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**Incorporating Reflective Teaching Practice to
Promote Autonomous Computer Assisted Language
Learning: The Case of EFL Learners at Naama
University Center**

*Dissertation Submitted to the Department of English in Candidacy
for the Degree of "Doctorate" in Language Studies.*

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Statement of Originality

I hereby certify that this thesis represents my own work and has not been taken from the work of others, or previously included in a thesis, dissertation or report submitted to this university or to any other institution for a degree, diploma or other qualifications, except where due cited and acknowledged is made.

Ms. YAICHE Wahida

Dedications

I dedicate this work to my mother whose sacrifices, whole care and passionate devotion enthused me with will and self-confidence.

A special feeling of gratitude goes to my loving husband whose words of encouragement and motivation for insistence and persistence still ring in my ears. I greatly value the moral support and the company he gives me.

To my son whose presence in my life inspired me to set high goals and initiated me to achieve them.

This work is also dedicated to my parents in law who helped me and instilled in me the encouragement to complete this work. I deeply appreciate their confidence in me.

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Abstract

The ongoing development of technology has brought significant changes in foreign language education. As an outcome, CALL laboratories emerged and became widely recommended in schools and universities. CALL has introduced a thorough transformation in the roles given to teachers and learners, and learner autonomy has become a desirable goal. In fact, promoting autonomous learning is not easy to achieve but requires methodical and purposeful designed experiences.

Essentially, autonomy is a challenging CALL outcome that can be introduced in terms of what teachers do in the classroom; including their practices and attitudes and the influence of those on the learning process. In hope to cope with the teaching practices, teachers need to reflect on their actions. Reflection, generally, means thinking about one's actions. It is widely recognized as a necessary skill for growth and intellectual development. Therefore, the present investigation is an action research primarily concerned with the recommendation of reflective teaching practice in CALL laboratories to support autonomous learning.

Accordingly, the main purpose designed to this study is to investigate and examine the teacher's (researcher) practices in the environment of CALL using a variety of data gathering methods including learner autonomy scale, observation on self and other peers, journaling and interviewing. In addition, the degree to which materials presented through CALL are autonomy supporting and the factors that may encourage the learners' self-directedness are also researched within the scope of the study. All these intents are premeditated to develop an action plan based on a summary of findings, recommended actions, and the identification of the factors responsible for increased autonomous learning and those need to be consulted and informed.

Moreover, it intends to investigate the effects of the adopted action plan on learners' autonomy as part of the researcher's (teacher) own ongoing professional development, and make the achieved results accessible to others.

The main findings obtained from this investigation demonstrate that the effectiveness of CALL in developing learners' autonomy is dependent on the teaching methodology used. Furthermore, the gathered data revealed that reflection is a useful practice for teachers to refine their own teaching methodology and develop plans of action that allow learners to take responsibilities, offer them more roles, and authorize them to make choices and direct their own learning.

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List of Abbreviations and Acronyms

BMD: Bachelor Master Doctorate

CALL: Computer Assisted Language Learning

CPU: Computer Processing Unit

EFL: English Foreign Language

ELT: English Language Teaching

ESP: English for Specific Purposes

FL1: First Foreign Language

FL2: Second Foreign Language

FLL: Foreign Language Learning

ICT: Information and Communication Technology

L.1: First Language

L.2: Second Language

LMD: Licence Master Doctorate

OPG: Oxford Practice Grammar

PC: Personal Computer

PPT: PowerPoint

SD: Standard Deviation

TEFL: Teaching English as a Foreign Language

ZPD: Zone of Proximal Development

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Chapter one

Introduction: Setting the Groundwork

CHAPTER ONE

Introduction: Setting the Groundwork

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1.1. RATIONALE

The increasing significance of English as a global means of communication, the progress of technological learning tools and the educational reforms are considered as key contributors to the new advancements in English language teaching methodology. Indeed, EFL teaching is a complex and demanding process where the teacher plays an ever-significant role especially in today's classrooms where technology is claimed to be an innovative pedagogical solution to promote foreign language learning. However, among the most intensive problems that may learners face is autonomy. Fortunately, it is specifically proposed that computer technology can be used to enhance learners' autonomy in the area of language education to promote learning and reinforce students to perform in a self-directed manner. Accordingly, teacher's reflective practice in the classroom is recommended.

In this concern, Autonomy is an area of interest in educational psychology that refers to the students' degree of independence and capacity to take charge of both the strategy and content of learning. It is defined by Rivers and Golonka as, "the active, independent management of learning by the learner" (2009: 255). It can be also discussed under the labels of self-regulation, learning-how-to-learn, learner independence, self-directed learning or self-access learning.

One of the claimed outcomes of CALL programs is the ability for students to learn at their own pace in their own time. CALL programs are designed to give teachers the role of facilitators rather than spoon feeders or knowledge providers. This role fits well with the constructivist view of learning which stressed offering students with more opportunities to handle responsibility for their own learning (Murray, 2007). Nonetheless, the provision of technological tools such as computer devices in educational institutions should be accompanied by changes in the forms in which instructed materials are presented to profit from the role of CALL in

promoting learners' autonomy. Therefore, a sound attention has been drawn towards the importance of reflective teaching in CALL laboratories.

Recently, research has thrown substantial attention to the significance of reflective teaching practices at a large extent. Typically, reflective teaching practice on, in and for action can be undertaken using various tools, including observation, journaling, and reflective interviewing. Throughout the process of data collection, teachers can critically analyse and evaluate their teaching methodology to effectively use technology for increased learner autonomy.

Considerably, learners' autonomy is a crucial part of successful language acquisition. Its significance in foreign language learning has been widely investigated in several books and articles. Johnson K. and Johnson H. assumes that learners' autonomy is based on the environmental conditions that are responsible for the individualization of instruction and the enhancement of patterns of self-directed learning (1999). Thus, the dynamics of critical teachers' reflection to support autonomous EFL learning through CALL have been placed at the heart of research for the present thesis. Such a puzzling discussion between CALL, autonomy and reflective teaching constitutes a motive towards conducting this investigation. It struggles, then, to raise the problem of autonomy in CALL laboratories, use a number of reflective teaching practices for teachers' self and peer evaluation, for the sake of introducing a valuable contribution to the development English language teaching profession.

1.2. PREVIOUS STUDIES

As an applied discipline, educational psychology attempts to cope with the complexity of human learning and account for students' characteristics in classroom settings. It had a considerable significance in approaching the fast growing challenges that education has faced in the 21st century using psychological theories, procedures and research (Eloff and Eberöhn, 2004). Moreover, this area of scientific inquiry gives considerable attention to

individual differences in the learning environment such as autonomy, which is currently said to be one of the major areas of study in the field of educational psychology (Larson, 2009).

Autonomy acts as a crucial variant that may determine successful language learning, it has been the subject of many studies in the field of language education. In political philosophy, Raz defines autonomy as, “the free choice of goals and relations as an essential ingredient of personal well-being” (qtd. in Benson, 2007: 732). Accordingly, personal autonomy has long been recognised as an objective of educational systems that aims to mature individuals with free and critical involvement in the society where they live. As far as personal autonomy is concerned, autonomy in learning is particularly concerned with learners’ active involvement in the process of their individual learning. This involvement is considered as important not only to the improvement of personal autonomy but beneficial to the process of learning as well.

In this concern, the concept of autonomy in language learning relies to the student-centered educational thought of thinkers like Dewey (1916), Freire (1970), Illich (1971), and Rogers (1969); in research on adult self-directed learning conducted by authors as Brookfield (1986), Candy (1991), Knowles (1975), and Tough (1971); and by writers in the psychology of learning such as Kelly (1963), Barnes (1976), Kolb (1984), and Vygotsky (1978). In the field of language learning, the idea of learner autonomy was first introduced in the 1970s in the context of the Council of Europe’s Modern Languages Project, which was designed to offer learners with prospects for lifelong foreign language learning. Since then, autonomy has gained increasing attention in the field of foreign language education, and a considerable amount of books, collections of papers, and journals have been introduced by writers such as Barfield & Nix, 2003; Benson, 2001; Benson & Toogood, 2002; Benson & Voller, 1997; Brookes & Grundy, 1988; Cotterall & Crabbe, 1999; Dam, 1995; Dickinson, 1987; Dickinson & Wenden, 1995; Holec, 1988; Little, 1991; Palfreyman & Smith, 2003 (Benson, 2007).

Consequently, Thomas (2009) contended that autonomy in learning is said to be a skill that cannot be developed naturally but that needs to be maintained by the learning environment. In a recent study, Benson (2001) proposed a clear taxonomy that reviews a variety of approaches and conditions, which can be applied to foster students' autonomy; among which is a technology based environment that emphasizes independent interaction with technological devices such as computers. In the same line of thought, Erben et al. believe that, "technology-enhanced classrooms have been found to promote discovery learning, learner autonomy, and learner-centeredness" (2009: 81).

As a form of technology supported learning, CALL is also deliberated as an approach in language learning in which computers are used to present learning materials to language students, or where computers are employed as tools to aid language learning. Besides, CALL is assumed to offer opportunities for learner's self-direction of the EFL learning process. One of the claimed benefits of CALL Programs is that learners are given the chance to work at their own pace (Zhang, 2012). It has been also argued by Pritchard (2007) that the variant of autonomy in language learning is improved through the employment of computers. In another study, Law et al., (2003) stated that computer based activities are said to develop in the learner a sense of autonomy and self-direction of the learning process.

In the magister study conducted in 2013, the researcher has investigated the usefulness of CALL in higher education as a means to promote motivation of second year undergraduate EFL learners at the University of Tlemcen. The main findings obtained from this investigation demonstrated that most of the EFL learners show, to some extent, increased motivation when learning English using computers. The relevance of autonomy to motivation, which has been highlighted in the self-determination theory, has stimulated the researcher to investigate students' autonomy and capacity to take charge of learning that may be enhanced by the environmental conditions CALL provides. The gathered data revealed

that the effectiveness of CALL in promoting learners autonomy is totally dependent on the teacher's managerial skills including the teacher's ability to teach through computers, create an enjoyable classroom atmosphere, provide supportive environmental conditions and manage the learners' behaviours, movement and interaction in such challenging environment.

The accumulated data which have shown that the teacher is the corner stone playing a vital role in the mission of CALL have encouraged the researcher to continue within the same study which was only a prelude for further research focusing on the variable of autonomy rather than motivation. Consequently, the main objective of this study is to test the usefulness of one of the proposed recommendations that may result in an autonomous CALL. In this manner, it has been recommended that reflective teaching is one of the practices that the teacher can take up for helping the learner to be active, responsible and self-directed using the computer successfully for the acquisition of the four skills.

Since the time of Dewey, the act of one's thinking about his/her practice has been referred to as reflection and within the field of education there has been a trend towards developing reflective practitioners. According to Loughran (2005), reflection is obvious to the successful process of teaching. He further claims that Dewey's (1933) work of *How We Think* has contributed a lot to the continually received attention that reflective practice has gained in the field of education.

Dewey (1933) states that reflection is useful in helping teachers to make use of their artful skills to view problems from different perspectives, create a meaningful learning environment, guide and direct the learning process, and thus help learners make sense of the presented information (Loughran, 2005).

The reflective approach to teaching can be maintained through critical self-evaluation as a source for making decisions, planning and action. It is a means by which teachers accumulate information about teaching, assess

their attitudes, beliefs, assumptions, and teaching practices; and utilize these information as groundwork for critical reflection about teaching. The latter can also be used as a means for professional development (Richards and Lockhart, 1996). In this vein, McEntee says

Reflective teaching is peeling back the layers of our own daily work, looking under the surface of our own teaching, making a conscious attempt to see our teaching selves as students see us, or as an observer in our classrooms would. It also means looking at the wider contexts that affect our teaching—issues of social justice, of school structure, of leadership (2003: xiii)

In the same line of thought, Bartlett (1990) and Wallace (1991) contended that critical reflection could elicit a profound understanding of the teaching situation by asking questions about how and why things are the way they are in the educational setting. It entails an examination of the teaching experience as a means for assessment and decision-making and a basis for adjustment (Richards and Lockhart, 1996).

Consequently, various studies have been carried out for the sake of investigating the use of computer technology for self-directed language learning. Recently, Hayta and Yaprak (2013) have found in their investigation entitled “*Learner Autonomy and Computer Technology as a Facilitator of Autonomous Language Learning*” that learners show a considerable amount of autonomous learning activities when using technology. The relevance of teacher’s reflection to autonomous foreign language learning has been also highlighted in countless studies. Little (1995) argues that discussions of the objectives, course content, the way by which this content is presented, learning experiences and the evaluation of learners’ outcomes are significant to promote EFL learners autonomy in the classroom.

Yin and Chuk (2004) found that critical reflective practice has positive effects on learners' autonomy. They further claimed that both teacher and learners become more autonomous and the quality of discussions in the classroom is enriched.

As a result, the present study is, then, a practical action research, which is based on the assumption that the teacher's reflective practice in CALL laboratory is advantageous to maintain self-directed learning. It attempts to reach the conclusion about whether learners' capabilities to take responsibility of their own learning in CALL environment are being set in stone or are changeable after teacher's reflection about her practices.

1.3. STATEMENT OF THE PROBLEM

The effective teacher is the one who realizes that successful learning requires from learners to be autonomous. This can be attained through giving learners the opportunity to practice on their own. In such view, the teacher's role in CALL environment is absolutely different from that of the classical environment. S/He has to take the role of the facilitator who provides opportunities to learners, so that they will be empowered to learn. As CALL researchers' Murray and Christison said, the teacher becomes "the guide on the side" rather than "the sage on the stage". (2010:50).

Nowadays' EFL learners have unprecedented possibilities to acquire the four basic language skills, namely listening, speaking, reading and writing, in multimedia CALL environment. As many universities in Algeria, Naama University center has also benefited from multimedia CALL environments in which two (2) well equipped laboratories are provided for EFL learners.

Nonetheless, the provision of technological tools such as computer devices in educational institutions should be accompanied by changes in the forms in which instructed materials are presented to profit from the role of CALL in promoting learners' autonomy, and it is not the case in the

university center of Naama. Teachers are excited to use computer laboratories to deliver the instructed materials especially the listening and speaking activities; however, they are still using traditional teaching and learning strategies in such autonomy-supporting atmosphere where the learners are totally dependent on their teachers with no hand on their learning process.

This could be probably due to various reasons including, lack of training, faulty methodology, insufficient knowledge, and/or inappropriate classroom management. Therefore, the mission undertaken by teachers to transform their teaching practices is not bereft of issues. There are countless obstacles that come from many directions. It is in this context that reflective teaching may be significant as a dynamic mechanism to overturn the teaching and learning strategies in order that CALL will be advantageous in promoting EFL learners' autonomy.

After a period of teaching EFL learners the module of oral comprehension/expression in CALL laboratories, the teacher (researcher) found out many difficulties related to learners' autonomy. It was an observable issue during the majority of sessions in which most of learners were relying on the teacher's help. Many techniques were taken on by the teacher-researcher but with no value. This disappointment pushed the teacher to feel frustrated and not happy with herself as a teacher. For this reason, the teacher decided to adopt reflective practice in her teaching through CALL.

Reflective teaching practices such as observation on self and other colleagues, weekly journals, students' surveys and reflective interviews are suggested to be among the various tools that teachers can use to destroy any obstacle by critically analysing and evaluating their teaching styles to become effective users of technology in teaching for increased learner autonomy.

Based on the analysis of the significant role of reflection in teaching English as a foreign language and the autonomy-supporting feature of CALL, the main objective sets out to this research work is to assess the role of reflective teaching in promoting EFL learners autonomy in CALL labs focusing on the question of how may reflective teaching practice be useful for CALL to enhance EFL learners' autonomy?

1.4. THEORETICAL AND PRACTICAL APPROACH

Research and investigation have been enriched in the field of foreign language education throughout this demanding and challenging age of globalization. This is evident in the development of the professional activity of education that is reflected in the constantly growing number of books, journals, symposiums and conferences related to the raised issue of the present research work.

The investigation at hand is, then, based on practical action research, which includes the joint use of different research approaches and procedures. In that sense, practical action research entails rich descriptions of the identified issue and the planned change; introducing new instructional practices, collecting both quantitative and qualitative data from multiple sources, and analyzing and interpreting data for the generation of actionable knowledge. Thus, practical action research may be used as a practice for change and improvement as it merges between research and action. As believed by Lodico et al.

Action research is designed to enhance and improve current practice within a specific classroom, school, or district. Typically, it is a type of research undertaken by practitioners who have identified problems they wish to solve or who would simply like to find ways to enhance their own teaching or student learning, or both. (17: 2006)

Hence, within research in educational setting, a number of researchers have advocated a particular methodology that will result in immediate benefits for education. In this respect, Creswell (2012) believes that of all research designs, action research may be the most applied and practical type of research by which teachers as researchers explore a specific practical problem with the purpose of developing a solution to that problem. Therefore, action research is said to be a systematic procedure adopted by teachers to collect information and improve the ways their classrooms operate, their teaching and their students' learning. This study relies for the most part on a practical action research design in which the researcher engages in a participatory self-reflective research, while collecting both quantitative and qualitative data from diverse sources.

1.5. RESEARCH OBJECTIVES

The main objective behind writing this thesis is set out to demonstrate that the individual difference of autonomy as an effective dimension of EFL learning is clearly addressed in the environment of CALL and that it can be significantly fostered through teacher's critical reflection about her own teaching practices. Unfortunately, very little is written about the relevance of reflective practice as an applied focus responsible for the enhancement of EFL learners' autonomy in CALL laboratories.

In view of that, the aims of the present research work are deliberated to investigate and analyze the teacher's (researcher) practices in the environment of CALL, the degree to which materials presented through CALL are autonomy supporting and the factors that may encourage the learners' self-directedness. All these aims are premeditated to develop an action plan based on a summary of findings, recommended actions, and the identification of the reasons responsible for the learners' low autonomy level and the teaching practices that need to be consulted, informed and refined. Moreover, it intends to investigate learners and peers' perceptions of the developed action plan (that is OPG Software) as part of the researcher's

(teacher) own ongoing professional development. In a clearer picture, the objectives of this research work are:

- ✓ To highlight factors influencing learners' autonomy in CALL laboratory.
- ✓ To measure the extent to which teacher's critical reflection is advantageous to develop techniques and strategies that encourage learners to act in a self-directed manner in the setting of CALL.
- ✓ To evaluate the teacher's adopted action plan in order to find out if OPG might be possible to enhance autonomous EFL learning by modifying certain parameters of our instructional techniques which, perhaps may activate learners' self-directedness.

1.6. RESEARCH QUESTIONS AND HYPOTHESES

Therefore, with in the case of higher education, the goal of this research work is to answer the following question of how may teacher's reflection about her actions in the environment of CALL be advantageous to maintain learners' autonomy? Based on this research problematic, four sub-research questions were raised as follows:

- 1) Do EFL learners inevitably benefit from the autonomy-supporting feature of CALL?
- 2) Can reflective teaching practices be useful in developing teachers' performance to support autonomous CALL?
- 3) Which reflective practices best promote EFL learners' autonomy in CALL laboratory?
- 4) What are the characteristics of the action plan that promote learners' autonomy in CALL environment?

In order to investigate these questions the researcher puts forward the following hypotheses:

- 1) No, EFL learners may be placed in CALL laboratories but they may not necessarily be autonomous
- 2) Yes, reflective teaching practices can offer teachers an opportunity to recognize and make use of their strengths, and positively deal with their weaknesses.
- 3) For the creation of an autonomous CALL, EFL teachers need a reflection for action on their performance using reflective journals and peer observation in order to develop an action plan that develops the degree to which learners are encouraged, self-initiated and given responsibility to solve problems.
- 4) Reflective practice for autonomous CALL have to result in a plan of action that embraces the cognitive, metacognitive, social and affective factors to autonomous learning in addition to the integrative qualities of CALL.

1.7. INITIAL LIMITATIONS AND DELIMITATIONS OF THE STUDY

It is worth reminding that this research work is a practical action research aims at assessing the effectiveness of reflective teaching practice to promote autonomous CALL. At this level, the researcher has identified two types of limitations though the researcher has tried to deal with them. These limitations might be summarized as follows:

- The participants who have been selected for this study are two groups of thirty (30) EFL learners and ten (5) teachers. This fact may have some impact on the generalizations of the results; however, it opens the door for further research and further understandings of teachers' reflective practice and learners' autonomy while dealing with English in CALL environment.
- The amount of time devoted for the study is one year only, which may not be enough for practical action research, and the results are related to limited time-span.

Nonetheless, this research work has both benefits and shortcomings like any other type of research, hence, greater depth and understanding is needed to further elucidate the issue in question. Possible investigations based on large samples and considerable amount of time may help reach the generalization of the findings.

1.8. ORGANISATION OF THE THESIS

In order to probe the aforementioned hypotheses, six chapters are devoted to this research work. The present chapter has, in fact, been dedicated to setting the groundwork for the present investigation; its aim is to identify the rationale for this study, its problematic, its objectives, its research questions and hypotheses; it sheds light on previous related studies; and it also identifies a number of limitations and delimitations of the present thesis.

The critical review of literature relevant to this research work is dealt with in the second chapter. It discusses some key concepts utilized in this study, including reflective teaching practice, CALL as a pedagogical tool in the EFL context and autonomy as a psychological variable, which may be enhanced after the teachers' development of an action plan as a result of reflection.

The research design chapter offers the basis for a practical study in the English Department at Naama university center. The researcher selects a descriptive approach in this chapter that tries mainly to afford information (i.e. descriptions and explanations) about the target setting and population. It also portrays the methodology including the design of action research; the procedures of data collection; and the instruments used for collecting data including learner autonomy scale, participant observational checklists, reflective journals, peer observation and teachers' interview.

Analysing the collected data is an important part of any research project. Based on the descriptions provided in the third chapter, chapter

four is devoted to the treatment of the obtained data both quantitatively and qualitatively in an attempt to answer the asked questions set out at the beginning of this investigation and to enhance the practicality and reliability of the results.

The fifth chapter suggests a set of reflections about techniques and strategies used to better learners' autonomy in CALL laboratories proposing a state-of-the-art methodology related to designing an autonomy supporting lab-based courses to EFL learners. It also aims at providing teachers with innovative ways of encouraging learners' self-directedness in a more relaxing, motivating and non-threatening atmosphere for learning. In a number of stages, the investigator has endeavored to introduce some suggestions and recommendations that may help both educational institutions and CALL teachers to come across or reduce the difficulties identified in the fourth chapter.

The final chapter of the current study provides a summary of the most important findings and discusses the implications, in addition to proposing a number of recommendations and suggestions for further research.

Chapter two

A Critical Review of Relevant Literature

CHAPTER TWO

A Critical Review of Relevant Literature

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2.2. INTRODUCTION

Once consulting the history of foreign language pedagogy, one may assume that teachers were most of the time concerned with the various range of approaches and methods rather than the amount of responsibilities that teachers and learners have to take in charge in the educational setting. Nonetheless, a central problem worth raising in the present work is allied to the possible relationship between the teacher's critical reflective practice, CALL and learner autonomy.

The concept of learner autonomy in learning a foreign language has dominated specific areas of research in many fields such educational linguistics, educational psychology and TEFL. It is evident that the appearance of communicative language environments supported by computers has introduced a thorough transformation in the roles given to teachers and learners. This shift of responsibilities has reshaped the learners' roles in the classroom, the fact that decreased the amount of power and authority that characterized the traditional classroom settings. The role of the learner in such autonomy supporting language laboratories is, then, to be an active participant who is stimulated by computers to become more engaged in the process of learning through a number of interactive activities carefully designed by the teacher. Therefore, it is specifically proposed in this study that the teacher has to become a critical thinker about his/her practices in the classroom to benefit from the premises of CALL to encourage learner autonomy.

The purpose designed to this chapter is multifarious: firstly, to select the relevant literature to the study; and secondly, to seek for parallel proceeding studies for the sake of comparing the findings of the present study with the already realized findings attained by other researchers. In other terms, this chapter aims to present a critical analysis of the relevant body of literature by highlighting the key terms used, such as the major philosophies related to learner autonomy, and the major premises of CALL

as an innovative pedagogical solution to the problem of learner autonomy. Thirdly, it introduces the concept of teacher's critical self-reflection as a strategy that may help the teacher's consultation of the degree to which he/she encourages learner centeredness, i.e., the learners' degree of autonomy while learning through CALL.

2.2. A CRITICAL REVIEW OF RELEVANT LITERATURE

As a profession, teaching is considered as an intricate demanding and highly skilled activity that entails a significant volume of challenges and decision-making. For this reason, it is required from teachers to utilize different approaches if they wish to develop their teaching profession. As language teachers, sometimes a feeling of dissatisfaction comes to our minds that our presentation of the instructed material was not successful due to a number of reasons, such as inconsiderate planning, imprecise preparation and incomplete knowledge of the subject.

As a result, teachers often try to find out answers to a variety of questions that dominate their minds like, "where is the problem?" is it associated with the teacher's performance? Or is it allied to the teacher's managerial skills? Is it related to the learners' motivation? Or is it due to other influencing factors? Reflective teachers use their critical thinking skills to reflect upon their practices and seek for answers to those questions for the development of their teaching profession (Moreno, 2010). Hence, a great deal of studies have reported advantageous effects of fostering a "reflective stance" in teachers (Bean & Zulich, 1989, 1993; Bolin, 1988, 1990; Pollard, 1996). According to Schön, the emphasis on reflective practice in teaching is actually a focus on "thinking about thinking. Researchers describe expert teachers as having a disposition toward reflection, which is defined as "continuous learning through experience" (qtd. in Sternberg and Williams 15: 2009)

Recently, a significant amount of interest has been given to the concept of "reflective teaching practice" and its role in the process of developing

expert teachers. It is considered by Moreno (2010) as a professional development-thinking tool by which teachers use new classroom problems as opportunities to enlarge their knowledge and competence. Learners' autonomy in computer laboratories is considered as a one of the issues that may be assessed through teacher's reflective practice.

Previous studies within the same area of investigation may be displayed in the following table.

