: An Analysis of Assignments From Ten Undergraduate Courses*'. *English for Specific Purposes*, 8, 3-15
- Chamot, A.U., & O'Malley, J. M. (1994). '*Language Learner and Learning Strategies*'. In N. C. Ellis, (Ed.). *Implicit and Explicit Learning of Languages*. London: Academic Press.
- Chamot, A.U. et al.(1999).*The Learning Strategies Handbook*. New York. Addison Wesley Longman, Inc.
- Devine, J. (1993). *The Role of Metacognition in Second Language Reading and Writing*'. In J.G. Carson& I. Leki (Eds.), *Reading in the Composition Classroom: Second Language Perspective*. (pp. 195-127).
- Elbow, P. (1994). '*Writing for Learning- Not Just For Demonstrating Learning*'. University of Massachusetts, Amherst, 1-4.
- Flavel, J.H. (1976). '*Metacognition and Cognitive Monitoring: A New Area of Cognitive Development Inquiry*'. *American Psychologist*, 34, 906-911

- Flower, L & Hayes, J.R. (1981). *A Cognitive Process Theory of Writing*. College Composition and Communication, Vol. 32/4, 365-387
- Grabe, W. & Stoller, F.L. (1997). ‘*Content-Based Instruction: Research Foundations*’ In Snow, M.A. & D.M.Briton, D.M.(eds).*The Content-Based Classroom: Perspectives on Integrating language and Content*. White Plains, NY. Addison Wesley longman.5-21
- Harmer, J. (2001). *The Practice of English Language Teaching*. England. Pearson Education Limited.
- Hogue, A. (2008). *First Steps in Academic Writing*. USA. Pearson Education, Inc.
- Hyland, K. ( 2003). *Second Language Writing*.USA. CUP
- Johns, A. (1997). *Text, Role, and Context: Developing Academic Literacies*. Cambridge, UK. Cambridge University Press.
- Kasper, L.(1997). *Assessing the Metacognitive Growth of ESL Student Writers*  
*Metacognitive knowledge in EFL writing*. Language Teaching & Learning. Investigator’s Brochure, CRF, ICF, Study Protocol, Reports [oct-clinicaltrials.com](http://oct-clinicaltrials.com)
- Lee, K.W.(2000). ‘*English Teachers’ Barriers to the Use of Computer-assisted Language Learning*’.The Internet TESL Journal. Vol. VI/12. December 2000 <http://iteslj.org/>
- Mevarech, Z.R., Zion,M and Michalsky,T. (2007). ‘*Developing Students’ Metacognitive Awareness in Asynchronous Learning Networks in Comparison to Face-to-Face Discussion Groups*’. Journal of Educational Computing Research, Vol 36/4,395-424.

- O'Malley, J.M. and Chamot, A.U. (1990). *Learning Strategies in Second Language Acquisition*. UK. CUP.
- Oshima, A. & A. Hogue. (2006). *Writing Academic English*. USA. Pearson Education, Inc.
- Oshima, A. & A. Hogue. (2007). *Introduction to Academic Writing*. USA. Pearson Education, Inc.
- Paivi, T; Mason, M & Lonka, k (eds.). (2001). *Writing as a Learning Tool: Integrating Theory and Practice*. Dordrecht, Boston & London: Kluwer Academic Publishers.
- Paris, S.G., & Winograd, P. (1990). 'How Metacognition Can Promote Academic Learning and Instruction'. In B.F. Jones & L. Idol (Eds.), *Dimensions of Thinking and Cognitive Instruction* (pp. 15- 51). Hillsdale, NJ: Lawrence Erlbaum
- Petric, B & Czarl,B.( 2003). *Validating a Writing Strategy Questionnaire*. System. 31,187-215
- Rivers, W.M. (1968). *Teaching Foreign Language Skills*. USA. The University of Chicago Press.
- Schraw, G. & Moshman, D. (1995). *Metacognitive Theories*. Educational Psychology Review, 7(4), 351-371.
- Sinclair, R.S. (2010). *Thinking and writing: Cognitive Science and Intelligence analysis*. Washington, DC. Center for the Study of Intelligence.
- Smoke, T. (2001). 'Instructional Strategies for Making ESL Students Integral to the University'. In Silva.T & Matsuda, P.K. (eds). *On Second Language Writing*.USA. Library of Congress Cataloging-in-Publication Data
- Sullivan, N.& Pratt, E.(1996). 'A Comparative Study of Two ESL Writing Environments: A Computer-Assisted Classroom

and a Traditional Oral Classroom'. System. Vol 24/4, December 1996, 491-501

- Xiao, Y.(2007). *Applying Metacognition in EFL Writing Instruction in China*. Reflections on English Language Teaching, Vol. 6/1, 19-33
- Zhang, Y. (2010). 'Investigating the Role of Metacognitive Knowledge in English Writing'. HKBU Papers in Applied Language Studies Vol. 14, 25-46