Broady, E. & Kenning, M. M. (Eds.). (1996a)	Promoting learner autonomy in university language teaching
Benson, P. & Lor, W. (1998)	Making sense of autonomous language learning: Conceptions of learning and readiness for autonomy.
Brookes, A. & Grundy, P. (Eds.). (1988)	Individualization and autonomy in language learning.
Richman, C. K. (2004)	Relationship of learner autonomy and computer-based education
Rowntree, D. (1994)	Preparing materials for open, distance and flexible learning
Benson, P. (2004)	Autonomy and information technology in the educational discourse of the information age
Esch, E. (1996)	Promoting learner autonomy: Criteria for the selection of appropriate methods
Garrison, D. R. (1992)	Critical thinking and self-directed learning in adult education
Guillot, M. N. (1993)	Computer information systems and learner independence
Murray, G. & Kouritzin, S. (1997)	Rethinking second language instruction, autonomy and

	technology
Vieira, F. (1997)	Pedagogy for autonomy: Exploratory answers to questions any teacher should ask
Chapelle, C. & Mizuno, S. (1989)	Students' strategies with learner-controlled CALL
Hoven, D. (1999)	CALL-ing the learner into focus: towards a learner-centered model
Lewis, H. A. (1978).	A teacher's reflections on autonomy
Blin, F. (1999)	CALL and the development of learner autonomy
Corder, D. & Waller, G. (2006)	Using a CALL package as a platform to develop effective language learning strategies and facilitate autonomous learning
McKee, J. (1996)	Independent learning and the computer
Reinders, H. (2006)	Supporting self-directed learning through an electronic learning environment
Shield, L., Weininger, M. J. & Davies, L. B. (1999a)	Constructivism and developing learner autonomy for technology-enhanced language learning

Table 2.1. Selected Early Studies

Throughout the aforementioned table, one may deduce that these studies emphasized the role of CALL and other e-learning models in fostering EFL learners' autonomy, and they shed light on the role of teacher's critical reflection in promoting self-directed learning. Therefore, the present investigation is set out to reinforce the results of the previous studies, which found that learner autonomy might be strongly promoted in

technology-enhanced environments such as CALL. Based on their findings, the present study will attempt to research possible relevance of teacher's reflective practice in creating autonomy supporting CALL environment. It problematizes, how the teacher's reflective practice may be useful in developing appropriate actions for supporting learners' autonomy in CALL laboratories. However, before investigating such relevance, it would be wiser to highlight some of the discrepancies in computer assisted autonomous language learning.

2.3. THE ROLE OF AUTONOMY IN FOREIGN LANGUAGE LEARNING

Autonomy in learning refers to students having control over their learning in and outside educational settings individually and cooperatively. For language learning, perhaps, it is as Benson suggests, "autonomy in language learning about people taking more control over the purposes for which they learn languages and the ways in which they learn them" (1, 2006).

As it is clarified by Little (1991), the concept of language learner autonomy that is considered as a pedagogical achievement has become a "buzz word" in foreign language teaching literature. Several practices, such as Leni Dam and Hanne Thomsen in their English language classrooms in Denmark (Dam 1995, 2000, Thomsen 2000, 2003), have been devoted for the applicability of learner autonomy in various educational contexts. Such a practice is among other examples that pushed Little to argue for the idea that learner autonomy is real and not distant goal.

Henri Holec has first elaborated the concept of learner autonomy in foreign language education in a report entitled "*autonomy and foreign language learning*" published by the Council of Europe in 1979. Holec (1981) argued that autonomy is a necessary condition for a successful language acquisition process. It started to attract language teachers' interest

as foreign language pedagogy shifted to the communicative approaches, which encouraged students to contribute in their learning.

Nonetheless, recent years have witnessed much more interest in the concept of learner autonomy in the field of language education. Examples in this concern may include, Benson, 2003; Hurd and Murphy, 2005; Lamb and Reinders, 2008; Little, 2001; and White, 2003. Several researchers have argued that autonomous learning is more effective to make use of all the accessible resources internally and externally. Moreover, other arguments are set in favor of creating a sense of autonomy in language learners. Thus, Benson (2000) has considered autonomy as a human right.

Accordingly, in order to clarify more the role of autonomy in foreign language learning which is interpreted in various ways, the next section provides a detailed overview of the concept of autonomy itself in addition to some theoretical reasons for emphasizing its significance in EFL classrooms.

2.3.1. Learner Autonomy Defined

By the early 1980s, the field of foreign language education has witnessed the appearance of the concept of learner autonomy, nonetheless, its fundamental principles are said to be old traditions in humanistic philosophy and education. Holec's work for the council of Europe is considered as the starting point for language educators' work in the area. According to Holec, autonomy which means the ability of taking charge of one's own learning implies:

- to have, and to hold, the responsibility for all the decisions concerning all aspects of learning, i.e.:
- determining the objectives;
- defining the contents and progressions;
- selecting methods and techniques to be used;
- monitoring the procedure of acquisition properly speaking (rhythm, time, place, etc.)

– evaluating what has been acquired. (Holec, 1981: 3, qtd in Knapp and Seidlhofer 2009: 373)

Benson (2007) has considered this wide-ranging definition as the most cited one in learner autonomy research. In fact, Holec's (1981) definition contains four main features. First, autonomy is manifested as an ability in the learner, and not the process. Second, this ability is not innate or in-born but assimilated through methodical and purposeful learning process. Third, it maintains a potential capacity in the learner to experience a learning activity, and not a certain behaviour in that activity. Fourth, the learner is responsible for the decisions taken in all the facets of the learning situation, for respectively (N.T.Nga, 2014).

The present discourse on autonomy is highly informed by varied components of the European humanistic philosophy, anthropological theory, critical education and psychology. Accordingly, Legenhausen states, "learner autonomy must be seen as a highly complex construct whose systematic description can be approached from various perspectives" (379: 2009). Legenhausen (2009) has further introduced Benson's (1997) three basic dimensions of autonomy: the technical, political and psychological. As for the technical version of autonomy, learners are able to direct their own learning outside educational settings. The political view of learner autonomy is somehow complicated in its nature because it is closely related to the philosophical perspectives. It is concerned with the tension between restrictions enforced on autonomy such as curricular guidelines and the freedom of others on the one hand, and individual control over the learning content in relation to personal objectives on the other hand. The psychological dimension of learner autonomy is thoroughly associated with one's willingness for taking responsibility for learning.

Other definitions, however, have replaced words as 'ability' and 'take charge of' by other terms as 'capacity' and 'responsibility'. The best example is Little's conceptualization of the notion of learner autonomy

Autonomy is a capacity– for detachment, critical reflection, decision-making, and independent action. It presupposes, but also entails, that the learner will develop a particular kind of psychological relation to the process and content of his learning. (1991:5)

In fact, autonomous language learning is generally given a great worth especially in western educational systems. This learning trend has been stimulated by the writings of the 20th century educators and psychologists, among them: John Dewey, Carl Rogers, Lev Vygotsky and Paulo Freire. They all offered different convincing factors for the promotion of learner autonomy. Trinh (2005) contended that the most important definitions to learner autonomy constitute four main factors that are related to learners, namely cognitive factors, metacognitive factors, affective factors and social factors.

2.3.1.1. Cognitive Factors

Having the capacity to control life experiments and exigencies requires from the learner to develop first certain cognitive abilities such as self-awareness and self-determination. As it is already quoted, Holec's (1981) view of the concept is considered as one of the strongest definitions that relate to cognitive arguments. In a common view with Holec, Little's (1991) definition views autonomy as a capacity for detachment, critical reflection and decision-making. Certainly, thinking critically and making decision ascertain the learner's awareness about his own learning (Bassou, 2014).

Accordingly, Little's definition stresses the role the individual's awareness which would allow him/her to engage actively and creatively in the shaping of the learning process and thus to become a responsible member in the educational setting.

Moreover, autonomy is among the cognitive constructs that are crucial for increased motivation. As a cognitive perspective on motivation, the self-

determination theory advocated by Edward Deci and Richard Ryan emphasizes the role of the internal conditions in enhancing students' motivation to learn. It proposes that increased motivation requires the satisfaction of three psychological needs, including: autonomy which incorporates the student's need to feel free from the external control that may hinder his/her behaviours; competence or the need to feel capable or skillful, and relatedness, that is, the need for the feeling of affiliated and engaged with others (Yaiche, 2013).

Motivation is regarded by Murray et al. as, "a dynamic force involving social, affective and cognitive factors manifested in desire, attitudes, expectations, interests, needs, values, pleasure and efforts" (2011: 63). This internal dynamic is enhanced when students reach a level of autonomy, responsibility and affiliation while undertaking learning tasks. Accordingly, the cognitive view of motivation proves, once again, the significance of promoting learner autonomy.

2.3.1.2. Metacognitive Factors

After Holec's influential definition, autonomy in language learning has greatly emphasized learners' capacity for taking informed decisions about their own learning. Smith (2008) considers the term 'capacity' as synonymous with 'competence', however Sinclair (2000) proposes that capacity for autonomy can be hypothesized in terms of learners' knowledge about learning. He further argues that capacity for autonomy in language learning can be classified as a metacognitive knowledge of self as learner (Le Quynh, 2013).

Definitions highlighting metacognitive factors also include the one of Little (1991) in which he contends that autonomy is a capacity that not only presumes, but also requires from learners to grow a specific genre of psychological relation to the process and content of their learning. However, in order for this capacity to build autonomy in the learner, it has to embrace metacognitive learning strategies, including planning, monitoring and

evaluating of learning experiences involving both the content and process of learning.

Consequently, the progress of learner autonomy is intertwined with the progress of self-regulation skills. In this sense, metacognitive awareness is a requirement that has to be fostered by helping the learner to develop critical qualities about his/her learning. Legenhausen (2009) has highlighted a number of features that explain as to what it means to be an autonomous learner. These features reveal partially the results of research on 'good language learner' done by Naiman et al. 1995. In the third feature, Legenhausen contends, "have developed a metacognitive awareness of what the learning undertaking implies" (2009: 387).

Similarly, Wenden (1991) strongly emphasized learners' metacognitive awareness as it is responsible for how they reflect on their learning and how they recognize that they practiced efficient learning experiences. Therefore, supporting the shift from dependence to autonomy is the teachers' principal task as explained in Holec's (1981) seminal definition. This transition can take place only if learners' capacity for self-management is addressed.

2.3.1.3. Affective Factors

Psychologically speaking, the learning process is improved when students hold the capacity to take charge of their own learning due to the cognitive, social and affective features involved in the process (Dickinson, 1987). In addition to the cognitive-focused definitions, the concept of learner autonomy entails also affective factors such as motivation, attitudes, interests, willingness, and self-confidence (Trinh, 2005).

Hsu (2005) posits that one of the most affective factors for increased autonomy is willingness which is in turn a significant construct in intrinsic motivation, positive attitudes and beliefs. This view is, indeed, dealt with in Dam's definition (1995, 1)

Learner autonomy is characterised by a readiness to take charge of one's own learning in the service of one's needs and purposes. This

entails a capacity and willingness to act independently and in co-operation with others, as a socially responsible person.

According to Deci, autonomy is a basic human need that is necessary for intrinsic motivation. This type of motivation indicates a desire or a tendency to energize attention and interest in a particular manner that originates from the student himself or herself. In this way, intrinsic motivation is concerned with the students' behaviours that are performed as a result of the student's (1) natural feeling of curiosity, that is, a need to know about or discover something; (2) desire to engage in an activity for the sake of participating in and completing the task; (3) satisfaction of an inner drive, and (4) interest in a subject matter (Dörnyei, 2001).

Byram (2000), in turn, asserts that learner autonomy merges between the metacognitive and the affective domains. Pedagogical considerations through which autonomy can be fostered pay considerable attention to the metacognitive process of planning, monitoring and evaluating of the learning performance and the evolution of the learning process. Yet, simultaneously, the learner is engaged affectively because learning is constantly assessed and reflected upon by learners in terms of needs, interests and capacities. Henceforth, metacognitive skills are central to the development of learner autonomy that is also significant for willingness, interests and needs.

2.3.1.4. Social Factors

The Bergen definition of learner autonomy can be considered as a socially-focused definition that emphasizes the psychological features with a necessity for placing autonomy in a social learning context.

Learner autonomy is characterized by a readiness to take charge of one's own learning in the service of one's needs and purposes. This entails a capacity and willingness to act independently and in cooperation with others, as a social, responsible person. An autonomous learner is an active participant in the social processes of learning, but also an active interpreter of new information in

terms of what she/he already and uniquely knows. (Trebbi, qtd. in Legenhausen: 2009: 380)

Moreover, Vygotskian perspectives that are concerned with the role of discourse in learning and the development of autonomy assume that language constitutes both external social processes and internal cognitive processes. These perspectives further argue that the progress of advanced cognitive process is a result of the internalization of external communicative speech. This progress takes place in the Zone of Proximal Development (Benson and Lor, 1998).

ZPD is one of the major ideas proposed by Vygotsky. It includes the range of tasks that are difficult for a learner to master without assistance, but that can be learnt with the guidance and help of teachers or members who are more skilled (Salkind, 2009). Benson and Lor (1998) argue that throughout this process of collaboration, the learner internalizes meanings acquired from linguistic interactions. The directive communicative speech provided by others is then transformed into self-directive inner speech. According to Vygotsky, directive inner speech which is the result of social collaboration is a central internal mechanism to autonomous learning. Hence, autonomous learning is linguistically and socially mediated.

To sum up, modern pedagogy explicitly intended to promote learner autonomy which involves abilities that can be developed by educators through addressing a number of dynamic factors including: cognitive, metacognitive, affective and social, as it has been mentioned. Therefore, it is essential, in this research work, to reflect for action in order to design an action plan including all the four factors that will constitute a framework for a checklist design through which the teacher's practices for autonomous CALL will be analyzed to reflect up on.

2.3.2. Theoretical Perspectives on Autonomous Learning

Foreign language pedagogy has witnessed a general agreement on the value of autonomy. It is conceived by researchers and educators as a skill that every successful learner holds. In fact, learning theories do play a

significant role in the enrichment of the present critical understanding of autonomous language learning and provide teachers with alternative solutions to problems.

Little (2002a) strongly believes that the promotion of learner autonomy requires from teachers to re-think and reflect on their pedagogical practices constantly. According to this statement, teachers should take a dynamic critical attitude toward their practices, have a permanent learning consciousness, consider the promotion of learner autonomy as their goal and incorporate the principles proposed by alternative theories and perspectives on how learning occurs in educational settings.

Fortunately, under the influence of learning perspectives, including: cognitive, humanistic and constructivist theories, autonomy has achieved impetus in modern pedagogy.

2.3.2.1. Cognitive Perspectives

The cognitivists view learning as an extremely internal process, which entails the individuals' cognition, that is, perception, taught, memory and ways of processing and structuring information. In this view, Faigan offers the following definition, "learning is a sequence of mental events or conditions leading to changes in the learner" (qtd. in Aggarwal, 2005: 183).

On autonomy, the cognitive perspective proposes that learners' autonomy guides their thought processes. John Dewey (1933), the famous American philosopher, claims that experiencing accounts the most for the development of the students thinking and reasoning. His major contribution to the concept of autonomous learning lies in the fact that the development of reflection, which is an element of cognitive psychology, entails the development of a set of capacities including introspection and retrospection, open-mindedness, and willingness to take responsibility for learning, decisions and actions (M.J. Raya and F. Vieira, 2015).

According to Kareva (2015), the cognitive revolution in educational psychology sets the stage for autonomous learning due to its two essential

concepts: metacognition and self-regulation. As for metacognition, Brown P.C. (2002) asserts that it is concerned with learners' acquisition of a number of strategies for learning, remembering, understanding and problem solving. Self-regulation on the other hand is related to learners' capacity to understand how they learn in order to develop strategies for realizing self-control over the cognitive processes that are critical components in autonomy cognitive-based definitions.

Indeed, strategy development is conceived by many authors as a leading mechanism for promoting learner autonomy. Oxford (2003) defines learning strategies as “specific actions, behaviors, steps, or techniques – such as seeking out conversation partners, or giving oneself encouragement to tackle a difficult language task – used by students to enhance their own learning” (qtd. in Kareva 2015: 240). Oxford (2003) further explains that a strategy is considered as a tool for self-regulation if it is intentionally selected by the learner.

In this sense, Oxford (2003) has elaborated six types of strategies: cognitive, metacognitive, memory-related, compensatory, affective, and social. cognitive strategies include: reasoning, analysis, summarizing, synthesizing and outlining. The latter are all mental activities used by the learner to deal with learning materials in a direct way. Metacognitive strategies are linked to the identification of learning styles, preferences and needs; therefore they may influence the use of cognitive strategies while completing learning tasks. Memory-related strategies aid language learners to make a link between what they have learnt and the newly required item to be learnt; however those strategies are not responsible for deep understanding. Compensatory strategies denote the act of guessing meanings from the wider context in listening and reading activities through the use of synonyms and paraphrasing in order to cope with missing knowledge. Affective strategies entail the use of positive self-talk and deep breathing to deal with anxiety and stress. As for the last cluster which is maintained in the social strategies, learners are required to ask questions to

get verification or explanation and interact with native speakers to understand the target language culture.

To sum it up, part of promoting learner autonomy encompasses acknowledging and respecting the various learning strategies. It is based on these elements of cognitive psychology that learner autonomy develops.

2.3.2.2. Humanistic Perspectives

The humanistic theory of learning is deliberated as holistic perspective that underlines both affective and emotional processes of an individual learner. In educational settings, humanism pressures the analysis of learners' behaviours, thoughts and feelings for understanding the nature of human learning. The humanists' interest centers on students' self-awareness in order to investigate their capabilities and potentials when making choices. They consider human choices, creativity and self-actualization as chief areas to be investigated in the educational settings (Schunk, 2012).

The most prominent theorists who have enthused and influenced the expansion of humanistic psychology are Abraham Maslow and Carl Rogers. They both stressed people's endeavors to become self-actualized i.e., reaching one's full potential as a human being. As humanist, Maslow has proposed a hierarchical set of needs that are common in human beings regardless of their race and culture. These needs must be satisfied to achieve the top of the hierarchy (Aggarwal, 2005). His theory postulates, "all human beings, regardless of culture, have basic needs that can be arranged on a hierarchy according to prepotency or pressing drive for gratification" (Salkind, 2009: 633).

The needs are categorized in five basic classes. The first level contains the physiological needs such as hunger and thirst. In the second rank, Maslow places the safety needs like need for security and protection from pain and fear. Then, the needs for love and belongingness are located in the third level. Competence, approval and recognition needs are allied with esteem needs in the fourth level. Finally, the need to realize one's potential and capabilities, and gain understanding and insight i.e., self-actualization is

placed in the top of the pyramid. When the basic needs are gratified learners will directly focus on achieving the other types of needs (Dörnyei, 2001). In this manner, Schunck (2012) hypothesizes that autonomy is a characteristic of a self-actualized learner.

Rogers's humanistic theory perceives the process of learning as the continuous active participation in the classroom complemented by the students' belief that learning is important. His basic contribution lies in his reconceptualization of teachers' roles in the classroom. Rogers' view of the role of the teacher as a facilitator is vital to classroom-based approaches to autonomy in foreign language education (Benson, 2001).

Carl Rogers contended that learners' behaviours are basically controlled by their perception of both personal and environmental factors. Therefore, what is required according to Rogers is the creation of a proper learning context where teachers are facilitators of the learning process through the establishment of interpersonal relationships with students, and the provision of resources and encouragement. If these conditions are appropriately created learners will in fact learn anything they conceive as useful or meaningful (Brown, D. 2000).

On the whole, Rogers's assumptions focus largely on empowering learners to strive for challenges in order to achieve self-actualization. He further argues that meaningful learning has to be self-initiated by the learner (Raya and Vieira, 2015).

All in all, the major contributions of humanistic psychology to autonomous learning can be summarized in a number of principles. First, the learners' ability to select the studied material is central to their motivation to learn it. Second, learners' interests in learning should be sustained through giving them directions concerning how they can learn on their own. Third, learners' feelings and the target knowledge are given equal recognition. Fourth, learning is attractive and enjoyable when learners feel secure in a stress-free atmosphere.

Finally, one may deduce that providing learners with opportunities to direct their own learning, in selecting what they learn and, to a certain level, when and how they learn it, is certainly one of the basic principles offered by humanistic psychology.

2.3.2.3. Constructivist Perspectives

Dissimilar to the previously mentioned perspectives, constructivism focuses on the individual as physical, cognitive, social and emotional being. One of the basic tenets in constructivist education lies in the fact that human beings are dynamic learners who construct and conceptualize their own understanding of knowledge as a consequence of their own experiences with others and the environment (Schunk, 2012). Seiffert and Sutton define it as, “a perspective on learning focused on how students actively create (or “construct”) knowledge out of experiences” (2009: 33).

As an epistemology, constructivism is thus, a philosophical explanation about the nature of learning. The constructivists posit that teaching and learning experiences should be structured to challenge learners’ thinking and therefore they will be able to construct new knowledge. Consequently, Little’s (1991) idea that all successful learning is in the end autonomous, is applicable to the basic principle which argues that autonomy in language learning has borrowed from constructivism.

In the same line of thought, contemporary research has revealed that the way a foreign language is learnt, does not entail the internalization of learning tasks, but depends on what learners encounter as valuable in the classroom setting. Hence, learning is facilitated when teachers create a problem-solving environment where learners are encouraged to express their thoughts, beliefs and ideas freely. Jerome Bruner advocated for discovery learning in which teachers construct an educational setting that allow learners to question, explore and experiment. In this context, Bruner argues, “...students would better learn and retain concepts they discover on their own instead of passively through rote learning and lectures.” (qtd. in Bassou 26:2014)

Perspectives on knowledge construction differ as to how much inspiration cognitive and social aspects have on learners constructions. Consequently, there are two constructivist perspectives: cognitive constructivism and social constructivism. The first perspective, principally influenced by the work of Jean Piaget, focuses on the learners' use of cognitive capacities to construct knowledge in their minds. The second perspective which is based on the work of Lev Vygotsky postulates that learners construct knowledge when they are engaged in social interaction about mutual problems or tasks; therefore, cooperative learning is recommended as a teaching method to promote collaboration and social learning (Moreno, 2010).

Bruner's pedagogy has been stimulated largely by Piagian and Vygotskian principles to the extent in which a new concept, named as scaffolding, derived from Vygotsky's ZPD, has been introduced. In fact, scaffolding indicates the momentary assistance teachers' offer to learners to accomplish a particular assignment until they would be able to do it alone (Salkind, 2009). In this way, what can a learner do collaboratively today; he/she can do it autonomously tomorrow. Subsequently, one may assert that constructivist theorists advocate for learner autonomy as a basis for learner-centered classrooms.

As a psychological and philosophical perspective that has been applied to education, constructivism focuses on learning rather than teaching, learner involvement and autonomy in the learning process (Wang, 2011). Consequently, Benson asserts that, "if learning is a matter of the construction of knowledge, effective learners must be cognitively capable of performing actions that enable them to take control of their learning" (2001: 40).

Nonetheless, constructivism has valuable implications to autonomous learning, and some autonomy supporting principles proposed by educational researchers in other theoretical traditions fit well with constructivism. For instance, the constructivists strongly acknowledged the

importance of the organization and structure of the learning environment to promote both autonomy and learning, that is, grouping students for instruction, utilizing the mechanism of rewards, the timing of lectures, providing updated materials for learning and other aspects of classroom management, as it is illustrated in the following quotation,

Classrooms include other factors that can affect learners' perceptions, motivation, and learning. Some of these can be summarized by the acronym TARGET: Task design, distribution of Authority, Recognition of students, Grouping arrangements, Evaluation practices, and Time allocation (Schunk, 2012: 255)

By task design, the constructivists require from teachers to embrace learning experiences that fit students' interests, needs and goals. Distribution of authority refers to the degree to which learners demonstrate autonomy and control over learning experiences. Teachers may promote learners' distribution of authority by offering choices and giving them the opportunity to make decisions. In fact, offering choices promotes learners' autonomy. Recognition, which implies the use of rewards and incentives, has an immediate influence on learners' motivation to learn. Intended for addressing learners' ability to work with others, teachers can arrange learners in groups to encourage cooperation and interaction, and consequently enhance their autonomy. Whilst for learning evaluation, teachers use techniques to assess learners' progress and mastery such as providing them with opportunities to evaluate their work and improve it, or using different forms of evaluation as grading. Finally, time allocation is an important part of classroom management. Providing learners with choices over their time management is an effective strategy for enhancing motivation since it can help them to reduce their high levels of anxiety (Yaiche, 2013).

Other implications to autonomous learning may include Pritchard and Woollard strategies of a constructivist teacher. They both stress that the

constructivist classroom must cope with certain effective and productive strategies to encourage learning. These strategies are summarized as follow:

- Fostering learners' autonomy and creativity.
- Boosting learning through using learners responses and taking them into consideration.
- Seeking for learners' understanding of new concepts before teaching them.
- Engaging learners in dialogues with each other and the teacher.
- Encouraging learners to reflect and ask thoughtful, open-ended questions.
- Putting learners in experiences that may contain contradictions to encourage discussion. (Pritchard and Woollard, 2010).

As a result, constructivism has re-conceptualized the notion of teaching and the roles that teachers are to perform, and thus, invite teachers and educationalists to reflect on their practices in the classroom.

2.4. INNOVATION AND CHANGE IN FOREIGN LANGUAGE EDUCATION: THE INCLUSION OF COMPUTER LABORATORIES IN EFL EDUCATION

Throughout the exploration of EFL teaching in Algerian universities, it is noticeable that the teaching practices have witnessed innovation and change. English classrooms are very different from that of the nineties and even the very early years of the 21st century. At this stage, primary resources and physical materials have been developed to include computer laboratories with specific designed software packages for listening and speaking activities.

Indeed, by innovation and change, it is meant the planned adaptation of updated technologies that intersect with foreign language teaching. In practice, there have been many aspects of innovation and change rather than computer laboratories. Throughout the last decade, there has been a trend for innovation in language education that entails incorporating certain practices that help teachers to become reflective practitioners. The goal is to

encourage teachers to reflect on their practice through working with colleagues. Indeed, reflective teaching has become a slogan that is included in teacher education (Raya and Vieira, 2015).

Other aspects of innovation entail the employment electronic materials such as the data show, smartphones and computers in addition to internet access. However, the quickly changing nature of technology makes it difficult to keep up with. Over the years, technologies that intersect with foreign language education have witnessed radical changes. These changes have significantly affected professional practices.

Recently, EFL education has announced an urgent need for setting up autonomy-enhancing learning environments that adopt information and communication technologies (ICT) to move learners out of inactive learning modes into highly engaged learning. Beatty and Chapelle argued that using ICT in the classroom enhances language acquisition and elicits higher levels of involvement and motivation (Braden, 2009). Similarly, Lytras et al. believe,

ICT utilization in this educational environment enables students to be more active, enhances their motivation, and improves their understanding, as well as cultivating their ability to retain information longer and enjoy classes more (2010: 510)

Similarly, Blumenfeld et al. (2000) suggested that instructed materials could be carried out through innovative ways including the design of an enjoyable learning environment in which developing technology such as computer-based materials are available.

Actually, the application of computer-based materials in language education is commonly referred to as CALL. According to Beatty (2010), this massive move towards CALL is due to a variety of factors including its autonomy supporting nature,

Autonomy is fostered by CALL in different ways. CALL can present opportunities for learners to study on their own,

independent of a teacher. CALL can also offer opportunities for learners to direct their own learning. (Beatty, 2010:11)

To put in a nutshell, it is generally expected that the problem of autonomy in EFL classrooms can be solved through the provision of technology-enhanced learning environments where CALL resources are used as essential tools by teachers who are in turn expected to be reflective practitioners. At this level one may question: how can research on EFL teaching practices inform the design of an autonomy supporting CALL?

2.5. COMPUTER ASSISTED LANGUAGE LEARNING (CALL)

Technology in language education has never dominated EFL researchers' enquiry as it is doing currently. Traditionally, EFL teachers' practices were largely centered on the employment of textbooks, copybooks, pens and blackboards in a restricted classroom environment. Yet, the constant advancements of technological tools and the introduction of ICT devices have progressively transformed the form of educational settings. As a result, EFL classrooms have extended to introduce e-learning. The latter is a method that entails learning through electronic resources in addition to various technological devices such as computers.

Generally, the employment of computers for instructional commitments and for English language education in particular remains a new field of study due to the rapidly changing nature of the technological advancements that everyday introduce innovative instructional possibilities. In this context, there is a definition of CALL that accommodates its changing nature, "any process in which a learner uses a computer and, as a result, improves his or her language" (Beatty, 2010: 7). Though broad, this definition covers an extensive continuum of present practices in language education at the computer. Actually, using computers as fragments of the linguistic course is referred to as CALL; that is an acronym stands for Computer Assisted Language Learning. Brown D. has defined CALL as, "computer programs designed especially to teach language." (qtd. in Murray, 2007: 748).

Materials for CALL entail those resources that are purpose-made for language learning in addition to those which adjust current computer-based materials. The early introduction of CALL materials in educational settings has passed from a group of learners in front of one device attempting to fill in a gapped passage, to communication between learners through computers, to network multimedia software in which learners can listen to authentic language situations (Murray, 2007). Therefore, one may deduce that CALL is an unstructured discipline that is constantly evolving in terms of both pedagogy and technological developments in hardware and software.

In reality, the quick emergence of computers in educational institutions and at home has vividly transformed the method teachers teach, the style learners learn and the mode administrators work. In this manner, McClintock illustrates, “the advent of computers and computer-literate children produced many changes in the teaching and learning strategies used by educators.” (qtd. in Moreno, 2010: 538). As consequences, multimedia computing (as its name implies, it incorporates a range of media including text graphics, animation, video, sounds and photos in one demonstration), the Internet, and the World Wide Web (WWW) have come to be new pedagogical techniques in foreign language teaching (Brett and González Lloret, 2009).

Originally, CALL laboratories were built for listening/ speaking practices. Nonetheless, the development of technologies has made CALL an extensive teaching approach that includes the utilization of many resources. For instance, the use of the internet for pedagogical purposes like the access to multimedia resources and online dictionaries; networking tools such as email, chat rooms, and audio/videoconferencing; explicit software applications deliberated for language learning; digital audio and video materials; and even mobile telephones; all of these intend to promote and supplement the language learning process (Brett and González Lloret, 2009).

In the same line of thought, Warschauer contended that CALL is an operative method for the delivery of learning materials by arguing that it can empower learners to learn, present original learning opportunities and afford a locus for collaborative identity creation (Murray, 2007). Similarly, Moreno (2010) is of the view that computer-based materials can be adopted for the presentation of language courses in a variety of ways. The internet, as an example, might be incorporated in order to enable learners to search their own interests. Another application of CALL is the use of word processors software such as Microsoft Word in order to provide learners who encounter difficulties in writing on papers with other possibilities.

CALL has become gradually integrated into research and practice of the basic skills of listening, speaking, reading and writing; and more detached areas of study, such as autonomy in language learning. For increased autonomy, CALL applications can achieve the premise of self-access learning by the use of computer tutors and other instructional programs that provide learners with the space to learn with varied scaffolding levels and choices.

2.5.1. The Development of CALL Pedagogy

Historically, foreign language pedagogy has witnessed a continuing evolution from behavioural to cognitive and constructivist perspectives of learning. Similarly, CALL as an area of scientific inquiry has evolved following the same paradigm movements in foreign language education (Brett and González Lloret, 2009).

According to, Beatty (2010) CALL is a young branch of applied linguistics that is still establishing its directions. Its brief history helped it a lot to be well-documented. Indeed, applications of technological advancements in language education are not new, and they have been used for decades. Computer-based resources appeared in the early 1960s, and the evolution of its applications in language classrooms is divided by Warschauer into three chief phases. Every phase resembles a specific

pedagogical perspective. This section reviews the early developments in CALL in addition to the use of CALL in the twenty first century.

2.5.1.1. Behaviouristic CALL

The 1960s have been marked by the earliest applications of computer technology in foreign language education with behaviouristic principles; particularly those derive from operant conditioning, where the learning of language was viewed as the acquisition of a set of habits that entail common vocabulary items, grammar rules, and phrases established by repetition. Consequently, language is best instructed through drilling, repetition and conditioning, i.e., training learners to alter responses as a reaction to the given stimulus (Blake, 2008).

B.F. Skinner the initiator of operant conditioning believes that stimulating learners' responses through reinforcement can be applied to a computer based approach named as programmed instruction. The driving force behind such a program is to help each learner to learn individually by receiving immediate feedback after each response (Moreno, 2010)

Throughout this phase, CALL applications such as programmed instruction required from learners to account or in more precise behavioural terms to respond to stimuli provided by the computer and to complete activities such as filling in gapped texts, matching sentences and answering multiple choice questions. Text reconstruction is one of the famous behaviouristic CALL activities in which learners are required to reconstruct a blanked passage by typing the omitted words. The common characteristic in all the mentioned activities is the provision of the immediate feedback that the computer is responsible for. Examples of the given feedback include, pointing out whether the answer is true or false. Besides, the computer may give feedback that is more sophisticated by illustrating the reason why the learner is mistaken (Dudency and Hockly, 2007).

Consequently, the 1960s to the 1970s era of CALL was commonly referred to as the text phase because of the nature of its learning possibilities. Accordingly, Delcloque postulates that most of the pioneering

learning experiences during behaviouristic CALL involved text manipulation on screen (Blake, 2008). These learning experiences have offered learners with both corrective and diagnostic feedback as a sort of positive reinforcement to stimulate their motivation to learn.

Another currently used educational software based on behaviouristic principles is drill-and-practice program. The latter introduces a set of questions or problems and expect from learners to solve them on their own while receiving immediate feedback (Moreno, 2010).

However, the advancement of CALL applications have stimulated its learning possibilities to move away from the narrow behaviouristic philosophies and activities in which the relationship between the learner and the computer is restricted to individual learner-machine interaction towards more innovative learning activities. The school of thought that is responsible for the movement is constructivism.

2.5.1.2. Communicative CALL

As a swing from behaviourism and its narrowing focus on behaviour change, language learning methodology shifted to the communicative approach that became dominant in the late 1970s and 1980s. This approach has transmitted language learning from the teacher's control to a more learner-centered. The advocates of the communicative approach encourage the practice of natural language situations in which learners are exposed to trial and error in a stress-free atmosphere.

The constructivist learning principles have largely influenced the communicative approach especially those stem from Vygotsky's social constructivism. Vygotsky maintained that learning occurs as a result of social interactions. In this manner, Brown D. says,

Social constructivist perspectives drew our attention to language as communication across individuals ... foreign language learning started to be viewed not just as a potentially predictable developmental process but also as the creation of meaning through interactive negotiation among learners (2000: 245)

In this sense, the dominant focus of communicative language teaching was given to meaning and the individual learner, not to the language itself. Introduced by Firth, Halliday, Wilkins and Sinclair, this approach emphasizes communicative competence, which is the capability to produce acts of communication appropriate to the situation. As a skill that has to be dealt with, communicative competence can be developed through the practice of natural language situations in which the importance is placed on fluency rather than accuracy; nevertheless, grammar has to be referred to implicitly within the context as some theorists acknowledged the importance of accuracy for communication.

Reflecting the communicative approach principles, and with the advent of Compact Disk Read-Only Memory (CD-ROMs) technology, CALL activities have consequently transformed. The use of CALL materials has been evolved from being a tool for individual learning to an assistant medium of general language skills practice in non-drill format. As a storage system, CD-ROMs had a more installed base in personal computers as they hold a small format. However, DVDs soon replaced CD-ROMs. The high storage capacity of DVDs made it possible for CALL to move from the behaviouristic textual exercises to more powerful computer-learning possibilities.

Furthermore, this phase witnessed the use of specific software packages to sustain learners' interest in a highly engaged environment with animation, sound, graphics and texts, (Brett and González Lloret, 2009). *À La Rencontre de Philippe* is the best example that engages learners in semi-authentic language environment. The fictional narratives provide learners with opportunities to discover documentary-style portrayals of reality. In this software, Philippe lost his apartment in the city of Paris and has to find another place to stay in. The learners' basic role revolves around helping the central character Philippe to find another apartment in the city. The task can be accomplished through using on-screen narratives and paying attention to written clues (Beatty, 2010).

Dissimilar to the former era, CALL applications are not only tools for language learning but a skill for autonomous language use as well. CALL programs allow learners to use the target language in a more authentic context. Macario, as another example, is an early videodisc program for teaching listening. The authenticity of this program lies in the fact that it was originally planned for use in non-educational purposes by narrative speakers of the target language.

However, this communicative phase of CALL was criticized for using the educational technological implications for more marginal aims rather than the fundamental aims of language teaching.

2.5.1.3. Integrative CALL

As technology progresses, hundreds of CALL programs have been introduced and its implications in the field of language education develop. Labelled as integrative, the third phase of CALL started in the 1990s. It has made specific endeavors to deal with the criticism made to communicative CALL through the integration of the general language skills (listening, speaking, reading and writing) into tasks or experiences. Indeed, CALL during this period has become an extensive field of scientific inquiry with various sub fields.

For this reason, Zhao (2003) and many others suggested the study of a unified field that would tolerate the evaluation of the effect of technology on language learning. Similarly, Chapelle (2003) proposed that instead of considering CALL as a single sub field in applied linguistics, a complete incorporation of technology in all areas of language learning would be significant to assess its usefulness. In this vein, Warschauer requested, “the truly powerful technologies are so integrated ... computers will have taken their place as a natural and powerful part of the language learning process.” (qtd. in Brett and González-Lloret, 2009: 354). In this vein, Brett and González Lloret (2009) greatly recognized Chapelle’s proposition of technology integration in all fields of language learning.

As a result, Stephan Bax believes that the 21st century is the period of integrated CALL in which numerical instruments for learning have become integrated fundamentals of foreign language curriculum (Thomas, 2009). As illustrated by Warschauer and Healey,

...integrative CALL ...seeks both to integrate various skills (e.g., listening, speaking, reading, writing) and also integrate technology more fully into the language learning process. In integrative approaches, students learn to use a variety of technological tools as an ongoing process of language learning and use, rather than visiting the computer lab on a once a week basis for isolated exercises... (qtd. in Donaldson and Haggstorm, 2006: 258)

The integrative stage of CALL countersigned the expansion of multimedia computing that embraces a mishmash of sound, graphics, text, and video offered in one computerized program intended to transfer CALL from its extremely individualistic usage to an assistive medium of learner-to-learner communication for which the label computer mediated communication (CMC) was created. Henceforth, this stage has been characterized by a swing in the use of computers, “computers evolved from containers of individualized input to tools for engagement in authentic discourse with other users of the language.” (Brett and González Lloret, 2009: 352)

Nonetheless, the application of CALL advancements did not follow the presented chronology. Murray (2007) and Beatty (2010) assume that even featured as integrative, implication of CALL advancements in the 21st century do not reflect this characteristic. Pedagogically speaking, the new and innovative did not always replace the old. As argued by Levy, “once new hardware and software have been introduced, language teachers are often left to learn to use new computer software on their own. Consequently, patterns of use are highly individualistic” (qtd. in Murray, 2007: 751). For instance, many current applications seem similar to visually stimulated gap-filling exercises. Accordingly, those patterns of use in nowadays’

applications of CALL reveal the features of its behaviouristic and communicative stages.

2.5.2. CALL Resources

Generally, CALL resources include the variety of electronic materials or tools that can teachers use as sources for language learning in order to create a technology-based environment that can promote learners' autonomy. Though these materials have been designed for use in diverse spheres but they are all adjusted for classroom education (Blake, 2008). Basically, foreign language electronic resources include; hardware, software applications, the internet and e-mail exchange.

2.5.2.1. Hardware and Software

As a device, the computer has two essential components namely hardware and software. Hardware is a label used to represent the tangible computer materials and equipment such as system unit, keyboard, mouse, audio speakers, microphone, webcam and printer. On the other hand, software applications refer to the processed programs. For example, word processing, which all computers are sold with, used to be the only way for learners to correct misspelt words by choosing from the offered corrections. Moreover, word processing programs are preset to afford grammar support. According to Moreno (2010), using written form applications offers learners with the opportunity to reflect on the language they are using, and thus be more grammatically exact in their explanations. In this vein Beatty (2010: 60) says,

Microsoft *Word* is increasingly multi-purpose. For example, it is commonly used by teachers (and sometimes learners) for creating semi-authentic learning materials featuring text, tables and illustrations as well as simple websites.

Rather than software packages for assisting learners' writing, there are other software applications such as internet explorer, Firefox, Windows Media Player, Adobe Reader and Flash Player that can all be used to assist learners' acquisition of knowledge and skills in nontraditional features.

2.5.2.2. The Internet

As a facilitative medium that can EFL learners use for communication and access to information. The internet provides both a vehicle and context for learning. In this concern, Chapelle says that, “The Internet connects learners to a wide range of discussions and information” (2003: 14).

Tim Berners, the inventor of the internet describes his invention as, “wide-area hypermedia information retrieval initiative aiming to give universal access to a large universe of documents” (qtd. in Pritchard, 2007: 14). Wide-area means the World Wide Web and hypermedia refers to a variety of media containing text, pictures, sound and video.

As a worldwide web, the internet is considered as a source of authenticity that offers real places and events; and most importantly real people to communicate with (Pritchard, 2007). Subsequently, Warschauer et al. state, “In our view, there are five main reasons to use the Internet for English teaching ... authenticity, literacy, interaction, vitality, and empowerment” (qtd. in Chapelle, 2003: 75).

For that reason, when using the internet, learners are anticipated to experience a sense of immediacy in acquiring universal information and control over information, which can often support their autonomy.

2.5.2.3. E-Mail Exchange

E-mail is one of the most popular uses of the internet that offered many possibilities to enhance learning. It has obtained an opportunity for distance fast communication that is commonly referred to as asynchronous communication. This form of communication can have good educational advantage. In education, e-mail is seen as a tool for communication between teacher and learners and for long-distance exchanges between learners in dissimilar settings.

Through e-mail, foreign language learners can communicate with teachers, colleagues and native speakers. Mails can revolve around tasks in which learners implore special information, share information about given assignments or submit thoughts and questions to a teacher (Beatty, 2010).

Therefore, Murray (2007) illustrates that researches have proved that learners using e-mails for communication in the target language are more excited to exchange messages and thus write more passages than on ordinary papers. Similarly, Wang (2011) argues that when using e-mails for communication learners ask more questions and make use of more language functions than do when writing on papers.

In an another study, Kern stated that exchanging e-mails between learners from different settings can result in valuable benefits of cultural historical knowledge in addition to enhanced autonomy (Warschauer, 2007). The employment of this medium of communication for educational purposes is, thus, advantageous for autonomous learning.

2.6. CALL PREMICES FOR INCREASED AUTONOMY

As a credible method that may develop language education, CALL has been recommended in foreign language classrooms in order to enhance learning. It is predicted that its attachment would bring about valuable benefits. In fact, some of these benefits stem from the general field of CALL such as access to information, whereas others are related to language learning but boosted through its incorporation like autonomy. "CALL approaches presuppose the merits of learner autonomy" Holland and Fisher (2008: 198).

Recently, Schwienhorst (2008) assumes that learner autonomy as a goal, a capacity or a learning/teaching agenda that can be promoted by CALL materials serves to support three different areas in the learner. Firstly, it promotes reflection, and greater linguistic, metalinguistic and metacognitive awareness of language learning. Secondly, it develops a communicator and collaborator learner who could communicate effectively in any situation. Thirdly, it serves to support a sense of exploration and experiment in the learner who is willing to develop learning agenda, take charge of his learning and hold responsibility for it.

As an area of scientific enquiry, autonomy has proved its significance for successful language learning. Additionally, its relevance to motivation in

particular has been underlined by the leading self-determination theory. The learners' ability for self-directed learning is manifested by their capacity to select resources and context of learning. According to Chapelle (2003), Neto and Brasileiro (2007), Holland and Fisher (2008) and Zhang (2012), a successful CALL application is awaited to foster autonomous learning. In this concern, Donaldson and Huggstorm argue, "the very nature of CALL facilitates opportunities for learner self-direction" (2006: 59).

Inherently, CALL applications are dedicated for greater autonomy as they are available beyond the classroom confines; especially for learners who want to extend their learning at any setting (Beatty, 2010). In view of that, operative CALL requires a teacher to create the optimum balance of approaches and resources to best address learners' interests, needs and goals that might include autonomy. This gives learners the prospect to match their learning needs to the instructed material that will necessarily offer them some autonomy in planning their learning path. In this manner, Yang and Yuen (2010: 05) postulate,

Teachers who teach with the computers seem to be able to better promote the emerging educational trends of collaborative (partnering) learning, cooperative learning, and autonomous (individualized) learning.

Often called self-managed learning, learner autonomy has rapidly evolved because of the inclusion of CALL into the language curriculum, Levy et al. (2011) support. They strongly urge teachers to take into consideration the executed teaching strategies while designing instructed materials supported by CALL materials in order to help learners to engage in the endeavor of foreign language learning.

Other pedagogical outcomes of CALL might include the immediate feedback given to learners. Depending on the nature of the activity, the computer-learning program offers two types of feedback: providing a model answer; or an explanation of why the learner's answer is mistaken. Its relevance to autonomy is clearly stated by Murray et al.

Feedback fosters learners' beliefs in their own potential and capacity for language learning, which in turn feeds into their capacity to take more responsibility for their learning and deal with factors negatively affecting their motivation (2011: 118)

Offering learners an assessment of how well they are performing helps them to grow metacognitive skills and reflect constructively on the areas that call for development. Therefore, if relevant feedback is considered while designing computer applications, CALL is more likely to result in enhanced autonomous learning.

However, the availability of CALL resources and the well design of its applications do not necessarily result in enhanced autonomous learning experience. Hence, for CALL to achieve its intended premises, it is specifically proposed in this study that teacher's reflective thinking is a fundamental practice for an autonomy supporting CALL.

2.7. REFLECTIVE TEACHING PRACTICES FOR AUTONOMY SUPPORTING CALL

In general, the reflective teacher is said to be self-critical and self-aware; frank about him or herself; and open to criticism. S/he is objective too; able to try different methods or techniques; motivated to improve learners' learning; and more excited to promote autonomous learning. Consequently, this research work presents and describes CALL laboratories in Naama university center with the objective of demonstrating how can teacher's critical thinking be used to support autonomous learning.

Reflective thinking is an educational aim that was reinforced by Dewey. It contributes to the individual's moral and intellectual development as it leads to changes in one's perspectives (Zaphiris and Zacharia, 2006).

Raya and Vieira (2015) postulate that the teacher's critical reflection on learner autonomy has come to be a buzzword in teacher education setting. Pedagogy for autonomy entails from teachers who are self-determined and enthusiastic to challenge traditions to become reflective autonomous experts

who are capable of taking a critical position towards situations and struggle for their own and their learners' autonomy.

2.7.1. Reflective Teaching Practice

Teaching and learning about teaching are two thought-provoking processes as they center on intricate, correlated sets of thoughts and actions. Hence, while teaching, there is not a sole method of accomplishing a task. The more skillful the teacher is, the more his/her understanding of the relationship between teaching and learning influences his/her practices and the more intentionally a teacher reflects on his/her actions. Due to the complexity of teaching and learning about teaching, teachers thinking about their practices evolved over the years to be an approach in pre-service teacher education. (Loughran, 2005).

Teachers' thinking about their practices reveals a commitment to develop their professional career and helps them to find out about the results of their actions in the classroom. Pollard (1997) has termed such a practice as reflective teaching that necessitates a set of qualities such as; open-mindedness, active involvement with goals and concerns of teaching, capacity to use methods of enquiry and most importantly the ability to employ self-reflection and peer collaboration (Hillier, 2005).

2.7.1.1. Reflection Defined

As a term, reflection derives from the Latin verb "reflectere" which means, "to bend back". It is an intricate and multidimensional term that means different things in different situations. This section summarizes different aspects of reflection in order to denote its role in teaching.

Generally, reflection means thinking about one's actions. It is a process that involves an ability to being changed, a desire to learn and a spirit of responsibility that stimulates the reflective individual to do the best. Although seems natural but requires challenge. Reflective teachers have to probe their practice with openness, whole heartedness, but most importantly with responsibility to search for the best path that leads to

improved learning. In this sense, teachers' reflection on their own practice is a key element of quality teaching (Jay, 2003).

Boud et al. (1985) conceptualizes reflection as a human activity that allows people to bring back their experience, think about it and evaluate it. They also view it as a capacity that is developed in stages within different people as it can be an ability that features individuals who learn effectively from experience.

The well-known theorist on the subject is Dewey (1910: 6), who defines reflective thinking as, "the active persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conscious to which it tends" (qtd. in Jay, 2003: 12). To clarify, Dewey views reflection as a purely conscious intentional process that is featured by evidence and prudence, and maintained by broadmindedness, wholeheartedness and responsibility.

Although ancient, Dewey's (1933) writings could be appropriate to some current studies about the enhancement of teachers' professional development. He has set up an association between some teaching attributes and the act of reflection. According to Dewey, reflective thinking involves; firstly, a state of doubt, uncertainty, confusion and mental difficulty. Secondly, an act of seeking and inquiring to find the material that will solve the doubt and settle down the perplexity. In this manner, Dewey (1933) hypothesizes that reflection is composed of five phases, comprising a reflective cycle, which should fit all together to shape the practice of reflective thinking. If the phases of reflection are allied, the reflective cycles may be allied also. At the first rank of the cycle, suggestions are placed to refer to ideas and possibilities that come to mind when one is confronted by a perplexing situation. At the second level, there is problem or intellectualization that entails viewing the puzzle as whole picture rather than small entities on their own. In other terms, it necessitates a whole understanding of the perplexing situation so that the resolution may be more intellectualized. The third stage of the cycle is forming a hypothesis

after recognizing a suggestion. Considering a hypothesis includes observing deeply, accumulating information then seeing how the hypothesis stands up to cautious testing. Reasoning as a fourth step is based on connecting information with ideas and previous experiences to develop suggestions, hypothesis and tests. Finally, testing is the step in which the hypothesized suggestion can be tested. Testing provides the teacher with the opportunity to find out how well s/he has thought throughout the problem situation (Loughran, 2005).

In contemporary education, language teachers have to become critically reflective practitioners, who are conscious, at diverse points, of all the existed components that form the content and the context of a language course. Moreover, teachers are required to explore ways to put their critical understanding in practice for the sake of meeting the imperatives of nowadays classrooms (Osborn, 2000).

Therefore, the work of Zeichner and Liston (1996) strongly recognizes the role of reflective teaching for professional development. They suppose that the handling of reflective teaching would provide teachers with the skills to enquire their teaching, develop their practices over time, and take the responsibility for their professional development. Hence, they consider the concept of responsibility as essential ingredient in the reflective teacher.

Arguably, reflective teaching practice is endorsed by those who are considered as critical thinkers. Thus, critical forms of reflective practice can result in individual and collective development.

2.7.1.2. Critical Reflection

As they are intertwined, the terms reflective practice and critical reflection are often used interchangeably (Redmond, 2004). Nonetheless, some scholars (Reynolds, 1998; Caterrall, 2022) stressed the importance of drawing a distinction between them in order to give appropriate emphasis to the potential of critical reflection, respectively for Christodoulou (2013).

Critical reflection involves analyzing behaviours and problems in and out of the educational setting with the intent of explaining the pedagogical causes behind their existence. In view of that, Osborn asserts,

Critical reflection involves challenging the boundaries of our educational thought and practice and rearranging or dissecting the constructs that we employ in an effort to understand them. It is ideological and moral, yes, but it is also disquieting. (2000: 66)

A critical form of reflection on practice enables teachers to act in a certain manner. It functions when teachers attain a language, establish a range of arguments, and hold a skillful authority to renovate the prevailing order of things in order to develop the quality of learners' educational experience. Fundamental to being critical reflective teacher is to seek answers to probing and stimulating questions. These are mainly why and how-type questions, including; why do I teach this way? Why have I dealt with that way? Why has my teaching become the way it is? How can I change my way of teaching? (Ghaye, 2011). In this vein, Brookfield (1995) said, "being a critical thinker is part of what it means to be a developing person ... without critical thinking ... our own places remain organized as they were twenty years ago" (qtd. in Ghaye 2011:41).

For that reason, Hillier (2005) contended that reflecting critically qualifies teachers to challenge their assumptions about why they teach the way they do. In addition, critical reflective teachers will be able to find the place they feel lacking and why they account for redundant impracticable standards.

Rolfe et al. (2001) postulate that thinking critically at practices entails, in its turn, the use of the reflective process to seek systematically and rigorously. All teachers reflect on their actions but the problematic situation is how often do they use their reflections to learn from their practices, to experiment the recognized approach and, essentially, to make a tangible alteration to practice (Ghaye, 2011).

Accordingly, Richards and Lockhart (1996) assume that critical reflection is an ongoing process and a routine teaching fragment that qualifies teachers to examine their teaching practices, try diverse options and evaluate their effects on teaching. This active involvement in reflecting on the process of teaching helps teachers to ascertain if there is a gap between what they teach and what their learners learn. In this manner, Ghaye (2011) assumes that critical reflection aids teachers to value the nature and authority of the forces that oblige them to seek for reputable and valued educational results.

Overall, it can be assumed that critical reflection results in improved action as it deals with the context in which teaching is practiced through asking probing questions. Without critical reflection, teaching will stay at finest uniformed and at worst unproductive and prejudiced. Thus, fostering the spirit of critical reflection amongst teachers is of crucial significance.