## APPENDICES

### APPENDIX A: Students' Questionnaire

#### Part1: Person knowledge

- 1- What are the main difficulties that you have encountered during your university studies till now?
- 2- Do you like writing in English?
- 3- Is learning to write important for your success as a student?
- 4- How do you estimate your level in English and in Writing?
- 5- On a scale from 1 to 5, show how confident you feel when you perform the writing tasks. Tick in the right column.

Items	1	2	3	4	5
1- Write a clear, focused and unified					
2- Support my ideas with <u>details</u> .					
3- Use effective words in the text.					
4- Write a well- <u>organised</u> text.					
5- Use correct <u>grammar</u> .					
6- Use <u>mechanics</u> correctly.					
7- Avoid L1 (Arabic) and FL1 (French) interference.					
8- Write successfully in different text types.					
9- Write successfully in all modules.					

## **Part 2: Task knowledge**

- 7- When you write, to what extent do you consider the topic, the purpose, the audience (the reader), or the structure and organization of the writing task?
- 8- What do you do/should you do most to improve your writing competence?
- 9- You prefer correction of your writing to be by yourself, by classmates, or 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).
- 11- What aspect(s) of the language do still need to improve?
- 12- Do you regularly write paragraphs in other modules to improve your proficiency level? Why? Or Why not?
- 13- When you have trouble while learning, you try to overcome the problem individually, with the help of classmates, or with the help of your teacher(s)? Please, say why?

### **B/ The writing process proper**

- 14- Tick in the appropriate column (1 to r5) that tells **how true of you the statement is**

#### **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 write an outline of my paper.					
3- I think about the purpose of my writing.					
4- 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 go back to my outline and make changes in it.					
3- I go sure for grammar and vocabulary.					
4- I use the dictionary if necessary.					
5- I ask my peers or the teacher for help.					
6- I think about the purpose of my paper.					
7- I think about the people who would read my writing.					
8- I use the computer to write quickly.					

### c) When revising

Items	1	2	3	4	5
1- I check and make changes in vocabulary, spelling and grammar, or paragraph structure					
2- I use a computer spell-checker.					
3- I revise the draft for content and clarity of meaning.					
4- I check if my paragraph/essay matches the topic requirements.					
5- I ask peers or the teacher to make suggestions on my first draft					
6- I edit my draft individually.					

Adapted from Petric, B & Czarl,B(2003)

## APPENDIX B: Students' Interviews

### Interview 1

- 1- How do you want your teacher to help you improve as a learner?
- 2- What is your definition of good writing/learning?
- 3- Do you set clear learning objectives by the beginning of the academic year? Why/ Why not?

## Interview 2

- 1- Did you follow the three steps of the writing process in the exam(s)?
- 2- Did you begin with the outline first or with the paragraph directly? Why?
- 3- Did you follow the three steps of the writing process in other modules' exams?

### APPENDIX C: Self-editing Sheet

**Example: The paragraph**

Writer.....Date.....

<b>Format</b>		
My paragraph is correctly formatted	yes	no
<b>Organisation</b>		
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
<b>Sentence Structure</b>		
Every sentence has at least one S V and expresses a complete thought	yes	no
<b>Punctuation, capitalisation, an spelling</b>		
I put a period after every sentence.	yes	no
I used capital letters correctly.	yes	no
I checked my spelling.	yes	no
<b>Personal grammar trouble spots</b>		<b>Number found and corrected</b>
I checked my paragraph for.....errors (verb tense, article, etc)	.....	.....

(Hogue, 2008:196)

**APPENDIX D: 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

Adapted from (Hogue, 2007: 202)

**APPENDIX E: 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, p.196)