2.7.1.3. Types of Reflection

Understanding reflection and its practice necessitate a profound look at the work of Donald Schön (1983; 1987). His book “The Reflective Practitioner” (with a subtitle, *How Professionals Think in Action*) explains the significance of re-framing practice. The latter encompasses looking at the same event from diverse points of view or perspectives. For instance, the standpoint of a child, learner, teacher, colleague or mentor. In view of that, it has to be mentioned that recent research on reflective teaching has been largely stimulated by the work of Schön (Ghaye, 2011).

Schön view of reflection is shaped by his observation of professionals’ thinking in action. He explains reflection in terms of the knowledge extended by a practitioner’s own experience (Loughran, 1996). Consequently, reflection is a process in which a practitioner attempts to solve and use a perplexing or significant phenomenon while concurrently reflecting on “the understandings which have been implicit in his action, understandings which he surfaces, criticizes, restructures, and embodies in further action” (Schön, 1983:50 qtd. in Jay, 2003: 12). In short, Schön’s

description of reflection that expands Dewey's philosophy entails moving back and forth between the performance of thinking and action. His work captures three essential models about how teachers reflect on their practices: reflection-on-action, reflection-in-action and reflection-for-action.

- ❖ Reflection-on-action is the type of reflection that takes place after the action. This type forms the basis of much of the literature in the areas of reflective teaching and reflective teacher education (Rushton and Suter, 2012). The usual performance of reflection encompasses a chronology of thought then action. In this case, reflection means resting for a while after the accomplishment of an activity in order to consider how it was done, to see if it was well done or not, and what could be changed. To quote, reflection-on-action is viewed as, "the systematic and deliberate thinking back over one's actions...teachers who are thoughtful about their work' (Russell and Munby, 1992, qtd. in Loughran, 1996: 6).

Schön's observation revealed that professionals would indeed think on their practice after the execution of the task. In teaching, such model of reflection may occur after a session or at the end of a teaching day (Jay, 2003). Reflection-on-action entails writing up reflections or debating their practices with a mentor or a colleague. This enquiry allows teachers to explore answers to their questions and develop innovative ideas for further practice. As a result, one may deduce that this type of reflection is a sort of meta-thinking. After the event, teachers reflect on their decisions and responses, thoughts and feelings about the lesson and their learners' actions.

- ❖ Reflection-in-action is another way of reflecting that shares equal importance with the previously mentioned one. Schön (1983; 1987) asserts that professionals would essentially reflect in the midst of the event, "reflection on one's spontaneous ways of thinking and acting, undertaken in the midst of action to guide further action" (qtd. in Burns, 2010: 14). Thus, this model entails thinking during action.

Schön defines reflection-in-action as the intertwining of thought and action to cope with confusing unbalanced and complex situations. For instance, teachers may reflect-in-action when confronted by lack of interest on the part of the learners. This form of reflection accounts for problems in an attempt to make sense of them (Jay, 2003). Goodwyn (1997) asserts that by reflecting-in-action, teachers continuously assess and mentor the learning environment, constructing consistent modification, even making major changes to their original prospects. Such reflection is not only invisible and difficult to be observed by colleagues or mentors but difficult to be achieved by teachers, as most of their reflection will take place after the classroom. Hence, reflection in these examples takes place in the midst of action, not later.

- ❖ Reflection-for-action is the type of reflection which was expanded from Schön's models (1983) of reflection-on-action and reflection-in-action. Killion and Todnem (1991) introduced another model that entails thought then action. They contended that reflection is methodical for future practice, that it is

The desired outcome of both previous types of reflection. We undertake reflection, not so much to revisit the past or to become aware of the metacognitive process one is experiencing (both noble reasons in themselves), but to guide future action (the more practical purpose). (qtd. in Jay, 2003: 13)

Reflection on something that is already done is fundamental to understand it better, expand your knowledge about it, change or modify it. These are all significant reasons why a teacher may reflect on their own or others' work. Another reason for taking such kind of reflection is to plan some steps or techniques consistent with what has been learnt. This planning aspect is significant as planning for action and action itself are dissimilar. As an example, a teacher might think of alternative ways to promote learners autonomy. Planning for

action is termed by Manen (1991) as ‘anticipatory reflection’ (Ghaye, 2011).

In the present investigation, reflection-for-action is used to figure out why a learner is not autonomous in an autonomy-supporting environment assisted by computers, and then the researcher tries new ways to improve self-directed learning. To sum up, the three types of reflection: before, after and for the purpose of future action are useful elements for successful teaching.

2.7.2. Levels and Models of reflective Practice

Reflection on one’s own teaching practice is an essential component for success and professional development. It is the everyday practice of the teacher’s working day (Rushton and Sutter, 2012). Yet reflecting on teaching practices, and the manner in which learners learn from the offered taught experiences, is a contingent practice that hangs on certain levels and models.

2.7.2.1. Levels of Reflective Practice

Reflection as a process has long been associated with cycles. Building on that three levels of reflection are introduced. Rushton and Sutter (2012) suggested three different levels of reflection, which are not cooperatively exclusive.

- Technical reflection is the daily reflection on practice undertaken by teachers. It is preoccupied with the selected techniques of planning and learning preparation, the introduction of the learning session, communication in the classroom and management of cooperative work. It is also concerned with the selection of teaching methods and learning resources, assessment of learners’ performance and ways of providing feedback.
- Organizational reflection is the second model that is mainly concerned with the teaching and learning organization. It is cooperative in its nature as it considers the decisions taken by

teachers and other members of the same institution on a variety of disputes that may affect the quality of teaching and learning. This cooperative reflection includes course organization, instructional activities, teaching and learning resources and the required amount of support for students with special needs.

- Critical reflection is firmly contrasted with the previous models as it exceeds the organization boundaries. It entails reflection on the broader social, political and economic background within which the teacher works and the learners learn. At this level, the teacher reflects on government policy decisions, funding of the educational sector and increasing or decreasing the workload. Throughout this model of reflection, the teacher will generate a critical vision of the broader impacts on professional practice.

To sum up, the teacher's reflection can be technically practiced at an organizational level on daily classroom performance. It can also be cooperatively practiced at the organization level on shared concerns by a school staff. Lastly, teachers may develop critical qualities by reflecting on a wider scope.

2.7.2.2. Models of Reflective Practice

The process of reflection and its application in teaching can be understood through a number of models. Indeed, several models of reflection are offered by scholars to explain how reflection is carried out. Though holding dissimilar principles, these models acknowledge the merits of reflective practices for professional development. Ghaye (1998) distinguished five types of models: structured, hierarchical, iterative, synthetic and holistic. All of which differ in terms of their levels of rigidity or flexibility and the types of reflection they are based up on.

Structured models of reflection may employ a number of phases or sets of questions to direct the process of reflection. Structured reflection can be

done through Peters (1994) model, which requires (1) the practitioners thinking on a concrete state or situation, and then (2) stepping back to evaluate their assumptions about that state. In the light of this model, Brookfield (1995) proposed that reflective practitioners can observe a situation personally (at a technical level), cooperatively from colleagues perspectives, from learners points of view or based on their theoretical readings. Brookfield named these perspectives as the four critical lenses. Furthermore, he considered critical reflection as an ultimate approach to teaching (Hillier, 2005).

Hierarchical models center on leading the reflective practitioners through subsequent ranks or proceeding stages of reflective capacities. Mezirow's (1981) hierarchy of critical reflection represents best this model. It entails seven levels, placing 'reflectivity' at the base of the hierarchy and theoretical at the topmost (Ghaye, 2011).

Iterative and holistic models, on the other hand, are in some way more cyclical in their nature. Engaging in a reflective cycle is the most common way of structuring reflection. In fact, cyclical reflection is chiefly based on the principle that insightful consciousness and developed knowledge ascend from frequent engagements around the reflective cycle (ibid).

Gibbs (1988) reflective cycle includes six discontinuing points, and every point on the cycle is allied to a strategic question. The first point to be considered is the description of the events (what happened?). The next point implies examining feelings (what were you thinking and feeling?). The third point stops the reflector at giving judgments and evaluating (what was good and bad about the experience?). Based on the previous step, the reflector analyses the situation in the fourth point (what sense can you make of the situation). Drawing conclusions (what else could you have done) is the fifth step in the cycle designed purposely to offer an opportunity to generate an action plan that is positioned in the sixth level associated with the question of (if it arose again what would you do?).

Overall, reflective practice be it in, on or for action; at a technical, organizational or critical level; following structured, hierarchical, iterative, synthetic or holistic models requires the use of a number of techniques and tools for collecting data. In the literature, plenty of tools have been written about. These tools are going to be reviewed in the following sub-section.

2.7.3. Tools for the practice of Reflective Teaching

Reflective teaching is a procedure that can be used to improve the quality of teaching. For the sake of reflecting on the teaching and learning processes, teachers often need to utilize a number of tools to gather data for reflection. These tools may be used in a written or verbal form. They include journaling, lesson report, interviewing and observation.

2.7.3.1. Keeping Journals

The word journal derives from the French word 'jour' (day). Participant researchers often employ journals to record their thoughts and ideas about the research activities. Indeed, journal entry or journaling is, conceivably, the most frequently used tool for reflective practice. Teaching practitioners can use journals to reflect on their practices and what is happening in their classrooms.

Ghaye (2011) considers journal writing as an important aid to construction and interpretation of meaning which both form the essence of reflective practice.

Typically, reflective journals can be unstructured by which researchers record notes through tangible notebooks or structured by presenting questions to address (Lodico et al., 2006).

Richard and Lockhart (1996) have identified six approaches to classroom investigation. The first of which is a teaching journal that they defined as, "teacher's or a student teacher's written response to teaching events" (1996: 7). They have also identified two main purposes of teaching journals:

1. Events and ideas are recorded for the purpose of later reflection.

2. The process of writing itself helps trigger insights about teaching.

Writing in this sense serves as a discovery process.

Essentially, journal writing, as a data attainment method, is opted for in the present research work, thus it will be more elaborated in the next chapter.

2.7.3.2. Lesson Reports

More definite than the teaching journals that are concerned with the teaching experience, lesson reports are written accounts aim at describing the main characteristic features of the lesson. These accounts enable teachers to monitor the lesson events in terms of the time expended on the diverse fragments of the lesson, and its degree of effectiveness. In this vein, Richards and Lockhart (1996: 9) say, “a lesson report is a structured inventory or list which enables teachers to describe their recollections of the main features of a lesson”.

In fact, a lesson report is quietly different from a lesson plan that intends to organize the teaching/learning steps of a lesson. Lesson reports document what happens during a lesson from the teacher’s perspective. Richards and Lockhart (1996) have recommended four procedures for the preparation of an effective lesson report. As a first step, teachers have to identify their teaching approach, the course goals, the teaching activities and the required resources. Next, teachers have to formulate a lesson report form. Thirdly, the lesson report form needs to be respected and used on a regular basis to document the possible details expressed in the first step. Lastly, regular meetings have to be held to compare the documented reports, reflect and promote collaborative thinking.

2.7.3.3. Observation

Amongst the oldest data collection methods, observation involves recording the observed site by means of the observers’ senses; predominantly seeing and listening; in a scientific, methodical and purposeful manner to collect data about the envisioned issue in its natural

background. Though counted as one of the most deliberated research methods but it is frequently employed with other methods (Given, 2008).

Typically, observation has been advocated as a strategy for developing the quality of teaching that is the targeted goal of reflective practice; According to Loughran (1996) observation of one's own teaching signifies a valuable extension to guided reflective practice. In view of this, Ghaye (2011: 9) postulates,

Good reflective practitioners are good at observation. They observe with intense concentration in order to come to know what is going on in the (inter)actions or encounters in front of them and in which they are immersed.

Generally, observation can be participant (tasks accomplished by a teacher researcher observing his own class) or peer i.e., tasks conducted by a teacher observing a colleagues class.

For the present inquiry, the researcher as a reflective practitioner has selected observation as a technique to collect data for reflection. Therefore, all the participants' practices, activities and experiences need to be registered to examine why they behave in a certain manner, what happens in the studied setting, and what are the noticeable aspects in their activities. Hence, all the details that may enhance the researchers' understanding of the assessed problem have to be recorded.

2.7.3.4. Interviewing

Interviewing is, by definition, guiding an oral face-to-face conversation targeting at discussing and attaining various perspectives concerning a defined issue. Thus, the interview is a widely used tool to consider people's experiences from their inner insights, approaches and spirits of reality.

For reflective practice, interviews are assumed to create opportunities for practitioners to, firstly, reflect aloud. Secondly, it offers reflectors with the occasion to be heard by colleagues. Thirdly, it helps individuals to enlarge and extend critical reflection through continuing interrogations.

According to Lee and Barnett (1994), the practice of reflection is boosted when reflectors communicate with each other in a mode that support and strengthen the process. One prevailing strategy that can encourage reflection for the sake of professional development is when teachers participate in professional talk about their shared practices and problems.

Moreover, Dana and Yendol-Hoppey (2014) have also acknowledged the significance of interviewing for reflective practice. They have proposed eleven strategies to gather data for reflection, among which interviewing is the fourth strategy. They stressed the importance of teachers' talk for data collection and professional development.

2.7.4. Critical Reflection in English Language Teaching

Language teaching as a complex demanding process can be described in terms of what teachers do in the classroom; including their actions and attitudes, and the effects of these on the learning atmosphere. Language teachers are typically faced by a number of tasks including:

- Selecting instructed material.
- Introducing learning experiences.
- Preparing learners for new experiences.
- Posing questions.
- Checking learners' comprehension.
- Offering practice opportunities for learners.
- Providing feedback.
- Re-teaching when required.

In an attempt to cope with these teaching practices effectively, it is necessary for teachers to use their thought processes to evaluate their actions. This approach to teaching reflects cognitive, behavioural and constructivist aspects that is based on reflection on what they do (Richards and Lockhart, 1996).

Recently, the emphasis in foreign language teaching has moved away from methods and techniques towards a practice that aims at understanding

teaching as a process. The approach is directed by teachers as action researchers who are required to observe their teaching, collect information about their classrooms and their roles in it, and finally employ these information as a basis for self-evaluation, change and thus for professional development (Osborn, 2000; and Goodwyn, 1997).

Reflective approach to teaching can be used with any teaching method or approach. It works most with critical self-assessment and reflection for decision-making, planning and action. Almost two decades ago, reflective language teaching was regarded as an approach that foreign language teachers use it to, “collect data about teaching, examine their attitudes, beliefs, assumptions, and teaching practices, and use the information obtained as a basis for critical reflection about teaching” (Richards and Lockhart, 1996: 1).

Similarly, Byram (2000) considers reflective practice as a movement in foreign language education that implicates a self-reflective, systematic and critical approach to research by enquirers who are part of the studied context. Furthermore, Osborn (2000) acknowledges the role of critical reflection in monitoring and refining the growth of the foreign language profession. Critically reflective language teachers can include or exclude elements from the curriculum in order to support learners’ needs.

On the role of critical reflection for developed foreign language education, Green assumes, “Teachers have to demonstrate engagement with their subject and its pedagogy in a sustained and critical way as part of their everyday role” (2011: 3).

To end with, critical reflection in the ELT context would give teachers more voice and value, and thus magnify their knowledge. As a practice, it is essential for English teachers who aspire to enhance and develop their teaching.

2.7.5. Teacher’s Practices Reflecting Autonomous CALL

The development of foreign language pedagogy has been a continuous concern receiving considerable attention in educational enquiry. As an area

of interest in language pedagogy, learner autonomy has been highlighted in numerous studies as a competence required for self-determined participants in educational settings. Such a competence can be supported by both teachers and learners themselves, depending on the conditions existing in the educational environment.

It is precisely hypothesized in the present investigation that the teacher is required to become an action researcher enquiring his own teaching and his learners learning. Thus, the teacher needs to develop practices that support and buoy up action planning and enquiry for increased autonomy.

The autonomy supporting nature of CALL requires from teachers to be critically reflective practitioners. Therefore, it is recommended that

Effective CALL requires from teachers to create a particular learning atmosphere where techniques, resources and tools are set out to meet the needs of students and to be reflective about the conditions that stimulate their desires for learning (Yaiche, 2013: 3)

Accordingly, Raya and Vieira (2015) stressed that pedagogy for autonomy demands a reflective approach to teaching in which teaching becomes an exploratory type of enquiry. Hence, fostering learners' autonomy is a constant process of research that entails,

the ability to look critically at educational settings, identify and challenge constraints, carry out and assess action plans that subvert established traditions, and being able to understand both the potential and shortcomings of pedagogical action. (Raya and Vieira, 2015: 39)

In a study done by Salomi Papadima-Sophocleous (2008), it has been specifically proposed that the planning of e-portfolios in CALL courses would promote autonomous learning and prepare English teachers to become more reflective. The results indicated that e-portfolio could be an effective tool that offers learners with more control over their learning and helps teachers to become more critical of themselves (Levy et al., 2011).

Reflective teachers can develop their practice through observing their actions from a critical perspective; the critically reflective teacher has a predetermined goal for practice. As a result, the researcher contends that reflecting critically through participant observation, peer observation and journaling along with action research can assist the teacher's development of an action plan that fosters EFL learners' autonomy in CALL laboratory.

2.8. CONCLUSION

This chapter has provided a theoretical overview on learner autonomy as an educational goal and the main factors that underlie its importance. The place of autonomy within the major theories of learning has also been highlighted in order to understand this educational concern from different perspectives. Deliberately, it has been found that the majority of the theories recognize its vital role for successful learning. Learning English as a foreign language is not an exception, it entails increased autonomy as a critical aspect for successful acquisition.

The incorporation of CALL materials in EFL classrooms has been recommended to create an innovative environment that can enhance learners' autonomy. However, within this incorporation, the teaching/learning processes will be transformed and new practices for teachers should be developed. Thus, a reflective approach to teaching has been suggested so that learners will benefit from the introduced technology. The teacher has to be reflective while organizing and arranging the available technological devices. S/he has to spend time for observing learners, consider their needs for planning well and developing his/her performance, and for selecting cautiously the devices that support the intended outcome.

Nevertheless, as an action research, this scientific enquiry relies also on methodological approaches and techniques by which the researcher examines the incorporation of reflective teaching practice for developing EFL learners' autonomy in CALL environment. Therefore, the research design and procedures of the present investigation will be discussed in chapter three.

Chapter three

Action-Research Design and Methodology

CHAPTER THREE

Action-Research Design and Methodology

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3.9. CONCLUSION

3.1. INTRODUCTION

Promoting EFL learners' autonomy is a long and demanding mission that has been for many years overwhelmed by debate among educational researchers who have highlighted a number of factors that necessitate its promotion for successful language learning. Major learning theories were, in turn, interested in the concept by recognizing its significance. Latest years witnessed much more increased attention devoted to the concept of introducing CALL laboratories to promote learners' autonomy. Nonetheless, the introduction of CALL as sort of innovation and change requires a number of conditions and autonomous language learning was not always the intended outcome.

This chapter, therefore, seeks to suggest an action research based on the teacher's critical reflection to develop an action plan for the promotion of EFL learners' autonomy in CALL laboratory. It is, indeed, the practical aspect of the theoretical background resulting from the review of literature in chapter two.

This enquiry starts with a description of ELT at the university level exposing the actual designed lectures in general and the ones received in CALL laboratories in particular. The second section revolves around a description of the setting where the researcher undertook the study.

Moreover, this chapter aims to account for action research as a reflective practice technique that may enhance our understanding of how to arrange effective ways of improving learners' autonomy in nowadays classrooms. Further points to be raised will be the specific procedures for the action plan that entail the setting and hardware.

Finally, the remaining sections will be devoted to sampling and data attainment methods. Thus, the techniques by which the researcher has selected the sample and the methods used for data collection are described.

3.2. ELT AT THE UNIVERSITY LEVEL

In this global age, English has imposed itself as an international language. Therefore, it is taught in all Algerian universities to the point that there is no faculty free from English either in departments of foreign languages or other departments in which it takes the status of ESP. Similar to all Algerian educational institutions, universities have witnessed some reforms to cope with the requirements of the global age. As a result, the LMD system has been applied.

From independence until the 21st century, education in Algerian universities went through dramatic modifications that intended to come across the Algerian society requirements. This lengthy journey has been marked by numerous reforms. In this sense, higher education in Algeria was continuously shifting through various stages interspersed by a number of reforms that aimed at modernizing the educational system rendering the economic, ecological and technological prerequisites. Accordingly, changing the Algerian educational system was greatly required to benefit from the potentials of the global tendencies in higher education.

The Algerian Ministry of Higher Education has adopted the ideologies of the Bologna process in order to approve innovation and change. In fact, the announcement of the Bologna process was signed in 1999 by ministers of higher education from 29 European countries. This process has affected numerous countries within and beyond Europe. The Bologna reforms aim at making the European Higher Education Area (EHEA) more compatible and comparable. Its main objective is to promote the international competitiveness of European higher education and the employability of European citizens (The European Higher Education Area in 2015).

As consequence of adapting the Bologna reforms, the ministry of higher education in Algeria applied the LMD system. Indeed, LMD stands for (Licence – Master – Doctorat) equivalent to the Anglo-Saxon system of BMD (Bachelor) for undergraduates and (Master – Doctorate) for graduates.

(European University Association, 2004). In fact, LMD is a French three-cycle degree system composed of; firstly, the Licence degree that entails three years of studying within six semesters. Secondly, the Master degree involves two years divided into four semesters. Finally, the last stage is the Doctorate degree that consists six semesters of inquiry and investigation (three years). The LMD system is clearly illustrated in the following figure.

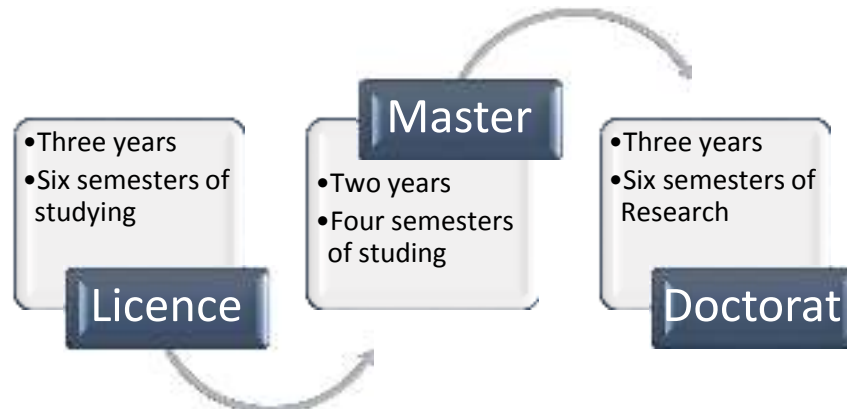


Figure 3.1. LMD Architecture

Throughout the first degree of the cycle, students are exposed to 400 hours of studying in which new modular courses and learning experiences are offered to provide students with more choices to move on to the next degree of the system (Djebbari, 2014).

Moreover, the system is based on a number of “teaching units”, namely: fundamental units in which the essential subjects are clustered, methodology units which are designed to develop learners’ methodological skills, discovery units intend to acquaint learners with the new subjects of the field and finally transversal units planned for subjects as foreign languages. In this sense, each teaching unit is composed of a number of modular courses that in turn have precise coefficients and credits. The latter are essential fragments of the system that necessitate the students’ attainment of the required credits for each semester.

The Algerian university reform of LMD started in 2004 is considered as a move towards innovation and change as the European applications of the

system has ascertained its success, and the majority of the European countries have implemented it (Miliani, 2010). In point of fact, the educational system in Algeria can be described as, “obsolete in a world that moves, goes fast and with the everlasting innovations and the necessary changes induced by the digital revolution’ (Haraoubia, Minister of Higher Education (2007), mentioned in Miliani 2010).

The move towards the LMD system is whispered to; make higher education accessible for young people, advocate student-centered learning with prudently intentional goals, and transform learning through information and communication technologies. Nonetheless, these goals require both teachers’ and learners’ involvement in a training process. Thus, continuous education and training became imperatives for successful application.

As far as language teaching is concerned, Mami (2013) contended that the Algerian ministry of higher education has to depend on the new methods of linguistic competence in order to benefit from the LMD application in the area of foreign education. In this sense, success will depend on the execution of the following principles.

- Planning and evaluation of the students’ needs as well as those liaised to the socioeconomic market,
- Developing multimedia at the level of oral expression and vocabulary,
- Encouraging student enhancement with mobility,
- Creating cooperation between universities who share the same objectives and interests.
- Create listening cells and audits in order to register students’ propositions.
- Prepare students for vocational education through the choice of English.

Mami (2013:246).

Overall, the movement towards change that touched the Algerian educational system at the university level intended to address a total innovation in order to allow learners follow the wave of the technological advancements to go hand in hand with the world's educational system. However, some educationalists claim that the LMD application is not appropriate in the Algerian context due to many reasons. Miliani (2010) is of the view that the ill-planned alternations, uninformed community and the poorly trained supporters are chief factors that caused LMD failure in Algeria. In the same line of thought, Mami (2013) recommended that a successful reform in the area of EFL teaching requires careful planning at all levels of education. As a response to such statements, Haraoubia, Minister of Higher Education (2013), stated that those who claimed that the LMD system is an inapplicable reform, did not comprehend its intended benefits.

3.3. FOREIGN LANGUAGES DEPARTEMENT: A Brief Overview

The department of foreign languages is located at the University Center –Salhi Ahmed- of Naama, Institution of Letters and Foreign Languages. The latter was founded in 2010, and in 2011, the department of foreign languages started working with its two sections: French and English under the LMD system.

Registered students are Baccalaureate holders belonging to different streams including; foreign languages, philosophy, life and natural sciences and mathematics; from diverse regions of the country. The pedagogical team of the English section prepares students for three years to get the 'Licence Degree' or 'B.A' in the Anglo-Saxon educational system. During the three years, learners of English are exposed to essential skills associated with their already acquired knowledge.

3.3.1. Designed Modular Courses

Throughout three years, EFL learners are presented to various modular courses of oral comprehension and expression, written comprehension and expression, grammar, phonetics and other subjects such as general

linguistics, literature, civilization, research methodology, didactics of foreign languages, human and social sciences as obligatory modules. The following tables provide a clear vision of the modules taught during six semesters according to the canevas of 2016/2017.

First Year					
	Teaching units	Modules	Credits	Coefficient	Hours/ week
	First semester	Fundamental teaching units	Written comprehension and expression	6	4
Oral comprehension and expression			4	2	3h00
Grammar			4	2	3h00
Phonetics			2	1	1h30
Initiation to linguistics			2	1	1h30
Initiation to literary texts			2	1	1h30
Culture and civilization of the language			2	1	1h30
Methodology unit		Techniques for university work	4	1	3h00
Discovery unit		Social and human sciences	2	1	1h30
Transversal unit		Foreign language	2	1	1h30
Second		Written comprehension and expression	6	4	3h00
		Oral comprehension and expression	4	2	4h30
		Grammar	4	2	3h00

Fundamental teaching units	Phonetics	2	1	1h30
	Initiation to linguistics	2	1	1h30
	Literature of the studied language	2	1	1h30
	Culture and civilization of the language	2	1	1h30
Methodology unit	Techniques for university work	4	1	3h00
Discovery unit	Social and human sciences	2	1	1h30
Transversal unit	Foreign language	2	1	1h30

Table 3.1. Teaching Units of First Year LMD Students at the English Section

As it is mentioned in the table, the fundamental teaching units revolve around the essential skills required for foreign language learning. They encompass modular courses that teach the basic language skills and introduce learners to the cultures of the language they are studying. The methodology unit, at this level, presents learners with the principles of accumulating secondary data. As an accessory to practice language structures, the discovery unit allows learners to gain knowledge about social and human sciences. Finally, the transversal unit introduces learners to a foreign language that is French in the studied setting.

Concerning the second year, which includes the third and fourth semesters, students are presented to the same teaching units except for the discovery unit in which the module of social and human sciences is replaced by a new module called an initiation to translation. Dissimilar to other universities which provide two options; either language studies or literature and civilization, the English section at Naama University Center does not provide specific options to select in the fifth and the sixth semesters due to

the absence of qualified teachers in literature and civilization, thus, students have only one choice that is English language in general. At this level, the main teaching units introduced to EFL learners are presented in the next table.

Third Year					
	Teaching units	Modules	Credits	Coefficient	Hours/week
Fifth semester	Fundamental teaching units	Linguistics	4	3	3h 00
		Studies of literary texts	4	3	3h00
		Studies of civilization texts	4	3	3h00
		Written comprehension and production	2	2	1h30
		Oral comprehension and production	2	2	1h30
		Translation and interpretation	2	2	1h30
		Introduction to didactics	2	1	1h30
		Introduction to languages of specialties	2	1	1h30
	Methodology unit	Research Techniques	4	2	1h30
	Discovery unit	Cognitive psychology	2	1	1h30
Transversal unit	Foreign language	2	1	1h30	
Sixth semester		Linguistics	4	3	3h00
		Studies of literary texts	4	3	3h00
		Studies of civilization texts	4	3	3h00

Fundamental teaching units	Written comprehension and production	2	2	1h30
	oral comprehension and production	2	2	1h30
	Translation and interpretation	2	2	1h30
	Introduction to didactics	2	1	1h30
	Introduction to languages of specialties	2	1	1h30
Methodology unit	Research methodology	4	2	3h00
Discovery unit	Cognitive psychology	2	1	1h30
Transversal unit	Foreign language	2	1	1h30

Table 3.2. Teaching Units of Third Year LMD Students at the English Section

According to the table, it can be noticed that students are not required to write an extended essay or a training report. Based on the average they get in the 'licence' degree, students carry on their master studies in linguistics.

In fact, teachers are provided with the content of the modular courses in a form of precise guidelines. According to the students' needs analysis, the teacher develops the instructional points to deal with learners' encountered difficulties. Concerning the available materials, the English section is equipped with two computer-assisted language laboratories designed especially to teach listening and speaking skills.

3.3.2. Oral Comprehension/Expression in CALL Laboratories

As the two available CALL laboratories are designed to teach listening and speaking skills, the teacher-researcher has incorporated reflective practice to promote autonomous CALL while teaching the modular course of

oral comprehension and expression. Thus, a description of the modular course in addition to its purposes are going to be reviewed in this section.

According to the 2016 'licence' degree curriculum, the modular course of oral comprehension and expression is assigned to EFL learners all through the six semesters. However, the number of hours allotted to this modular course is different from one semester to another. For the first year, three hours per a week are devoted to this module in the first semester and changed to four hours and half in the second semester. Three hours for the third and the fourth semesters and only one hour and a half are assigned to learners for the fifth and the sixth semesters. Remarkably, oral comprehension and expression is not integrated in the two years of Master degree.

The main goal behind incorporating this modular course is to help learners improve and develop oral expression and listening comprehension i.e., the focus is on developing the learners' communicative skills. According to the official curriculum, the main objectives of the oral comprehension and expression module are:

- ✓ Teaching EFL learners strategies of oral discourse.
- ✓ Develop the learners listening skill through real audio recordings presenting slices of real life.
- ✓ Presenting learners to different acts of communication.
- ✓ Comprehend natural speech in communicative language situations.
- ✓ Preparing the learners to get at the meaning of the listening activity.
- ✓ Teaching learners how to recognize and infer meaning in real language use contexts.

Thus, the emphasis is on the development of the learners listening and speaking skills. For the accomplishment of these objectives, the English section at Naama University Center has placed EFL learners in computer-assisted laboratories equipped with all the multimedia resources needed for the enhancement of oral comprehension and expression learning. In fact, the two available laboratories are designed especially to teach listening and

speaking. Therefore, the administration does not assign other modular courses in the laboratories rather than oral comprehension and expression.

Though named as oral comprehension and expression/production, this modular course is introduced to EFL learners in terms of two modules: listening comprehension and oral expression. The English section devotes equal time for each. As a result, listening comprehension is recognized as a modular course designed to be presented in CALL environment. On the other hand, oral expression is another module that is designed to develop the learners' speaking capacities in the same environment that is enriched by multimedia resources (these resources will be listed in section 3.6).

Based on the syllabus objectives, one may deduce that listening comprehension and oral expression are systematically instructed. Comprehension lectures, in which learners are exposed to an extensive amount of listening followed by comprehension questions and content activities, are introduced first; then followed by expression lectures where learners reproduce the content of the listening course or model in other given experiences, such as dialogues or interviews.

3.4. ACTION RESEARCH: Planning and Rationale

Foreign language teachers worldwide hope and attempt to be effective teachers who are able to provide the best learning opportunities for their learners. Thus, it would be of vital significance to extend their teaching skills and attain more comprehension of themselves as teachers, their classrooms and their learners. In this sense, language teaching requires serious investigations in different areas where practitioners enquire their performance objectively. As a result, language teachers have to be continuously engaged in research in order to work responsibly and professionally (Brumfit and Mitchel, 1990).

Autonomy as an area of interest in language education has been investigated in several books and articles. Over time, researchers have

recognized the complexity of promoting language learner autonomy. Recently, practices in this domain have become more sophisticated. The emerging technologies in educational institutions have provided learners with extensive opportunities to be self-reliant. Nevertheless, research in this area found that the introduction of CALL laboratories does not necessarily lead to increased autonomy and that it needs to be accompanied by other reforms including the methodology used by the teacher (Yaiche, 2013).

In this vein, Raya and Vieira (2015) did not deny the role of technology for enhanced autonomy but they stressed that technology for autonomy entails skillful action. They proposed that the teacher could promote EFL learners' autonomy through reflective practice and teacher inquiry. Nonetheless, there is a general agreement that teacher reflection needs to be complemented by action.

Using reflection as a practice to support and improve teaching has been progressively appreciated in the field of education. Reflection can be employed by teachers to gain knowledge about themselves or about those they practiced reflection upon. Accordingly, incorporating reflection needs to be supported by the use of action research. As a result, reflective practice and action research are mechanistic in their use (McIntosh, 2010).

Being part of the broad movement in education, action research is closely linked to the ideas of 'reflective practice' and the 'teacher as a researcher'. Action research entails the assimilation of a critical reflective approach to explore one's teaching context. Being critical, in this situation, means that teachers have to raise a questioning and a problematizing standpoint towards their teaching. The term problematizing does not simply mean that teaching is ineffective and full of problems, but it may mean that teachers can tackle an area in which they can perform better, exposing it to questioning, and then developing new practices (Burns, 2010).

Henry and Kemmis (1985) maintained that action research encompasses the participants in examination of their own situations for the sake of

developing rationality and justice of their own social and educational practices in addition to their comprehension of these practices and the circumstances in which these practices are accomplished.

Though interpretations of action research definitions are still under development, the following is probably the most cited one.

‘Self-reflective enquiry’ undertaken by participants in order to improve the rationality and justice of their own social or educational practices as well as their understanding of these practices and the situations in which these practices are carried out. (Carr and Kemmis, 1986, qtd. in Burns, 2010:5)

Koshy (2005) contends that action research helps enquirers to investigate aspects of their practice whether for the purpose of introducing an innovative method, or evaluating and reflecting on the usefulness of a prevailing practice with the aim of improving it. This enquiry is undertaken within the researcher’s own setting to learn through action for personal and professional development. For this reason, Kemmis and McTaggart (1988) have described it as ‘participatory research’.

Therefore, by conducting action research, teachers become inquirers of their own teaching context. In this sense, the teachers’ aim as action researchers is to identify a problematic situation that the participants encounter in order to intervene in a deliberate way to bring about changes and better practice. These changes are said to be based on the data the researcher collects systematically (Burns, 2010).

Kurt Lewin was the first to introduce the term action research in terms of a model that comprises a spiral of cycles. The basic activities in these cycles are:

- ✓ Planning the first action step for change.
- ✓ Acting and observing the procedure and the results of the change.

- ✓ Reflecting on the procedure and the results then planning the second action step.
- ✓ Acting and observing the procedure and the results of the change
- ✓ Reflecting on the procedure and the results then planning the third action step and so on. (Elliott, 1991)

In this vein, Altrichter et al. (2005) have identified four main stages to go through while undertaking action research. The first step requires the definition of a starting point for the improvement of one's own practice. Secondly, the action researcher has to use observation, interviews and other methods to collect data and clarify the situation based on the analysis of the obtained data. This clarification is considered as the basis by which the researcher develops strategies for practice in the third step. It has to be mentioned that the developed strategy is not expected to solve the defined issue instantly, thus the researcher has to reenter the stage of clarification to develop other action strategies. Finally, teacher-researchers end their enquiry by making their professional knowledge accessible to others for critical discussion.

To sum up, action research is a form of applied research that enhances practice, develops new theoretical insight and introduces change in the studied setting. It is an emerging type of research in education that is currently gaining a substantial amount of interest in the field of ELT.

3.4.1. Action Research in Foreign Language Teaching

As its name indicates, action research involves both action and research at the same time. The action facet entails a sort of planned intervention that may include a strategy, a process or an activity, intentionally put into practice in the research context. This intervention is carefully planned to deal with a perceived puzzling or perplexing situation. In fact, these situations may be linked to teaching, learning or curriculum (Burns, 2010).

The field of ELT has directed its interest to action research in 1990s. This movement towards action research was caused by the growing attention in the participation of teachers in classroom-centered research. According to Burns (2005), the work of Nunan (1989) entitled ‘understanding language classrooms: a guide for teacher-initiated action’, drew an extensive direction towards action research. The book intended to seriously introduce classroom research to language educators who did not receive special training in research methods. It addressed purposely the classroom teacher and teacher in training. Afterward, works of Allwright and Bailey (1991) and Brindley (1990) have significantly introduced the concept of the active reflective role of the teacher as a researcher.

EFL teacher-initiated classroom investigation is considered as a means of developing practice, Field (2000). A demonstrative action research inquiry may be very useful to assess, for instance, the effectiveness of feedback in class, reasons of learner anxiety, or the demotivating learning experiences. This type of research helps in understanding classroom routines within a particular methodology (Hall, 2011).

Richards and Lockhart (1996) assume that EFL teachers can carry out action research in their classrooms to assess a number of teaching dimensions, including teachers and learners’ beliefs, teacher decision-making and teachers’ and learners’ roles. While undertaking action research, teachers are promoting change through the implementation of an action plan with consequent observation of the effects of improvement. To report the outcomes of the action plan, researchers need to record the situation before and after the course of action.

In this context, Wallace (1998) has suggested a number of areas for action in foreign language classrooms including:

- Classroom management
- Appropriate materials

- Particular teaching areas (e.g., reading, oral skills)
- Student behavior, achievement, or motivation
- Personal management issues (e.g., time management, relationships with colleagues/higher management)

(Cummins and Davison, 2007)

ELT studies conducted through action research are relatively few in number. Indeed, there are two most common accounts; firstly, studies carried out by academic researchers who have undertaken action research as a component of BATESOL and MATESOL (Bachelor's and Master's in Teaching English to Speakers of Other Languages). Secondly, studies conducted by individual teacher-researchers as final projects for tertiary qualifications. A third less common type is reports written by teachers as a result of action research conducted for their own professional development (Burns, 2005).

Recently, ELT teachers are paying more attention to action research as it helps to elucidate and explain classroom encountered issues. As far as this study is concerned, Burns (2010) have also stressed that action research covered areas are endless and can include many enquiry possibilities such as increasing learners' autonomy. Her suggestion has enthused the researcher more to rely on action research to investigate the usefulness of reflective practice for autonomous CALL.

3.4.2. Research Objectives and Motives

Action research is a type of participatory research also called teacher-led inquiry by which action researchers use an interactive cycle of steps to develop understanding and resolution of targeted problems. It involves a cyclic of procedures of observation, analysis, action and reflection (Alatis, 1995).

Generally, there are two main types of action research, critical action research and practical action research. The former is collaborative in its nature and is executed to improve the situation of the participants being studied. The latter is carried out in a classroom setting to recognize and elucidate a puzzling situation. As the present research project has a practical

orientation to deal with EFL learners' autonomy in CALL environment, the researcher opted for practical action research that is based on everyday practice to result in slight changes at a local level.

In fact, there are various models of action research. For the present investigation, the researcher has selected Kemmis and McTaggart (1988) model. The major authors in the field have defined four major stages in a cycle of research. Dependently, the first cycle may become continuing spiral of cycles that recurs until achieving the anticipated outcome.

1. **Planning:** In this phase, the action researcher identifies the problem first then develops an action plan to bring about positive change. For the present investigation, the researcher considers the possible kind of investigation with the realities and constraints of CALL environment then thinks of the possible potential improvement.
2. **Action:** After a decided period, the researcher considers a carefully designed plan. The latter includes thoughtful interventions into the teaching situation that the researcher puts into action. The practice of the intervention in the studied setting is based on the researcher's critical reflection for action that entails thought then practice. After the state of doubt and uncertainty (as described by Dewey, 1933), the researcher enquires the hugged assumptions in order to settle down the perplexity and plan alternative ways of practice.
3. **Observation:** It is a data attainment phase in which the researcher observes systematically the possible effects of the action plan. It involves documenting the situation in addition to the participants' actions and opinions. The researcher has to be open-minded and tolerant while relying on colleagues' assistance to gather data about what is happening.
4. **Reflection:** In the last phase, the researcher reflects on, evaluates and describes the results of the action plan to understand the problem under investigation evidently. Based on the results, further cycles of action research are undertaken to improve the situation. In this

investigation, the researcher shared the research story with colleagues for critical discussion as part of the continuing professional development.

Kemmis and McTaggart (1988) model of action research is selected for the present research work due to its nature. It is fixed and rigid, which is consistent with the researcher's objective to reflect for action. It is also described as a 'one-way street' that follows only one direction. In this vein, Burns (2010: 8) acknowledges, "it is a useful model as it summarizes very succinctly the essential phases of the action research process". Moreover, the fourth stage named as reflection fits well with the research project that seeks to use the reflective approach to teach in CALL laboratories.

To sum up, the key principle of action research; that is the development of teaching practitioners who are self-critical, self-renovating and reflective; constitutes the basic motive that inspired the researcher to carry out an action research project. It is used in this study to test the usefulness of the teacher's practices that ultimately result from reflection for action (this type of reflection is defined in the second chapter) to deal with the perplexing situation of learners' autonomy in CALL environment.

3.5. DESCRIPTION OF THE ACTION PLAN

As a reflective process, action research aims to solve a defined teaching-learning problem. Other purposes of action research revolve around developing the teaching practice. The first step in starting up an action research is to develop a plan. The latter is drawn up by the teacher in order to guide an action. After the problem identification, the teacher thinks of possible method or technique to try it out.

When facing a contradiction situation, the teacher as a researcher decided to devise a specific course of action, which is a set of prompts that guide the teacher. Based on critical reflection, the teacher asked a number of questions including,

1. What is the reason behind my learners' lack of autonomy in CALL laboratory?
2. What makes my learners autonomous?
3. What kind of activities will help my learners to be autonomous?
4. Can I select a specific software to promote my learners autonomy?
5. How will using the software influence my learners' autonomy?
6. How will using the software lead to increased autonomy?

In asking and answering such questions, the teacher is in a position to evaluate her teaching, to decide if aspects of teaching could be changed or modified, to develop a strategy for change and to observe the effects of the strategy implementation. These practices maintain, in fact, the main principles of the reflective approach to teaching.

In the present research work, the teacher decided to make an action plan to help EFL learners to be self-initiators of the learning process in CALL laboratory. The teacher as action researcher planned to instruct listening and speaking through Oxford Practice Grammar Software Intermediate. The latter is specially designed to EFL learners at a middle or intermediate level. This means learners who are no longer beginners but are not yet proficient in English.

OPG Software is designed by Oxford University Press and programmed by Grove Street Media Ltd. It contains two levels: Zone 1 and Zone 2, and three sections: Listen and Speak, Read and Write, Test and Review. Certainly, the content of each section differs from one level to another.

Once the students open the Software, they are asked first to log in either by writing their names or selecting from the list if they have already saved their names. The following picture apparently demonstrates this step.



Figure 3.2. OPG Preliminary page

As a second step, students have to choose a level from the two offered ones. Thirdly, depending on the teacher's directions they have to select a section as it is shown in the following picture.



Figure 3.3. OPG Three Sections

The first section is designed to develop learners' listening comprehension and speaking skill. It is composed of two segments: listening practice and dialogues. In the listening practice segment, learners can select any exercise in which they are required to listen to the recording then choose the best response to it based on their comprehension. In fact, there are five sets of ten questions in this segment. In the dialogue segment, learners develop their speaking skill through joining in a conversation. This segment

contains twenty dialogues. Learners can see the text of the dialogue they select with missing words, fill in the blanks, and then record their self-talking part in the dialogue. As a final step, learners listen to their selves or the model dialogue.



Figure 3.4. OPG Listen and Speak Section

Accordingly, exercises within both segments inspire self-directed learning in which the teacher is only a guider of the learning process.

Reading and writing are skills that are necessary not only for language proficiency but are related to the development of the two other skills. Therefore, the second section intends to develop reading comprehension and writing. The section provides learners with ten exercises to do. Within each exercise, learners are given five sentences to read, asked to find out the mistakes then write down their own correct versions. The act of giving learners choices to select is said to be a motive that enthuSES their autonomy.

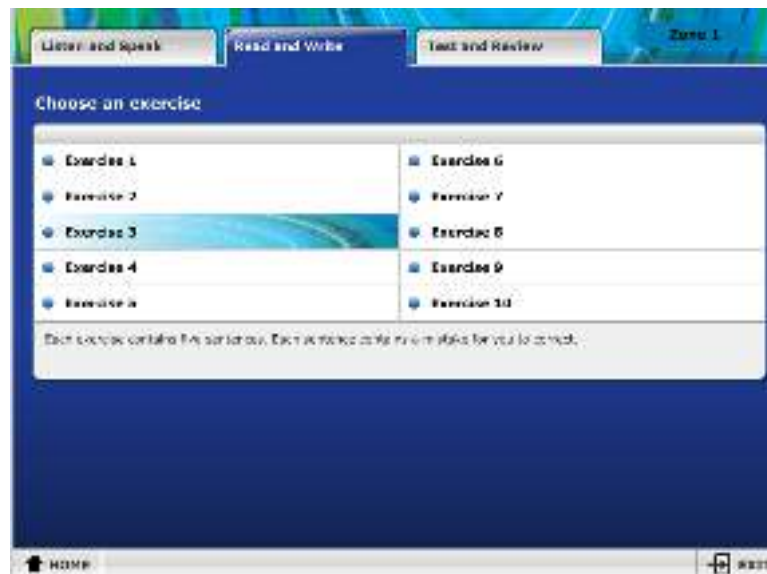


Figure 3.5. OPG Read and Write Section

The last section named as test and review frees learners from any pressure that may come from the teacher evaluation. In this section, learners test their capacities without the teacher's interference. There are four tests and each test comprises fifty questions. Learners choose the test themselves, look at their results and can try the test again to get a better score. They can print out their results in order to identify topics to study on their own or look for advice in OPG website. Accordingly, this section requires the learners' metacognitive skills. Indeed, evaluating what has been learnt is considered as a metacognitive strategy. OPG addresses the learners' self-regulation skills through providing them with the opportunity to evaluate their learning experiences. Thus, this section tackles one of the metacognitive factors for increased autonomy.



Figure 3.6. OPG Test and Review Section

OPG Software is a purposeful learning process designed by the teacher to assimilate learner autonomy. It initiates the learners' responsibilities to take decisions concerning all aspects of learning. In addition, it provides learners with the opportunity to evaluate what has been acquired. Certainly, planning, evaluating and decision making are cognitive factors that are identified in many definitions to learner autonomy. The Software, besides, fosters the affective factors to autonomous learning as it encourages learners to be self-determined. Learners using the OPG are fortified to have control over the means by which they learn. Finally, the scaffolding offered by the computer resources maintains the social factors to enhanced autonomy.

At this level, it has to be mentioned that OPG tasks reflect the integrative pedagogy of CALL as it integrates the four skills of listening, speaking, reading and writing into experiences. In this vein, Warschauer and Healey (1998) contended that the integrative experiences of CALL entail not only the integration of the four skills into tasks but require also a full assimilation of technology into the language learning process. Thus, the teacher's reflective practice aims to foster EFL learners' autonomy using the available technological resources as a continuing process for language learning.

As a result, OPG is suggested as reflective alternative to the classical modes of teaching listening and speaking that can bring about valuable changes in EFL learners' autonomy. These changes are dependent on the availability of certain conditions. Therefore, the next section identifies the procedures required for the success of the action plan.

3.6. SPECIFIC PROCEDURES FOR THE ACTION PLAN

Amongst the numerous hypothesized benefits of CALL, its positive effects on learners' autonomy have been repeatedly stated. However, it may not be the case in certain educational settings in which learners are still relying on their teachers in autonomy supporting environments. Consequently, this research work intends to investigate and points out the benefits of the reflective approach to teaching in CALL environment and the use of a specific software to have autonomous language learners. It strives to show that critical reflection in CALL environment will have a positive influence on EFL learners' autonomy.

After reviewing the major secondary data regarding autonomous learning; CALL as a modern suggested instructive means; reflective teaching as a practice to develop EFL learners' autonomy; selecting action research as a research format and mixed methods approach to attain data of diverse natures; the investigator decides on certain procedures while planning for action. These procedures involve decisions about the setting in which the study is conducted and the materials which means what should this setting contain in terms of the main CALL resources. All these procedures are planned to argue that with the practice of reflective teaching in laboratories where computers and every kind of technological equipment are available, EFL learners can be active, independent and self-reliant.

3.6.1. Setting

As a profession, teaching requires from its practitioners to be responsible and reflective. After a reflection for action, the teacher has identified an issue

in her practice that necessitates the planning of some action in order to change the situation. However, before developing the action plan, the investigator has to select the setting in which the defined issue takes place with enough frequency. Accordingly, the selection of the setting is thoroughly reliant on the nature of the research problem.

The research setting denotes the place in which the enquiry of a defined phenomenon is conducted, it has been defined by Given as, “the physical, social and cultural site in which the researcher conducts the study” (2008: 787). In other words, the research setting reflects the participants’ natural environment that can be a classroom, school, region or community.

In general, any inquiry carried out in the participants’ natural setting is referred to as field research, which utilizes naturalistic observation as the suitable measure for data attainment (Bordents and Abbott, 2011). The researcher often observes the site to carry out the research, which qualifies him/her to afford more information about the participants in their real setting and to report their practices, attitudes and behaviours (Creswell, 2012).

One of the most important characteristics of action research is its conduction in the practitioner-researcher’s own educational setting. As an action research, the present investigation is conducted by the teacher-researcher in the students natural setting (which is CALL laboratory) to identify and plan a course of action in order to remedy the issue of learner-centeredness that occurs in the autonomy supporting environment of CALL.

The present enquiry has been carried out on two groups of first year EFL students at Naama University Centre in the academic years of 2016-2017 attending oral comprehension and oral expression lectures where CALL resources are used by the teacher as tools to present learning materials. The setting of this study is a language laboratory in the department of foreign languages in which the teacher incorporated reflective practice to enhance

and increase learners' autonomy in their natural setting for one year collecting, primarily, observational data.

The language laboratory is situated in the ground floor; it comprises the main CALL tools (these tools will be listed in the following subsection). It is noticeably large and clean. For the features, it is tinted with a pastel colour, and contains many extensive windows and a wide door. The students' desks are close to each other arranged to form an array, and in each desk there is a computer for personal use. The teacher's desk is placed at the front of the room in a prominent position. The amount of light during lectures is intentionally considered for visual stimulation.

3.6.2. Hardware

As one of the cleverest inventions of the current technological age, the computer is actually employed in almost all facets of human life. Indeed, the computer is a system that involves many mechanisms including those that cannot be essentially touched and seen commonly named as Software. Other components such as central unite, key board and other resources are generally visual referred to as Hardware.

Accordingly, Hardware entails the corporal materials that embrace the computer system. In this manner, Kothari states, "All the physical components (such as CPU, Input-output devices, storage devices, etc.) of computer are collectively called hardware" (2004: 363). It encompasses input devices such as keyboard, image scanner and microphone. In fact, CPU stands for the Computer Processing Unit that carries out the occupation of storing data in the optical disk drives CD-RW and DVD-RW. As a final point, output devices such as screen, printer and speakers introduce data received from internal storage of the Computer Processing Unit.

Indeed, the main Hardware components used in the setting where the researcher implemented the action plan are:

- ✓ The system unit: is the fundamental core of a computer system contains several mechanisms that stock data such as the Computer

Processing Unit. It is referred to as microprocessor, often functions as the brain of the computer. Due to the constant technical repair offered by the administration, the system units of the students' computers enabled them to store and retrieve information in a flexible manner that consequently aided them to work successfully during lessons.

- ✓ Mouse: the students' computers are provided with mice that are the small devices employed to choose items on the screen. It is connected to the system unit by a long wire. It offers the students with the opportunity to control their own computers according to their interests, needs and goals, and thus direct their own learning.
- ✓ Keyboard: is a device utilized to type texts into the computer. It is an imperative tool required in many CALL activities. Moreover, it is reflected as a means of interaction between the student and the computer.
- ✓ Screen: also named monitor, it exhibits information and transform it in visual form through text and graphics. Indeed, the monitor quality provided in the setting of this investigation is of LCD (Liquid Crystal Display) type. It has the capacity to produce sharp images and is thinner and lighter than the traditional CRT (Cathode Ray Tube) type.
- ✓ Speakers: refer to the devices employed to play sound effects from the computer. It is connected to the system unit with cables. The laboratory that is the setting of the study is equipped with two kinds of speakers. For the microphone, two big speakers placed on the highest part of the walls. For the students' computers, headphones connected to each computer are afforded for personal use.
- ✓ Headphone: is the device that permits students to speak into the computer. In fact, headphones in the studied setting hold a pair of speakers over both ears and a small microphone stems from the right ear speaker. Consequently, the headphone is considered to play diverse roles. It may be used for listening comprehension activities and speaking into the computer.

- ✓ Data Show: is an equipment that presents the output onto a white fabric screen. It was widely used for slide presentations in oral expression sessions.

It should be stated that the internet that is one of the most significant CALL resources was provided in the studied setting but with a limited access. Nonetheless, all most all the students have access to the internet on their mobile phones the fact that helped them a lot to look and search for personal interests without the teacher's assistance. Therefore, the potential of the internet for increased autonomy is considered in the study.

3.7. SAMPLE MANAGEMENT

Sampling is one amongst the most challenging processes a researcher faces while conducting a study. Any research work should be supported by certain items on which the investigation is conducted. The process of sampling is considered as a definite plan embraced by the researcher to define a sample from a certain population and make decisions about the number of its items (Kothari, 2004). The adopted plan prominently impacts the generalizability of the gathered data, for that reason, Morrison assumes that a good quality research project is not only dependent on the suitable methodology and instrumentation but on the appropriateness of sampling procedures as well (Cohen et al., 2007).

Generally regarded as a subset of the population, a sample is defined by Dörnyei as, "the group of participants whom the researcher actually examines in an empirical investigation and the population is the group of people whom the study is about" (2007: 96). Thus, Dörnyei (2007) has established a clear distinction between a sample and a whole population.

Sampling decisions must be taken early at the general planning of any research work. Accordingly, Cohen et al. (2007) stressed the importance of defining the sample directly after considering the research issue and the whole population. In the same line of thought, they often argue that

accessibility to the whole population is time consuming; thus, researchers need to obtain data from a smaller group or division that is the sample.

Depending on the overall purpose of the study and the way the research is approached (whether quantitatively or qualitatively), a researcher may decide on a sample. Qualitative researchers have little interest in generalizing the results, thus, they often select their participants based on their characteristics that relate to the research questions. Conversely, quantitative researchers are interested in generalizing the results from the studied sample to the larger population, thus, they often rely on a sizeable sample (Lodico et al. 2006). As a variable, generalizability requires from researchers to select a representative sample. Indeed, there are many strategies to account for while selecting a sample that is characterized by representativeness.

Commonly, there are two main strategies for sample designs centred on two dissimilar standards: the representation basis and the element selection technique. Based on the former standard, selecting a sample can be achieved through either probability sampling technique or non-probability sampling technique. In probability sampling, the investigator chooses randomly from the larger population, and each participant (informant) has an equal probability or chance for being chosen. Jonker and Pennink defined it as a, “sample in which every member of the population (simple random sample) or some subset of the population (stratified sample) being tested has an equal chance of being included in the sample” (2010: 155).

In fact, there are two main categories of random sampling: simple random selection that is considered as the useful technique to develop a sample that is characterized by representativeness, and complex random sampling technique that employs other measures while selecting participants (Mackey and Gass, 2005). Examples of complex random sampling embrace stratified sampling which categorises the participants of the sample into groups in terms of age, sex or occupation.

On the other hand, non-probability sampling selects the research participants in a non-random way i.e., the informants do not share the same probability for being involved in the sample. This sampling strategy necessitates that the investigator deliberately and purposely opts for the participants. Types of non-probability sampling include convenience sampling, and purposive sampling which in turn comprises quota and judgement sampling.

Based on element selection basis, the sample can be ‘unrestricted’, which entails that each participant is designated independently from the whole population and ‘restricted sampling’, which integrates all the other types of sampling (Kothari, 2004).

Moreover, the size of the sample that the researcher selects from the wider population is crucial to the study’s credibility. It refers to the number of the items that are actually chosen for the study. Although rules for defining the size of the sample are not determined, there are some general guidelines to account for when selecting a sample. According to Kemper, Stringfield and Teddlie (2003), the identification of the number of the participant in action research is dependent on the specific research instruments the researcher plan to use (Efron and Ravid, 2013).

The present investigation is carefully designed on the representativeness basis so that the assembled data would be representative to the whole population under investigation in order to generalize the findings. The wider population is all EFL learners attending oral comprehension/expression courses in CALL environment; and English teachers at Salhi Ahmed University Centre -Naama. Since access to all those learners and teachers constitute a difficult and time-consuming task for the researcher, an accessible sample that is representative has been chosen using a simple random technique. For instance, among many groups of different levels receiving lectures in CALL environment the researcher has opted for two groups to apply the action plan.

Certainly, the researcher has accounted for randomization principle in order to ensure that each item of the larger population has an equal possibility of being incorporated in the studied sample, and to reduce any sort of bias as well.

3.7.1. Learners' Profile and Needs Analysis

As an action research, the participants of the present study are generally the people who affect or are affected by the problem under investigation. Their actions, attitudes and perceptions constitute valuable information that enable the researcher to answer the research issues. As the study assesses the usefulness of the teacher's reflective practice in CALL laboratory to support EFL learners' autonomy, those learners will be the primary group participants for the study.

3.6.1.1. Learners' Profile

The selected sample contains two groups of first year LMD students from Naama University, English Section. The students involved in this action research are enrolled in oral comprehension/expression lectures where CALL resources are essentially employed as tools for the distribution of instructed materials, management and education.

The members involved in this study are sixty (60) first year university students aged between 18 and 21 years old. They are Baccalaureate holders from different streams (Foreign Languages, Life and Natural Sciences, Letters and Philosophy and Humanities). As they all come from state schools, they have the same educational background. Before entering the university, they had all studied English for at least seven years. Their native language is Arabic. French is their first foreign language and English is their second foreign language; however, very limited opportunities were afforded to them to practice English outside the school setting.

First year LMD students are introduced to basic knowledge about English. They took lessons in grammar, phonetics, linguistics, language skills (reading, listening, writing and speaking), research methodology and social and human sciences (see table 3.1.).

ICT is a modular course (that stands for Information and Communication Technologies) in which students are supposed to attain the basic skills to use computers was part of the designed courses; however, it was removed in the caneva of 2015/2016.

3.6.1.2. Learners' Needs Analysis

For the sake of reporting the effects of the action plan, a record of the situation under investigation is considered before and after the change. Therefore, a number of research instruments is used before and after the hypothesized change takes place to examine the effects of the action plan. Prior to the adoption of the action plan, the results revealed a number of needs that the teacher has to reflect on while selecting the suitable courses to the learners' requirements. In this manner, Dörnyei states, "So much is going on in a classroom... Therefore, in order to understand why students behave as they do, we need a detailed and most likely eclectic construct that represents multiple perspectives" (2001a: 13 qtd. in Djebbari 2014: 145). Accordingly, it is necessary to analyze learners' needs before applying the action plan.

The need to train students in the technical skills is considered as an important factor for successful CALL. Consequently, students should be educated to utilize the different CALL resources (such as access to software, hardware and the internet) to direct their own learning in and out of the class. In a contemporary study, Burston contended that Grammar checkers built into word processor software packages had demonstrated its benefits in assisting students to identify errors during their linguistic practice. Such success, Burston stresses, can be achieved when students are well trained to use the software effectively (Chapelle, 2003).

Additionally, Balacheff et al. stressed that the training of students to be technology users improves their performance (2009). This training develops the students' feelings of mastery, expertise, satisfaction and self-confidence, which are all significant conditions for autonomy and accurate performance.

After observation, the researcher has accounted for first year LMD students to conduct this investigation because in their first Semester they

were remarked as shy, dependent on their teachers and sometimes unconfident about speaking the foreign language in front of the whole class, the fact that makes their level of autonomy low during this educational stage. However, after a period, the researcher has observed that students seem more or less use the materials at hand to learn the language and control the listening activities because they have already experienced the use of most of the elementary CALL resources.

Although students at this level still reliant when experiencing new materials but they are eager to listen to authentic recordings, speak and use the language they have studied through CALL. This fact encouraged the researcher to reflect and look for possible solutions that may provide learners with more opportunities to take part in various backgrounds learning the language in an autonomy-supporting environment.

3.7.2. Teachers' Profile

The informants are five teachers who have been teaching English for several years. They are from the foreign language department and more precisely the English section of Salhi Ahmed University Center of Naama. All of them are 'PhD' students preparing their doctorate dissertations. Their experience in teaching English as a foreign language at the level of the university ranges from four to eight years. Two among them have taught English in middle and secondary schools for more than ten years before coming to the university.

Noticeably, the majority of the informants are in charge of teaching oral expression/comprehension modular courses at diverse levels. In addition, they are also responsible for other modules including grammar, phonetics, cognitive psychology, social and human sciences, introduction to didactics and research methodology.

3.8. DATA ELICITATION METHODS

Based on the mixed-methods approach, which requires the joined use of both quantitative and qualitative approaches and taking into account the reflective practice data gathering tools, the teacher-researcher has designed

the methodology of the present investigation. In fact, the quantitative approach is one in which the researcher uses instruments of data gathering that produce numerical information which will be analyzed through statistical methods (Dörnyei, 2007). Accordingly, Jonker and Pennink view the quantitative approach as being, “purely scientific, justifiable, precise and based on facts often reflected in exact figures” (2010: 38).

The qualitative approach, on the other hand, employs rather different criteria, plans of inquiry and methods of data gathering and management. It counts profoundly on data collection instruments that provide non-numerical information which are then treated through non-statistical measures in the form of texts (Creswell, 2012). Therefore, Hancock and Algozzine define it as, “any kind of research that produces findings not arrived at through statistical procedures or other means of quantification” (2006: 86).

Though holding antagonist views regarding the research conduction, a combination of quantitative and qualitative approaches in one investigation results in valued insight, supplementary opportunities for examining hypotheses and complementary data (Jonker and Pennink, 2010). In this inquiry, Given stresses that, “the use of both qualitative and quantitative approaches will provide a more complete understanding of the research problem than either approach alone” (2008: 527).

According to Lodico et al. (2006), the practical orientation of action research requires from researchers to use a combination of quantitative and qualitative measures that are established to suite their settings. Phillips and Carr assume, “action research is often categorized as a qualitative methodology, even though quantitative data may be included. In this sense, action research often mixes methods” (2010: 32).

Therefore, the researcher has selected the mixed-method approach for the present study. The quantitative approach is employed to provide information about degree and incidence and the qualitative one is selected to cope with the participants’ viewpoints and the investigator’s assessment of the studied phenomenon.

The researcher has first explored the studied setting collecting quantitative data through learner autonomy scale used as a pre-test. Throughout this phase, named pre-reflection, the researcher tried to identify the degree to which learners are responsible practitioners directing their own learning in CALL laboratory. Then, both quantitative and qualitative data have been collected in the reflection phase through writing journals, peer and participant observation with the purpose of thinking critically to recognize the problems that affect learners' autonomy in order to reflect for an action plan. Finally, in the post-reflection stage, the impact of the action plan on learners' autonomy is examined through learner autonomy scale as a post-test and post-action plan observational checklist. Additionally, a structured interview has been used as another qualitative research instrument to end up the research process by making the results accessible to teachers for critical discussion.

In fact, the two observational checklists which were considered do not embrace the same items. The pre-action plan checklist was designed to record information from the researcher's perspective before the application of the action plan to reflect critically on the best practices that may promote learners' autonomy. However, the post-action plan checklist was carefully planned to evaluate the degree to which learners are self-initiated and given responsibilities to control their own learning.

Essentially, the researcher's employment of multiple research instruments increase the credibility of the results. Indeed, collecting data from at least three different sources is commonly referred to as triangulation. The latter is strongly recognized as an important concept in action research. Burns (2010) recommends that any research requiring reflection and interpretation has to adapt triangulation. It is defined by Cohen et al. as, "the use of two or more methods of data collection in the study of some aspect of human behaviour" (2000: 112).

Elliot and Adelman (1976) argued that triangulation in action research involves gathering perspectives of the teaching situation from three distinct

standpoints; namely the teacher's observation of the studied site, the learners under investigation and peer observers. The three opinions represent the three points of the triangle.

Following the same principles, the investigator has taken on a multi-method approach to data gathering as means to critically examine and explore different dimensions of the plan adopted to deal with the phenomenon under investigation, to decrease bias initiated by using only one instrument of inquiry and to guarantee the results validity and vigour.

3.8.1. Learner Autonomy Questionnaire

Questionnaires are typically considered as convenient data elucidating methods that offer both quantitative and qualitative information on behaviours, attitudes and opinions from copious informants. For this reason, questionnaires have been extensively used to assess research problems in several fields, including behavioural sciences, social sciences and foreign language education research (Dörnyei, 2007 and J. McDonough and S. McDonough, 2006).

Generally, the questionnaire is a written document that comprises a precise number of questions or statements carefully designed to seek for information suitable to answer research questions and test hypotheses (Jonker and Pennink, 2010). It is well defined by D. Brown as,

Any written instrument that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting them among existing answers (qtd. in Mackey and Gass, 2005: 92).

Dörnyei (2007) assumes that the questionnaire is a suitable data collection method that can be used to obtain three sorts of information depending on how the questions are structured, planned and ordered. It offers factual data about the respondents; behavioural data in terms of actions, life styles and habits; attitudinal data about opinions, beliefs, interests and values.

In fact, there are numerous types of questions and response styles that researchers can select for the design of a questionnaire. Nonetheless, these items must be prudently selected to result in the intended data. In the present investigation, the questionnaire was selected for collecting data from the participating learners in order to examine the first and the fourth research questions and their proposed hypotheses. It was used as both a pre-test and post-test to measure the students' autonomy.

3.8.1.1. Aims of the Questionnaire

While designing a language course, teachers attempt to address two essential goals: linguistic and non-linguistic. Linguistic goals emphasize the development of one's competence to read, write, speak and comprehend, and there are numerous available tests to evaluate these skills. In contrast, non-linguistic goals emphasize rather other aspects of language learning such as autonomy, motivation, self-confidence and self-control. However, a limited number of tests have been introduced to measure these goals.

Autonomy is a significant factor for successful language learning that has been highlighted in numerous theories. Recently, CALL environments have proved to result in increased learner autonomy, but this premise was not always the outcome. The teacher-researcher as reflective practitioner has opted for an action plan as result of reflection for action to promote EFL learners' autonomy in CALL laboratory. The effects of the teacher's reflective practice on learners' autonomy needs to be investigated through the attainment of an incredible quantity of representative data. For the achievement of this objective, the investigator has relied on learner autonomy questionnaire as a test that is administered to learners before and after the adoption of the action plan.

Prior to the intervention, this questionnaire meant to assess the level of learners' autonomy and focus on the difficulties they encounter in CALL laboratory. However, after the intervention, the questionnaire intends to give reliable and valid index of the various autonomy supporting factors of the adopted action plan. The goal is set out to get information about the

participants' level of self-direction while studying through OPG and before. To quote, Mackey and Gass say,

Questionnaires allow researchers to gather information that learners are able to report about themselves, such as their beliefs and motivations about learning or their reactions to learning and classroom instruction and activities-information that is typically not available from production data alone (2005: 93)

To sum up, the present questionnaire is thoroughly designed to find out ideas and impressions about learners' autonomy and collecting data on how they manage to learn English in CALL laboratory before and after OPG. Rating scales in which degrees of response are given to a statement or a question are designed. In this vein, Cohen et al. (2000: 253) say,

Rating scales are widely used in research, and rightly so, for they combine the opportunity for a flexible response with the ability to determine frequencies, correlations and other forms of quantitative analysis. They afford the researcher the freedom to fuse measurement with opinion, quantity and quality.

In the present action research, Likert scale items (named after his inventor, Rensis Likert, 1932) were designed due to its simplicity reliability and flexibility. It is considered as the most well-known type of closed items, consisting a statement and a five-point scale with theoretically equal interval among responses. Respondents have to indicate the extent to which they agree or disagree with something by circling one of the responses ranging from strongly disagree to strongly agree or from very high to very low (Dörnyei, 2007). In fact, the investigator has directed the participants' attention towards the fact that there are no correct or incorrect responses and that their answers will be used for research aims only.

3.8.1.2. Piloting the Questionnaire

Designing a questionnaire is said to be the first method that comes to mind when accomplishing a research work. This instrument, however, requires some careful planning to get the desired data. Thus, prior to

administration researchers often need to pilot or 'field test' the questionnaire that is considered as an integral part for making the necessary adjustment. Indeed, piloting refers to testing by trying the questionnaire out on other participants who are similar to the target sample (Dörnyei, 2003).

In this sense, pilot testing of the questions permits the researcher to gather feedback about how fitting the questionnaire is and whether it fulfils the goal it has been intended for. Accordingly, Creswell said,

A pilot test of a questionnaire or interview survey is a procedure in which a researcher makes changes in an instrument based on feedback from a small number of individuals who complete and evaluate the instrument. (2012: 390)

In fact, a pilot test is a crucial and wise step that has several premises, chiefly to enhance validity, reliability and practicability of the questionnaire. In this vein, Cohen et al. (2000) assume that it serves to,

- ✓ Check the lucidity and the arrangement of the questionnaire items.
- ✓ Gain feedback on the validity of the questions.
- ✓ Eliminate ambiguous and difficult questions.
- ✓ Gain feedback on the selected types of questions
- ✓ Gain feedback on response categories of closed questions.
- ✓ Gain feedback on the numbering and sectionalizing of the questionnaire items.
- ✓ To consider misunderstood or non-completed items.

Based on these premises, learner autonomy questionnaire was piloted prior to administration. Twenty first year EFL students were randomly chosen for the purpose of testing the validity and reliability of the questions and collecting feedback on the practicability of the whole questionnaire. The obtained feedback helped the researcher in making the necessary adjustments in the wording and the layout of the final version. In fact, the pilot testing of the questionnaire was conducted during the second semester

of the 2015-2016 academic year. At the beginning of the academic year 2016-2017, the final copy was ready for administration.

3.8.1.3. The Layout of the Questionnaire

As it has been reviewed in the second chapter, theories on learning hypothesize that autonomy is largely influenced and inspired by a range of factors, such as cognitive abilities, metacognitive awareness, social conditions and affective constructs. Each theory highlighted a number of factors and illustrated how they result in increased autonomy. These factors are intentionally addressed in this questionnaire that is designed for learners experiencing EFL learning in CALL laboratory. The questionnaire, thus, serves as a test that is administered to learners in the same way in two different phases: pre-reflection phase and post reflection phase. It intends to both explore how factors are set out in CALL laboratory to increase learners' autonomy and test the first and fourth proposed hypotheses.

The questionnaire consists of 34 Likert scale items in which statements seek for learners' personal abilities, competences and feelings. The participants were asked to denote the degree to which they agree with the statements.

The scale opening ethically considers the informed consent principle. Therefore, the researcher has informed the respondents about the aim of the questionnaire and requested them to take part in the study by answering a number of questions. In this opening, some instructions, such as putting a tick or a cross on the desired answer, are given to the respondents. It pursues also to gather demographic information about the participants, mainly age and gender. In fact, age and gender are not variables in the present study but they were inserted to indicate that the obtained data reflect different ages and genders.

Afterward, the statements were ordered in three main parts (see Appendix 1), including learners' performance, self-direction test and role of class teacher. The three parts constitute the four main factors highlighted in the major theoretical perspectives and definitions to autonomous learning,

namely cognitive, metacognitive, social and affective factors. Nonetheless, the separation of the different parts was avoided when administering the questionnaire so that the participants will not be biased by titles.

The first part, learners' performance, comprises 12 positive statements addressing the four factors to autonomous learning. Thus, this part intends to find about learners' capacities and competences. Item one aims to identify the students' level of proficiency in CALL materials. Item two investigates learners' evaluation of their own performance. This item is considered to report learners' metacognitive awareness that is a characteristic feature of autonomous learners. As an affective factor, students' interest in learning English in CALL laboratory is investigated in item four. The fact that autonomous learning elicits high levels of involvement is addressed in item five that aims at highlighting the effects of CALL on learners' engagement. Item number eight is inserted to consider willingness that is another affective factor to autonomous learning. Item number twelve is designed according to the cognitive theory, which asserts that learners ability to take responsibility for learning accounts the most for the development of their thinking processes. Thus, it assesses CALL function in enhancing learners' thought processes.

Addressing mainly the cognitive and metacognitive factors, the second part named self-direction test has twelve positive items about learners' ability to take charge of their own learning. The cognitive perspective to autonomy argued that learners' self-regulation is related to planning, monitoring and evaluating of learning experiences. Hence, the researcher has devoted this part to check learners' abilities such as self-awareness, self-determination, evaluation and planning of the learning process in CALL. Moreover, Little's conceptualization of autonomy implies decision-making as a necessary condition. Therefore, some items in this part aimed to investigate the degree to which learners are given responsibilities to make decisions.

Finally, the third part is about the importance or the role of class teacher, containing eight negative items addressing the way learners rely on their

teacher and cope with perplexing situations in the class. In addition, two positive items were included to explore social factors in autonomous learning. As a reflective practitioner, the teacher aimed at developing learners' autonomy in the environment of CALL. Thus, her role in the classrooms is of crucial importance. The ways by which she manages the classroom i.e., offers solutions to problems, organizes the lecture and gives opportunities for learners' self-direction have remarkable effects on autonomous learning. In this respect, the eight negative items tend to explore learners' level of autonomy in relation to the teacher. Thus, these items intended to inquire the way learners deal with difficult tasks in addition to their desirable way of support.

Holec's (1981) most cited definition points out that autonomy is an innate ability that can be assimilated through methodical learning process. The provided feedback and the setting up of social learning are considered as external factors that can promote autonomy. Therefore, their relevance is assessed in the two positive items.

3.8.2. Classroom Observation

The empirical investigations that consider classrooms as research settings are generally known as classroom research. It surveys teachers' practices and learners' experiences in the natural site. Therefore, classrooms are reflected as leading research contexts because of the specific features and circumstances they afford. Classroom inquirers have opted for several data elucidating methods including observation. The latter is considered as a suitable data collection method for investigating educational settings (Dörnyei, 2007). In this respect, Mackey and Gass say,

Observations are a useful means for gathering in-depth information about such phenomena as the types of language, activities, interactions, instruction, and events that occur in second and foreign language classrooms. Additionally, observations can allow the study of a behaviour at close range with many important contextual variables present (2005: 186-187)

Cohen et al. (2007) consider the data attained from observation as eye-catching, as it allows the inquirer to obtain 'live' information from 'live' situation. Hence, classroom observation is an empirical research instrument that offers direct information.

In an action research project, observation is a natural process that plays a significant role in any data gathering procedure (Koshy, 2005). In this context, Burns contended that, "observing and describing have a key role to play in action research" (2010: 57). For reflective practices, Ghaye (2011) postulates that efficient reflective practitioners are worthy at observation. Throughout this research work, observation is not only used as a tool for gathering information about teaching but a stage in a cycle of research to evaluate the effectiveness of the reflective action plan.

In fact, there are several methods by which classroom researchers observe their teaching practices and their learners' learning. The researcher in the present investigation has relied on a combination of structured and unstructured observation. The structured observation is also called observational schedule requires the observer's presence in the observed setting with a precise focus and planning. It necessitates a kind of previous preparation in which intents and hypotheses are specified and the recording tools, such as a checklist or a rating scale, are selected. On the other hand, the unstructured observation does not entail any precise planning rather documenting narrative field notes while observing.

3.8.2.1. Participant Observational Checklist

Participant observation entails the researcher's complete involvement in the observed process. In this type of observation, the investigator becomes an integral member of the observed group, recording the events whilst playing a role in that group. Temporarily, a checklist encompasses that the inquirer selects one of the alternative responses pre-proposed to a question or a statement. Indeed, checklists are used to check or verify if the participants in the studied setting take a number of actions, steps or practices.

Data from CALL laboratory were also collected by participant observation. It was decided that in order to construct a rich, coherent and useful interpretation of assessment with the classroom, it was important for the researcher to ‘notice’ the whole story of reflective practice. This would allow her to become familiar with the context of learning with in the selected sample for the particular reflective teaching practice.

As a highly structured observation, two different observational checklists were employed. The first was designed to emphasize certain points before the action plan and the second was designed to record the situation after the action plan. The two checklists aimed to focus on specific features or conditions related to the target phenomenon and to result in numerical data.

3.8.2.1.1. Observational Checklist before the Action Plan

As a coding system, a checklist has been prepared before the observed sessions to capture aspects of teaching, learning and classroom activities before the researcher’s application of the reflective action plan. This checklist is developed to focus on specific features that may answer the third research question.

After defining the problem of learners’ autonomy in CALL laboratory, the teacher as a reflective practitioner wanted to examine her practices especially those related to fostering autonomy. Based on the criteria proposed by Mynard and Sorflaten (2003a) in order to categorize the activities and experiences used inside and outside the classroom to initiate autonomous learning, this checklist aims to assess the teacher’s practices in terms of

- Giving learners the opportunity to direct their own learning.
- Providing them with activities that develop their self-initiation.
- Making them responsible learners able to evaluate their own learning.

Actually, this checklist is prepared to describe learners’ activities to check the degree to which they are encouraged to be autonomous; however,

it also aims to discover the missing points and the weaknesses in the teacher's practice. The teacher wanted to critically examine her practices to promote EFL learners' autonomy in CALL laboratory.

The checklist contains a number of statements where a range of responses has been proposed for each one forming a scale of 1-4. In that, 4 shows the highest and 1 shows the lowest frequency of the observed opportunities.

'Very seldom' = 1, 'Occasionally' = 2, 'Quite often' = 3, 'Very often' = 4.

The participant observer marked the learners' offered opportunities and encouragement to direct their learning (see appendix 3). The following is an example in which the observer determines the frequency of instructing learners to set learning goals throughout tasks and experiences in CALL environment.

	Very seldom	Occasionally	Quite often	Very often
Encouraging learners to set their own learning goals.	✓			

Table 3.4. A Checklist for the Teacher's Role in Fostering Autonomy

To sum up, this checklist has several purposes. It serves first to record the situation before the teacher's reflective practice. Second, the results analysis of this observational checklist would provide the researcher with the necessary data to reflect for an action plan to deal with the problem of autonomy in CALL laboratory.

3.8.2.1.2. Observational Checklist after the Action Plan

As it has been mentioned previously throughout the second chapter, autonomy is a necessary condition for successful foreign language learning. It has been defined differently by several educationalists. Nonetheless, they all agree that whether being an ability, capacity or competence, autonomy is something that needs to be fostered in the class due to cognitive, metacognitive, affective and social factors.

After collecting data about the teaching/learning situations in CALL laboratory through journal writing and participant observation as part of the

reflective practice, the researcher has found that learners were unable to direct their own learning. This fact necessitated a reflection for action to deal with the problem. As a result, OPG software has been adopted to change the situation.

OPG is featured by the integrative qualities of CALL that are supposed to bring about valuable changes in learners’ autonomy. Consequently, this observational checklist intends to; first, assess the usefulness of OPG as an adopted action plan. Second, it aims to validate the fourth hypothesis (see Appendix 4). The following is a statement from the checklist to notice the effects of OPG on the cognitive factors for increased autonomy.

	Very seldom	Occasionally	Quite often	Very often
OPG attracts learners attracts learners attention.			✓	

Table 3.4. A Checklist for Learners’ Attention in OPG Activities

Overall, this checklist is designed to describe learners’ actions and behaviours to denote OPG efficiency for increased autonomy.

3.8.2.2. Peer Observation

In teaching, peer observation entails a teacher observes another teacher carrying out a task, takes notes on how the task is being done and later on discusses it with the observed teacher (Richards and Lockhart, 1996).

Prior to the application of OPG as a reflective action plan, the researcher has invited some colleagues to observe one or more sessions to describe the teachers’ performance in CALL laboratory and the degree to which learners are autonomous. Thus, the observers are requested to take notes about a number of questions they have already discussed before, including

- ❖ How could you describe my performance in supporting autonomous CALL?
- ❖ How would you describe the role I play in my class?
- ❖ How would you describe my learners’ roles in the class?

The observers visit their partner's class and complete the observation writing a narrative in an agreed form answering the discussed questions based on the events that happen during the observed lessons (see Appendix 5).

This type of observation has been selected to document the teacher's and learners' activities, actions and attitudes from other points of view. It helps the researcher's to reflect and critically examine her practices for the sake of establishing an autonomous CALL environment.

It has to be mentioned at this level that the ethical issues were considered throughout the previously mentioned observations and the students were informed that they were observed. Thus, the observations were overt and the observers have explained the purpose behind their observations before they start documenting the events.

3.8.3. Journal

For collecting qualitative data, the researcher can use a range of methods that are used more extensively in qualitative research. Creswell (2012) assumes that documents are valuable sources of qualitative information. These documents include personal journals to record information about a site or a sample in an investigation. The journal allows the researcher to reexamine, with noteworthy intelligibility, the committed practices.

Action research entails carrying out personal journals by which researchers record their progress and reflections about their practices. In this manner, Cohen et al. acknowledge the use of journal notes in action research to "record issues, ideas, difficulties etc. that arise during the field work" (2007: 313). Similarly, Given (2008) considers journals as written or recorded accounts of emotions, introspection and self-reflection.

There are several types of journals that can be used in action research. Reflective journal is the one employed by the teacher-researcher in the present study. It has been purposefully used to arrest ideas, judgments, reflections, intuitions, emotional state, responses to lesson events or what

Burns (2010) describes as 'stream of-consciousness'. The entry timing of this type takes place immediately after the lesson events but most importantly after deep thinking about what happened. The general questions that the reflective journal answers are:

- What are my reactions to what has happened?
- What are my interpretations of the events?
- What understandings can I devote to these events?

As part of the methodology used, the researcher has adopted the practice of writing semi-structured reflective journal throughout the first semester process of research to reflect critically not only on the teaching method, attitudes, decision-making and management skills but to gain a profound understanding of the teaching situation by answering the main questions raised by this type of journals.

3.8.3.1. Journal Merits and Demerits

Journal writing is employed in the present research work as a classroom investigation procedure to reflect on the teacher's reactions to the events that take place in CALL laboratory. Generally, it is widely recognized in reflective teaching practices. Loughran (1996) anticipates that journal writing helps student teachers develop an understanding about teaching and learning. He further mentions journal writing as a research tool for reflection and a number of its merits including:

- Journal writing helps teachers to reflect on their teaching experiences.
- It provides teachers with the opportunity to learn from their actions and practices.
- It helps the writer to look back on/forward to an issue for reflection.
- It illustrates the thinking, planning and reactions that relate to teaching and the learning of the class.
- It helps the teacher to search areas of inquiry in ways that may not be possible within the time limits of a course

Ghaye (2011), on the other hand, has identified four most common problems while keeping a written journal:

- The problem of procrastination. This issue occurs when teachers treat journal writing as unfitting.
- The problem of unreflective entries. There are no measures while attempting to record the events.
- The problem of decreased enthusiasm. To encourage students' learning, teachers need to be engaged and arrested.
- Unwillingness to reflect. Reflecting on practices is not only a cognitive but also an affective, moral and ethical process that requires a careful consideration of what has been written.

Journaling is opted for to help the researcher check her practices and notice patterns that may be unnoticed. However, its use has been surrounded by contemplation and cautionary measures.

3.8.3.2. Teacher's Journal: Getting Started

As an action researcher, the teacher has spent a good deal of time reflecting and thinking about her own practice for certain purposes. One amongst the purposes is to prove the usefulness of reflective practices in developing teachers' performance to support autonomous learning. This is certainly, what has been hypothesized previously for the second research question. The teacher's reflections are often recorded in journals at the end of each session. In this sense, the teacher's journal is used to address the second research question.

Through semi-structured reflective journal, the researcher attempted to foster reflection and self-examination. The entries are recorded in a sample prepared in advance by the researcher using the computer (see Appendix 2). The next table clearly illustrates how the recorded accounts of the teaching experiences are entered in the sample.

Reflective journal		
Questions Addressed	Teacher's Responses	Aim
What are the problems in my class?	<ul style="list-style-type: none"> • • • 	Check and notice classroom problems.
What are my reactions to the noticed problems?	<ul style="list-style-type: none"> • • • 	Look back on/forward to a defined problem for the sake of reflection
What are my interpretations to the events?	<ul style="list-style-type: none"> • • • 	Evaluate the teacher's practices in perplexing situations.
What understandings can be accumulated from the events?	<ul style="list-style-type: none"> • • • 	Develop an understanding about teaching.

Table 3.3. Journal Sample

Based on this pre-prepared sample, the researcher wrote her accounts of the teaching experience in CALL laboratory.

Throughout the first semester of the academic year 2016-2017, the researcher recorded her teaching practices with the concerned sample. After each oral comprehension/expression course, the teacher-researcher has devoted 15 to 20 minutes to jot down her answers to the defined questions. At the end of the first semester, the teacher analyzed the journal entries as a basis for reflection for action that resulted in the use of OPG Software as an action plan to deal with the problem of learners' autonomy in CALL laboratory.

3.8.4. Teachers' Interview

Interviewing is a well-known qualitative data attainment method that offers the investigator with a rich and personalized information. Interviews entail the interviewer's (researcher) presentation of an oral question followed by an oral verbal response replied by the interviewee (Kothari, 2004).

Interviews can be conducted in several ways, such as group interviews, telephone interviews and email interview. For the present investigation, the researcher has selected one-to-one interview in which the interviewer asks and records answers from only one respondent at a time. In this vein, Kvale states,

The typical qualitative interview is a one-to-one professional conversation that has a structure and a purpose to obtain descriptions of the life world of the interviewee with respect to interpreting the meaning of the described phenomenon (qtd. in Dörnyei, 2007: 134)

Depending on the degree of structure in the process, one-to-one interviews involve three main types, including structured, semi-structured and unstructured. A structured interview, which requires the use of a number of questions that are prepared in advance and administered to all the respondents in the same order and format, is designed for teachers who observed the researcher's courses in CALL laboratory. After observing a number of sessions and completing field notes, the researcher interviewed teachers to collect supplementary data suitable to provide answers to the third research question and thus test the rationality of its proposed hypotheses. Therefore, the main objectives set out to this interview are

1. To deal with the teachers' viewpoints concerning the use of reflective practices in developing new applies in EFL classrooms.
2. To ask teachers if they make use of reflective teaching to deal with the problem of learners' autonomy in CALL laboratories.

3. To highlight the teachers' expectations from using reflective practices in their classrooms.
4. To end up the research by exhibiting the attained results for critical discussion.

After selecting the structured format of the interview, the researcher has carefully considered a sequence of stages starting primarily with the ethical considerations and principally the informed consent. Though the interviewed teachers know the researcher's aims and objectives since they have already observed her session, but they were asked for permission to be part of the study through interviewing.

Secondly, an interview guide, that contains a number of questions of diverse types, has been arranged. Table 3.5. summarizes the different forms and functions of the interview items.

	Factual Questions	Demographic characteristics (e.g., age, sex), Level of education Teaching experience
Types of Questions	Close-ended Questions	Dichotomous questions which entail a 'yes'/'no' response. Rating scale in which degrees of response are offered in choices to a given question or statement. Multiple choice questions in which a range of alternative responses is prescribed
	Open-ended Questions	A free expression, of an opinion based on the respondents' own words

Table 3.5. The Different Types of Interview Items.

Accordingly, closed questions are fast and easy to respond as they offer prescribed alternatives. These questions are also easy to code and useful for gathering quantitative data. On the contrary, open-ended questions are difficult to code as they provide the participants with the opportunity to express their own explanations and clarifications, and suggest new problems. In this sense, diverse responses may be offered which makes it a

hard task for the researcher to code and interpret them. Thus, the data they provide are of qualitative nature. It has to be mentioned at this level that the nature of the questions, their wording and order are responsible factors for the validity and reliability of the collected data

The first two items of the interview have been designed to get factual information and help the interviewees to relax and open up. The following questions are mainly content items selected to seek for the interviewees' opinions, evaluations and performance. Finally, the closing question has been carefully planned to allow the interviewed teachers to have a final say (see appendix 6).

Considerably, the researcher has selected note taking as a recording tool, hence a space has been left after each question to take down the interviewees' responses.

3.9. CONCLUSION

Notwithstanding the challenging requirements of the technology-supported learning environment, it has been observed and regretted that adult learners of English as a foreign language rarely hold control over their learning and still have difficulties that hinder their autonomous learning. Hence, it was thought that the adoption of an action plan as a reflective practice might promote learner autonomy. Therefore, in this chapter, the researcher as a teacher has adopted OPG Software as a result of reflection for action to help EFL learners of Naama University Centre develop a sense of responsibility that would allow them to direct their own learning.

This chapter embodies the main steps followed by the researcher while collecting primary data. It introduces the main motives that led to the use of action research in addition to a full description of the adopted action plan. Moreover, specific procedures that are necessary for the adoption of OPG are presented and the sample used to find out satisfactory answers to the research questions is introduced.

Then, the researcher has moved to listing the research instruments used to gather quantitative and qualitative data, namely journal writing, participant and peer observation, interview and questionnaire. Furthermore, detailed descriptions of the employed instruments have been provided in addition to the aim behind their use.

The following chapter will analyse and discuss the findings of each research instrument in addition to the interpretation of the main results according to the research questions and hypotheses formerly raised.

Chapter four

Research Results Analysis and Interpretation

CHAPTER FOUR

Research Results Analysis and Interpretation

4.1. INTRODUCTION

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4.2.2. Quantitative Data Analysis

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4.5.3. Teachers' Interview

4.6. DATA ELUCIDATION AND SUMMARY OF THE MAIN FINDINGS

4.7. CONCLUSION

4.1. INTRODUCTION

The previous chapter presented the action research design, which involved a number of stages, including planning, observation, action and reflection along with a number of research instruments, namely reflective journals, participant and peer observation, teachers' interview and learner autonomy questionnaire. The main results obtained from the five data attainment methods are going to be systematically analyzed, discussed and interpreted in this chapter in hope to provide fruitful responses to the raised questions.

The present chapter stands for the practical part of the study that encompasses the joint use of both quantitative and qualitative data analysis methods. Therefore, the results analysis will be reported in the present chapter in which the investigator attempts to analyze and interpret the findings. It summarizes the main results and discusses the research questions raised at the onset of this investigation.

The researcher emphasized the idea of how subjects behaved or performed before and after adopting the reflective action plan, displaying learners' autonomy either through descriptive statistics of checklists and questionnaire results or language based analysis of reflective journals, peer observation and teachers' interview.

The present action research aimed at investigating the efficiency of teacher's reflective practice in endorsing learners' autonomy in the environment of CALL. Five data collection methods were used to inquire four research instruments. The following table displays the way the researcher devoted research instruments to research questions.

Research Questions	Research Instruments
Do EFL learners inevitably benefit from the autonomy-supporting feature of CALL?	Learner Autonomy Scale (Pre-test)

Can reflective teaching practices be useful in developing teachers' performance to support autonomous CALL?	Pre-action Plan Checklist Reflective Journal Peer Observation
Which reflective practices best promote EFL learners' autonomy in CALL laboratory?	Peer observation Reflective Journal Teachers' Interview
What are the characteristics of the action plan that promote learners autonomy in CALL environment?	Post-Action Plan Checklist Learner Autonomy Scale (Post-test)

Table 4.1. Inquiry Process

Accordingly, each research question will be studied along with the analysis of its designed instrument in an attempt to draw clear conclusions. Essentially, the findings will be analyzed in three main stages following the chronology of the teacher's reflective practice.

4.2. METHODS TO DATA ANALYSIS

As it was mentioned, the present study is an action research opted for to find out the correlations between reflective teaching, CALL and autonomous learning. In order to make a sense of the research results, the researcher needs to be acquainted with the language and data analysis procedures to critically interpret the gathered data. As Dörnyei (2003) points out, accumulating the compulsory data is 'half the battle'; hence, investigators need to tackle the other half that involves the analysis of these data.

Indeed, data analysis is a research procedure that entails organizing, simplifying, transforming and summarizing those data. Cooper and Schindler identify the process of data analysis as, "editing and reducing accumulated data to a manageable size, developing summaries, looking for patterns, and applying statistical techniques" (qtd. in Jonker and Pennink, 2010: 142).

Since the selected data attainment instruments were carefully premeditated to result in quantitative and qualitative information, the analysis of these data will be quantitative and qualitative as well in hope to

control the diverse sets of data. This mixture is generally considered to carry out an analytic-deductive research design.

4.2.1. Qualitative Data Analysis

Qualitative data analysis is, in general, a simple process that entails a complete comprehension of the gathered data for the sake of deducing responses to the research questions. Dawson defines it as, “a very personal process, with few rigid rules and procedures” (2009: 116). Furthermore, he outlines three necessary procedures to analyze data qualitatively:

- ❖ Reflecting on the data throughout the process of assembling.
- ❖ Mediating the value of the collected data.
- ❖ Interpreting and deducing data to facilitate the readers’ comprehension of the studied phenomenon.

In this vein, Dörnyei (2007) stated that qualitative data analysis is a language-based analysis since the qualitative results are converted into textual forms. In fact, results from qualitative research instruments are of an inductive and explanatory nature that is referred to as ‘interpretative’ or ‘heuristic’. The rationale for using the qualitative approach in this investigation is to describe and portray patterns of learners’ self-directedness in CALL laboratory and understand the teacher’s role in promoting those patterns.

Qualitative data analysis is used in this action research for analyzing the results of reflective journals, peer-observation and teachers’ interview. The qualitative analysis will allow the researcher to closely examine her performance in promoting autonomous CALL and thus develop other practices to cope with learners’ autonomy.

4.2.2. Quantitative Data Analysis

Quantitative research is often associated with large scales, but can also be used with small scales. It is suitable for case studies, action research, correlational and experimental researches. It intends to explain phenomena

by gathering numerical data that are then analyzed using mathematically based methods.

Quantitative data analysis is employed in the present research work to provide an objective overview of the obtained data. Given (2008) ascertained that quantitative data analysis is convenient in enhancing the validity, credibility, honesty and transferability of the findings. It includes the employment of a number of mathematical procedures, termed as statistics Dörnyei (2007).

Statistics are of two types: descriptive and inferential. Descriptive statistics, as its name implies, it describes and presents the gathered data. Its purpose is to review and expose the attained data in numbers and figures. According to Burns (2010), reporting data through descriptive statistics can be done through two different ways:

- Measures of central tendency, in which one measure is given to the range of quantitative results in three different ways:
 - The mean that is the average score.
 - The mode that is the score obtained by the greatest number of people.
 - The median that is the score obtained by the middle participant in a categorized group of people.
- Measures of dispersion or variability, in which a measure is given to show how numbers disperse across a set of data. dispersion can be shown through:
 - The variance that is a measure of how far scores are from the mean.
 - The standard deviation (SD) that is a measure shows the dispersal or range of scores. SD represents the average of the distance of each score from the mean.

Inferential statistics, in contrast, intend to generalize from a sample to the entire population (Given, 2008). This type includes hypothesis testing,

difference testing and correlations. Based on the objective of reviewing a thorough picture of the studied phenomenon, the two types of statistics were considered.

Nevertheless, analyzing quantitative data through mathematically based methods entails a number of procedures that embrace arranging the collected data, reporting the findings then deliberating them. Hence, the researcher has followed a number of connected stages planned by Creswell (2012) while dealing with the observational checklists used in classroom observation, the closed questions mentioned in the interview and learner autonomy questionnaire.

- ✓ Phase one, named as coding, involves organizing the data for analysis and assigning numeric scores to the data. Kothari defines it as, “assigning numerals or other symbols to answers so that responses can be put into a limited number of categories or classes” (2004: 123).
- ✓ Phase two entails the use of both descriptive and inferential statistics for analyzing data. Descriptive analysis encompasses calculating percentages and scores, whereas inferential analysis entails making inferences from the studied sample to wider population. In fact, investigators have suggested three inference modes.
 - Abduction: suggesting a hypothesis after reviewing observational data.
 - Induction: testing the suggested hypothesis.
 - Deduction: is the one that is selected for the present study. It involves suggesting a hypothesis based on a specific theory, selecting a representative sample, gathering quantitative information, testing the suggested hypothesis then generalizing.
- ✓ Stage three includes reporting the statistical results in tables, charts and passages that offer exhaustive explanations after each table or chart.

- ✓ Stage four takes account of data interpretation with reference to the literature review.

In the present action research, the quantitative approach is utilized to analyze learner autonomy questionnaire, observational checklists and some questions of the interview. After the process of qualitative data coding, the researcher purposefully established associations between the different types of data, for the sake of finding reliable answers to the research questions. Therefore, the qualitative data will be listed in relation to the obtained quantitative results.

Indeed, action researchers have to generate a coherent story from all the gathered data to elucidate the research procedure. Thus, the following table reviews the timeline of this inquiry.

Procedure	Time
Learner autonomy questionnaire	The onset and end of the academic year
Reflective journal	Throughout all the first semester
Pre-action plan checklist	Throughout the first semester
Peer-observation	Throughout the first semester
Post-action plan checklist	Throughout the second semester
Teachers' interview	The end of the academic year

Table 4.2 Action Research Procedure

It is worth reminding that the researcher has opted for Kemmis and McTaggart (1988) model of action research. However, the analysis of the obtained data will be reviewed moving principally through three main stages including: the pre-reflection phase, which stands for the planning phase. The reflection phase corresponds to the action phase, and the post-reflection phase stands for the observation and reflection phases of the model.

4.3. ANALYSIS OF THE PRE-REFLECTION PHASE RESULTS

The essential assumption underlying this thesis is that any event that occurs in educational settings can be employed to cultivate a profounder understanding of the teaching operation. A classroom teacher may fail to manage a certain event; however, it can be used as a basis for critical reflection. The low autonomy level in CALL laboratory has long perturbed the teacher-researcher who decided to use her contemplations of and reactions to learners' dependence. Thus, several methods have been employed to gather full information about learners' lack of self-direction in order to develop strategies for intervention. In this chapter, a number of methods is used to investigate classroom teaching and learning.

As a planning phase, the pre-reflection stage sought to identify the learners' level of autonomy in CALL laboratory through administering learner autonomy scale as a pre-test. Accordingly, the data obtained from learner autonomy scale will be presented first, and then interpreted to test the first proposed hypothesis.

Prior to analysis, a description of the classrooms sessions before the adopted action plan including both teacher's and students' performance in CALL laboratory would be of crucial importance to allow a better understanding of the presented data.

4.3.1. CALL Sessions During the First Semester

The provided language laboratories are platforms designed especially to teach interactive activities. In the language laboratory, the teacher can control all the learners' computers distantly including turning on/off, restarting, accessing to all software programs and thus controlling the learners' performance and outcomes.

For the development of the students' oral comprehension and expression skills, the teacher-researcher has designated a number of CALL resources for enhancing listening comprehension, speech-making and oral communication. Throughout the first semester, the teacher repeatedly provided explanations and illustrations notifying the students that they will

receive some lectures to develop their listening and speaking skills by means of CALL programs such as Windows Media Player and Word Processors. Then, they have to demonstrate comprehension and communicate through a number of activities.

Regarding the listening skill, the teacher-researcher selected some learning experiences in which pieces of recorded speech and videos are sent to the students' personal computers via video steaming. Once they receive the recording from their teacher, learners open it using video steaming. They can listen and watch the video or recording using their headphones and screens. In this way, each learner can listen and play back the material, the act that can enhance autonomous learning. The students are required to listen and comprehend the material delivered to them and discuss with their teacher and peers. Accordingly, the used CALL materials are screens, headphones and mice as Hardware devices and Windows Media Player as a Software.

Concerning the speaking skill, the teacher asked the students to prepare a free talk using Microsoft Office PowerPoint and present it in front of their peers using the Data Show. The presentations have to be prepared in advance; however, before engaging students in this experience, the teacher has described the entire process in details, dealing especially with the main steps of planning an effective presentation that has to embrace pictures, graphics, sounds and videos. In the laboratory, the presentations have to include a talk explaining the main slides followed by a discussion that included the audience (i.e., teacher and students) comments and questions. In this way, CALL materials are used for PowerPoint presentations only and the audience have no practice of these materials.

The teacher-researcher has followed this methodology all through the first semester, and it is the methodology she used to work with before. The teacher selects an audio/video material being paired with comprehension tasks for the oral comprehension course. Whereas, for the oral expression course, she asks students to use multimedia computing as a basis for free talk

presentations. To put it in a nutshell, the only CALL Software programs used in oral expression courses are Windows Media Player and Microsoft Office PowerPoint.

4.3.2. Learner Autonomy Questionnaire (Pre-Test)

Questionnaires are convenient methods of collecting data about affective extents of teaching and learning, as thoughts, attitudes, motivation, and preferences, which then enable a teacher-researcher to gather an enormous amount of relative data in a short period of time (Richards and Lockhart, 1996).

As a quantitative data attainment method, learner autonomy questionnaire is composed of a number of Likert scale items (see Appendix 1). Following steps reviewed in section (4.2.2.), in the coding phase, each item is assigned a number as identification. Response options, in addition, are given numbers for scoring purposes. In this sense, the coding frame of the scale responses is: 'strongly disagree' = 1, 'disagree' = 2, 'neutral' = 3, 'agree' = 4, 'strongly agree' = 5.

➤ *Learners' Performance*

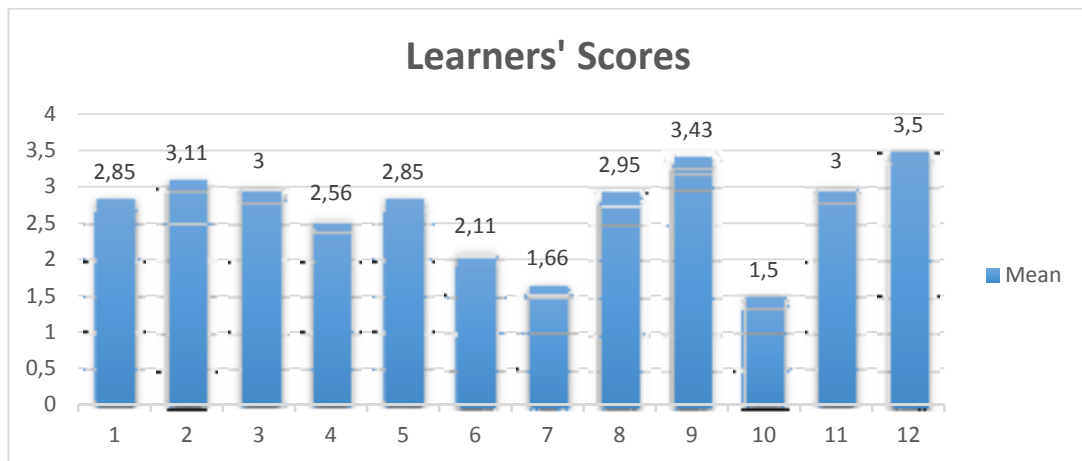
The scale first part contains twelve items carefully designed to identify learners' capacities and competences that may denote their autonomy within the classroom setting. The following table summarizes the main results achieved.

Item	Statement	Mean
1	I can use the computer on my own.	2,85
2	I learn English better in CALL laboratory.	3,11
3	I enjoy learning English in CALL laboratory.	3
4	Learning in the laboratory sustain my interests.	2,56
5	I am often engaged in CALL activities.	2,85
6	I feel that I am effective in CALL laboratory.	2,11
7	I like trying new things in CALL laboratory.	1,66

8	CALL assignments increases my willingness to continue learning.	2,95
9	I learn better when working with colleagues	3,43
10	I often help my colleagues to overcome obstacles	1,5
11	CALL atmosphere is energizing.	3
12	CALL assignments develop my reflective thinking.	3,5

Table 4.3. The Mean of Learners’ Performance Pre-Test Scores

The following bar graph clearly presents the learners’ performance scores



Bar Graph 4.1. Distributing Learners’ Performance Pre-Test Scores.

The mean of the total learners’ scores is 2,71, and the standard deviation is 0, 71 as it is shown in table 4.4.

	Mean	Standard Deviation	Variance
Learners Performance	2,71	0,71	0,50

Table 4.4. Central Tendency and Variability for Leaners’ Performance Pre-Test Scores.

The table demonstrates that learners’ performance in CALL laboratory at the beginning of the first semester is under the average. In this concern, the

SD defines the way the realized scores are dispersed around the mean of the target group. When the SD is low, the scores are closed to the mean and the group is homogeneous. However, when the SD is high, the score are far from the mean and the group is heterogeneous. The results displayed in the table demonstrate the homogeneity of the studied group.

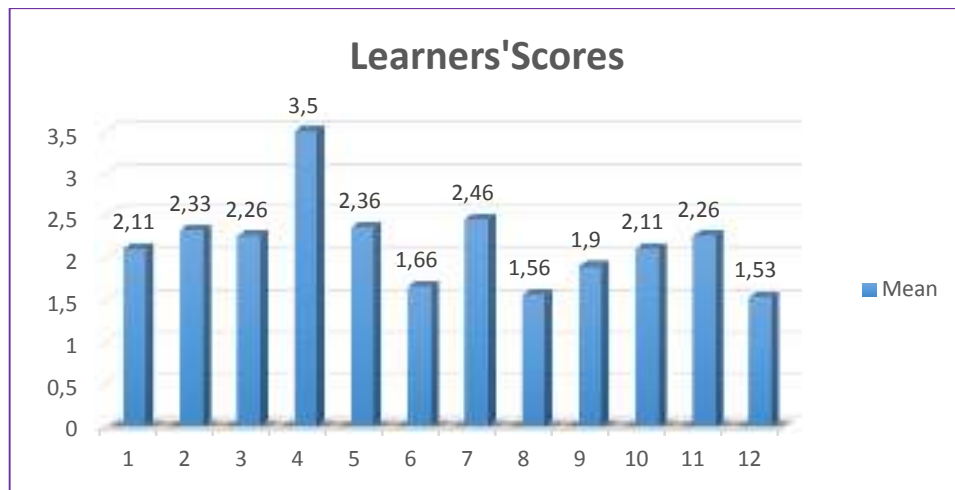
➤ *Self-Direction Test*

Based on the cognitive perspective to autonomous learning, the second part of the scale consists of twelve statements. It intends to test and examine learners' ability to direct their own learning in addition to the extent to which they are afforded with responsibilities to take part in the planning, monitoring, and evaluation of the learning experiences.

Item	Statement	Mean
1	I usually set my own goals for each session.	2,11
2	I like activities in which I can learn on my own.	2,33
3	I use other CALL resources rather than the ones available in the laboratory on my own.	2,26
4	I check new words by looking them up in e-dictionaries.	3,5
5	I would like to select the materials for my CALL lessons.	2,36
6	I use my own way to do CALL assignments.	1,66
7	I would like to participate in the decisions of what to do in the lesson.	2,46
8	The teacher should give me regular tests.	1,56
9	I know my weakness and go for it.	1,9
10	If I cannot understand during the session, I can learn working myself.	2,11
11	If I have missed a session, I am responsible for it.	2,26
12	I have my own way of assessing my performance.	1,53

Table 4.5. The Mean of Learners' Self-Direction Pre-Test Scores

These scores are visually demonstrated in the following bar graph



Bar Graph 4.2. Distributing Learners’ Self-Direction Pre-Test Scores

In this sense, the mean of the total learners’ scores in the self-direction test is 2,17, and the standard deviation is 0,58 as it is presented in table 4.6.

	Mean	Standard deviation	Variance
<i>Self-Direction Test</i>	2,17	0,58	0,34

Table 4.6. Statistical Description of Learners’ Self-Direction Pre-Test Scores

This table demonstrates that learners’ Self-Direction capacities in CALL laboratory are below the average.

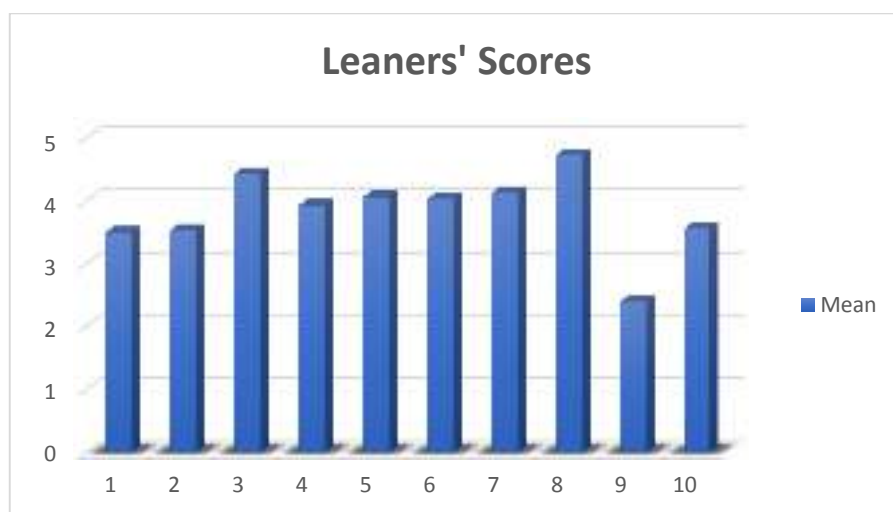
➤ *Role of Class Teacher*

Ultimately, the last ten statements were about the importance of the role of the teacher in CALL laboratory. This part addresses the feature of learner-centeredness, and the results are presented as follows.

Item	Statement	Mean
1	I feel embarrassed when I experience a new activity.	3,5
2	I cannot do an activity if the teacher does not explain it several times.	3,53
3	I learn better, when the teacher explains several times.	4,43
4	I feel confident when the teacher is beside me while doing assignments.	3,93
5	I can learn only with the help of my teacher.	4,06
6	My teacher has always to guide me.	4,03
7	I learn better only when the teacher gives me feedback	4,13
8	I seek for my teacher's help only in private and not in front of my classmates.	4,73
9	I like the assignments where I can work with others.	2,4
10	I hesitate to take decisions alone.	3,56

Table 4.7. The Mean of Learners' Ratings of the Role of Class Teacher in the Pre-Test

Bar graph 4.3 illustrates the distribution of ratings over learners' views of the importance of class teacher in the learning environment.



Bar Graph 4.3. Distribution of Learners' Ratings of the Importance of Class Teacher in the Pre-Test

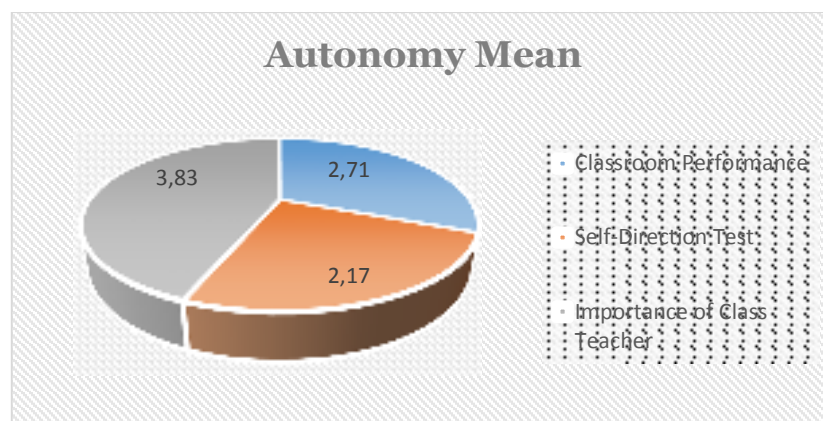
The mean, the standard deviation and the variance of the total students' ratings of the role of class teacher in CALL environment are displayed in table 4.8.

	<i>Mean</i>	<i>Standard Deviation</i>	<i>Variance</i>
<i>The Role of Class Teacher</i>	3,83	0,63	0,40

Table 4.8. Measures of Learners' Ratings of the role of Class Teacher in the Pre-Test

These results demonstrate that when it comes to the role of the teacher in the laboratory, learners show dependence and reliance that are apparent in their scores.

Accordingly, the overall autonomy mean is 2,90 which determine a low level of autonomy in CALL environment. To summarize the findings, the following pie chart illustrates the learners' autonomy mean in classroom performance, self-direction test and reliance on class teacher.



Pie Chart 4.1. The Overall Autonomy Pre-Test Mean

4.3.3. Data Interpretation

According to the presented scores, one may deduce that learners' autonomy be it due to cognitive, metacognitive, affective or social factors is generally rated as low in CALL laboratory before the teacher's critical reflection on her practices. The presented statistics demonstrate that learners'

general beliefs about themselves are below the average. The majority of learners rely on their teacher to accomplish CALL assignments. They also show decreased cognitive and metacognitive abilities to hold and have control over their learning. They avoid to be noticed by their peers as they lack necessary competences that make them self-confident learners. All these beliefs are assumed to be reasons why learners did not benefit from the autonomy-supporting feature of CALL.

Therefore, the present findings confirm the low level of learners' autonomy in CALL laboratory that was hypothesized for the first research question. Learners' abilities to direct their learning seem to be weak as a low mean was scored 2,17. As far as classroom performance is concerned, the mean of the students' scores was 2,71 which points out a below average of taking charge of CALL assignments. As for the importance of class teacher, the result of 3,83 as a mean indicates the teacher centeredness over the learner-centeredness. Learners depend on the teacher's support and without which they cannot continue learning.

As a critical thinker, the teacher reflected on a possible explanation that may elucidate the learners' dependency. As a result, the assigned activities along with the teacher's methodology that do not provide learners' with any opportunity to take roles and be responsible practitioners would be an interpretation of their low level of self-direction. Thus, the allocated leaning experiences that do not benefit from CALL qualities are answerable for the learners' dependence on their teacher.

4.4. THE REFLECTION PHASE RESULTS ANALYSIS

The desired goal of the present thesis is make use of reflective teaching practices in order to have students develop a level of self-direction in CALL laboratories. Reflective practices can be seen as learning tools from one's own experience. In this Manner, Raya and Vieira state that promoting learners' autonomy requires teacher inquiry and reflective practice, accordingly they assume, "Reflective inquiry can be promoted in a variety of ways, for example

through participant observation, reflective dialogue and records, questionnaires and interviews, self/co-assessment, portfolios and journals” (2014: 46).

Throughout this thesis, a number of practices have been incorporated as part of the teacher’s reflection for action. Observation, in general, be it participant or non-participant and journal entry are used as reflective practices for the sake of collecting information about teaching. After the questionnaire administration, the teacher as participant observer has completed the pre-action plan checklist during eight consecutive classroom sessions. Meanwhile, the researcher invited a number of peer teachers to observe her practices in CALL laboratory in order to have data of diverse sources. Afterwards, the teacher started keeping reflective journals as another reflective practice. A total of 15 entries for 2 groups were written in the first semester before the teacher’s intervention.

Therefore, the data obtained from the three practices of reflective teaching are going to be analyzed in this section following the order of their conduction. In this sense, the findings of the pre-action plan observation checklist will be reviewed first, followed by the peer observation results, then an examination of the journal entries’ results is going to be presented lastly.

4.4.1. Pre-action Observation Checklist Results

After defining the problem of autonomy in learners’ performance, an observational checklist was conducted by the researcher to explore the missing points in the classroom activities that are responsible for the learners’ lack of responsibility, self-initiation and decision-making.

While teaching, the checklist guided the teacher as a participant observer to note the frequency of the observed autonomy supporting opportunities for the sake of reflection. Accordingly, Loughran (2005: 8) states, “a valuable extension to ‘guided reflection’ is the observation of one’s own teaching”. Thus, the obtained results from this checklist are going to be used to bring back the teacher-researcher’s practices, think about it and lastly evaluate it.

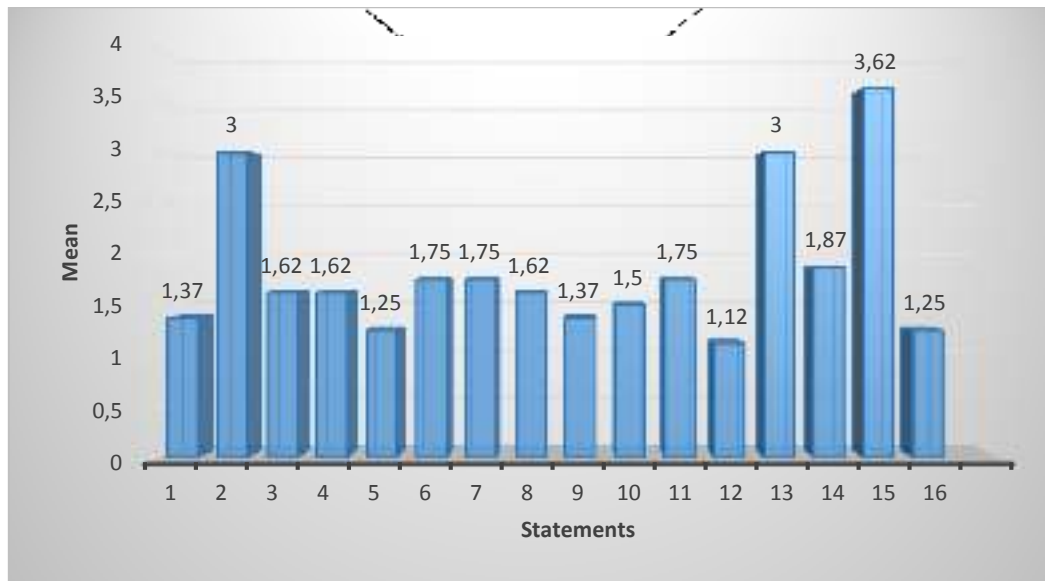
As a first analyzing step, a coding frame that identifies the denotation of the scores for each statement is accumulated. Thus, each alternative response option is assigned a number as identification. In this manner, the coding frame of the statements' responses is

'Very seldom' = 1, 'Occasionally' = 2, 'Quite often' = 3, 'Very often' = 4.

N that is the number of scores in a set, in this case is 8. Table 4.9 reflects the mean, median and mode for the frequency of the observed autonomy related factors and opportunities.

Statements	Mean	Mode	Median
1. <i>Offering choices.</i>	1,37	1	1
2. <i>Giving encouragements.</i>	3	3	3
3. <i>Providing hints.</i>	1,62	2	2
4. <i>Offering rationales.</i>	1,62	2	2
5. <i>Encouraging learners to set their own learning goal.</i>	1,25	1	1
6. <i>Generating a self-access facility in the classroom</i>	1,75	2	2
7. <i>Encouraging learners to develop critical thinking skills</i>	1,75	2	2
8. <i>Encouraging learners to create extension into learning experiences.</i>	1, 62	2	2
9. <i>Encouraging learners to predict how well they are progressing.</i>	1,37	1	1
10. <i>Instigating self-assessment</i>	1,5	1	1,5
11. <i>Encouraging cooperative work.</i>	1,75	2	2
12. <i>Fostering peer assessment</i>	1,12	1	1
13. <i>Students' listening</i>	3	3	3
14. <i>Students' talk</i>	1,87	2	2
15. <i>Being responsive to students questions</i>	3,62	4	4
16. <i>Encouraging learners to use CALL materials outside the classroom.</i>	1,25	1	1

Table 4.9. The Teacher's Observed Autonomy-Related Opportunities
The mean scores are visually presented in Bar Graph 4.4.



Bar Graph 4.4. The Mean of the Observed Autonomy Related Opportunities

The statistics above demonstrate that the most frequent opportunities are giving encouragements (3), students listening time (3) and being responsive to students engendered enquiries (3,62). However, the frequencies of the autonomy supporting factors as offering choices (1,37), encouraging learners to set their own learning goals (1,25), generating a self-access facility in the classroom (1,75) and instigating self-assessment (1,5) are all below the average. These numbers point out that the low autonomy level assessed in learner autonomy scale (used as a pre-test) is due to the lack of classroom encouragement to set goals and the offered opportunities to hold responsibility over learning.

To sum up, the pre-test and checklist results have all demonstrated a low autonomy level resulting mostly from the accessible learning experiences. The teacher's practices in CALL laboratory do not provide learners any space to make choices, set their own goals, develop critical thinking skills, create extension into tasks and activities, assess their learning, learn socially or even talk and express.

As a reflective practitioner, the teacher asked the questions of, why do I teach this way? After reflecting on this question, the teacher realized that placing the students in CALL environment is not enough for developing their autonomy, but she has to act in a certain manner.

The attained results indicated a problem that necessitates the teacher's thinking about her actions to search for the paramount trail that leads to improved learning. After reflection, the state of doubt and uncertainty lays in the methodology used and the selected materials. Henceforth, reflective practice is advantageous to consider all the existing components that form the content and the context of learning. Consistent with the second proposed hypothesis, this conclusion demonstrates the efficiency of reflective practice in recognizing the missing points underlying the learners' low autonomy level in CALL laboratory.

4.4.2. Peer Observation Results

Peer observation is a form of partnership by which teachers observe each other's practice to develop understandings about one's own teaching performance and promote reflection. Throughout this research work, peer observation is used as a reflective practice to identify weaknesses in order to develop an action plan for further improvement.

After inviting the observers randomly from the English pedagogic staff at Naama University Center, four teachers have accepted the researchers' invitation for observation. The invited teachers have conducted seven observations. Each teacher has observed two different sessions; whereas one teacher has done only one observation that was synchronized with another observation. The researcher has given them a printed designed form containing the specific aspects of performance to be observed in order to record their feedback (see Appendix 5).

Immediately after the observed sessions, the observers have given the designed form to the researcher. In fact, the designed form consists of three parts. The first part contains general information about the observation

including name of the instructor, the observers' coding frame (as identification each observer is assigned a number i.e., Observer 1, Observer 2, Observer 3, Observer 4), date, time of class and the number of the attendant students. These information allowed the researcher to analyze each observers' feedback alone.

The second part of the designed form comprises three questions about the aspects of practice to be observed. Each question is going to be analyzed separately according to each observer.

- *How could you describe my performance in supporting autonomous CALL?*

The observers' evaluations of the teacher's performance in supporting autonomous CALL were largely converged. After observing two different sessions, observer 1 noted that the teacher's selection of the learning experiences did not support self-directed learning or offer opportunities to make choices. Furthermore, the chosen activities were inappropriate to the autonomy supporting quality of CALL, as they did not entail the use of the available materials and resources.

Observer 2, throughout two observed sessions, noticed the limited use of CALL resources and the inclusion of ordinary activities that did not necessitate CALL laboratory. It has been also noted that the offered experiences were unfitting to CALL environment and did not promote critical thinking skills.

After conducting two observations, observer 3 evaluated the teacher's performance in promoting autonomy in CALL environment as unsuitable due to the nature of the presented activities that did not effectively use CALL materials to support self-directed learning. Observer 2 has also noted the teacher's continuous help and assistance that did not advocate autonomous learning.

In one observation, observer 4 noticed that the teacher presented a well-organized course through CALL facilities; nonetheless, the students did not utilize CALL materials for practice. It has been also marked in this observation that the teacher did not encourage the students' access to the available CALL resources.

➤ *How would you describe the role I play in my class?*

The role the teacher plays in the classroom can identify the degree to which learners are autonomous. The observers' descriptions of the teacher's role in CALL environment demonstrated a teacher-centered classroom. Observer 1 portrayed the teacher as an authoritative who follows an arranged lesson plan, provides knowledge and monitors the learning process. In the two observation forms, Observer 1 remarked that the teacher was responsive to the students' continuous questions through modeling, demonstrating, providing feedback and re-teaching when necessary.

Observer 2 described the teacher as the sage on the stage who gives directions, explains several times and guides every student. Observer 2 has also noticed that the teacher was reactive to learners commands but did not encourage setting goals and peer assessment, which are the two ideals that can foster autonomous learning.

Observer 3, in the two observed sessions, marked the teachers' provision of directions and illustrations. However, the written responses to the teacher's role in CALL environment revealed that the teacher did not provide rationale, foster responsibilities or encourage self-directed learning. Along with observer 3, observer 4 confirmed the teacher's role in monitoring and illustrating most of the class time. Observer 4 added that the teacher did not offer choices for the students to select and take charge of their own learning. Moreover, both observer 3 and 4 mentioned that the act of keeping opportunities to use CALL materials all the time was missing.

➤ *How would you describe my learners' roles in the class?*

The changing requirements of modern education have redefined teachers and learners roles. Learners are no more deliberated as passive receivers of knowledge conveyed by teachers. Instead, learners need to be given responsibilities to take charge of their own learning. After describing the teacher's role in CALL laboratory, the observers have given their viewpoints concerning the learners' roles. They were all agree on the point that learners did not hold any responsibility to make decisions and control their own learning.

Observer 1 defined learners as passive and reliant who cannot learn without assistance. In the second observation, observer 1 stated clearly that learners were dependent. They did not seek for alternatives and continuously asked for help. Similarly, observer 2 perceived learners as passive and unable to direct their own learning. Observer 3, in turn, marked inactive learners who did not act independently at all. Additionally, both observers 3 and 4 noted that learners used only the required CALL resources though insufficient and not all the available ones, as they were not encouraged to.

In the last part of the observation form, the observers were given the opportunity to have a final say about the key areas of strengths and weaknesses in the teacher's performance. For the areas of strengths, the observers documented different notes. Observer 1, for instance, noted that the strengths in the teacher's performance are providing feedback and encouraging learning in general. Observer 2 noted that the teacher managed the use of CALL materials. Similarly, observer 3 remarked in the two observation forms the teacher's well management of CALL laboratory. Observer 4, however, tackled a different area that is cooperation with other teachers through peer-observation.

The weaknesses in the teacher's performance, on the other hand, were analogous. The observers viewed that the observed teacher did not benefit from CALL qualities for increased autonomy due to different reasons. Observers 1 and 3 mentioned that the teacher's selected experiences that did

not provide learners with opportunities to practice independently or make choices. In the same area, observer 2 noted that the teacher did not set expectation for achievement in accordance with abilities, whereas observer 4 renowned that the problem in the teacher's performance is the inappropriate selection of the assigned activities.

According to the literature, promoting autonomous learning is done by supplying learners with opportunities to make decisions and choices. Using CALL materials, teachers can effectively lead students to realize the trail to learning on their own. However, the data obtained from peer-observation have further validated the observational checklist results. The observers' evaluation of the teacher's practices in CALL laboratory confirmed that the teacher's methodology in selecting assignments, distributing roles, and providing opportunities is the reason that underlined the learners' low autonomy level.

The observers have noted many areas of weaknesses in which the teacher did not select the right assignments that help students to use CALL materials for making choices or decisions, setting goals, reflecting critically and thus being responsible for their own learning. The positive point documented in the teachers' observations was the teacher's management of CALL materials. In this sense, peer-observation is a useful reflective practice for recognizing strengths and dealing with weaknesses and thus the second hypothesis is confirmed.

Moreover, peer-observation results indicated that the teacher's methodology was not accurate to benefit from the autonomy supportive feature of CALL. Henceforth, a reflection for action is required for the development of the teacher's performance. Accordingly, peer-observation is a supportive practice to create an action plan that develops learners' autonomy in CALL laboratory, which proves once again the third proposed hypothesis.

4.4.3. Analysis of the Reflective Journal

As part of the teacher-researcher's reflective practice to promote EFL learners' autonomy in CALL laboratory, journal entry was used to collect various understandings of the teaching situation before the adopted action plan.

The journal entries were classified according to weeks, and then read several times for critical reflection. At this level, the researcher is going to analyze the journals chronologically according to the time of their entry. This is to check the accounted problems, the teacher's reactions and interpretations of these problems in order to evaluate learners' autonomy before the teacher's intervention.

After collecting observational data, the researcher started keeping journals as another reflective practice. Fifteen (15) entries were kept in the first semester to seek for an explanation to the students' low autonomy level. Qualitatively analyzed, some entries were grouped together when repeated ideas and patterns were considered to avoid repetition and facilitate data introduction.

In the first two entries, the teacher researcher noticed the problem of boredom and lack of attention in the laboratory, she documented in an entry

It is the eighth session; the students are familiar with the materials at hand but not motivated to learn. They use the materials for listening then they keep silent and take off the headphones immediately as if unwilling to listen again.

As a reaction to the noticed problem, the teacher wondered: what may be the reason? To interpret the situation, she decided that students are unused to CALL laboratory and need more practice. The developed understanding from the situation revealed that students need more encouragement and assistance to perform successfully in CALL lab.

In the following two entries, the researcher noted another affective problem similar to the students' lack of attention and interest that is willingness to learn, discover and create in a claimed to be the suitable environment. As a reaction to this problem, the teacher noted

A teacher's job is more than presenting an organized course. I feel that I am supposed to provide more assistance, invite my students to seek for help whenever they need it and encourage them to practice more in the laboratory.

The researcher's interpretations to documented events revealed that assistance might be helpful in acquainting the students more with assigned experiences. Thus, encouraging students to ask for assistance may be a solution to the problem of students' lack of motivation and willingness. In this sense, the nonexistence of the affective factors such as willingness is answerable to the students' lack of autonomy in CALL laboratory.

After engaging in the strategy of assistance giving, the teacher-researcher reported the same problems in the following four entries, but with a reduced amount. She reported that the students started to ask and show a level of interest. This interest soon became problem as the researcher realized that they seek but for help. Afterwards, the researcher reported as a problem in one of the entries

I tend to be over assistant to students, which is not always good. After listening to the recording or while presenting through CALL facilities, my students ask too many questions and sometimes the same questions are repeated several times.

The teacher-researcher reacted that the over assistance has made the situation worse. The students became dependent and reliant to the point they enquire before any action. This fact put the teacher in a perplexing situation. As an understanding, the researcher pointed out that the strategy she used did not work because it did not consider other autonomy related factors.

Engagement is another problem that was reported in three entries. The researcher noted in one entry,

I feel that my class was not really involved. The problem of engagement was apparent especially in oral expression courses where only one or two students present and the others listen for later discussion. Moreover, my students show low levels of engagement whenever I do not provide assistance.

The teacher's reaction to this problem indicated that she was not always responsive to all the inquirers due to time constraints, as she has to move from a step to another. As an interpretation, she documented that students were not comprehensive that the lesson has to be completed for a better understanding. They complained, thus they lost their engagement. The teacher's understanding of the situation revealed that engagement is an important cognitive factor to autonomous learning when lost students would not be able to participate actively and creatively in the process of learning.

As the teacher started to engage regularly in writing journals, she started to realize a profound understanding of the teaching situation from learners' performance. The teacher's practices in CALL laboratory were responsible for many of the identified problems in the journal entries. Self-regulation, or the capacity to develop strategies for learning and problem solving, is a metacognitive process that was highly acknowledged for autonomous learning was documented as a problem in two entries. The teacher reacted that learners were not given any responsibility to make choices relevant to their learning styles, preferences and needs. In these entries, the teacher's interpretation of the situation exposed that she has to seek for rather different learning experiences consistent with the environment of CALL in order to benefit from its premises. The understanding she gained from the situation revealed that alternative experiences that give more roles to learners have to be introduced.

In the rest entries, the teacher-researcher reported only one problem that is the students' dependence on their teacher. Seeking constantly for help and showing low levels of interests and engagement have long perturbed the teacher who was always trying to move the laboratory out of passive learning modes to highly engaged learning. She noted as a reaction in one of the entries

I think my biggest area that needs improvement is fostering autonomous learning. Something has to be transformed in the laboratory for better learning. Because, during my practicum I have realized that solving a problem requires more than a reflection in or on action.

The reported interpretations in these entries displayed the teacher's ineffective methodology in CALL laboratory due to the number of the encountered problems. As understandings, the teacher-researcher stressed the significance of reflecting for action in order to develop a strategy for change.

The following table summarizes all the defined problems in the 15 entries, the teacher's reactions to these problems, her interpretation and the gained understanding from each situation.

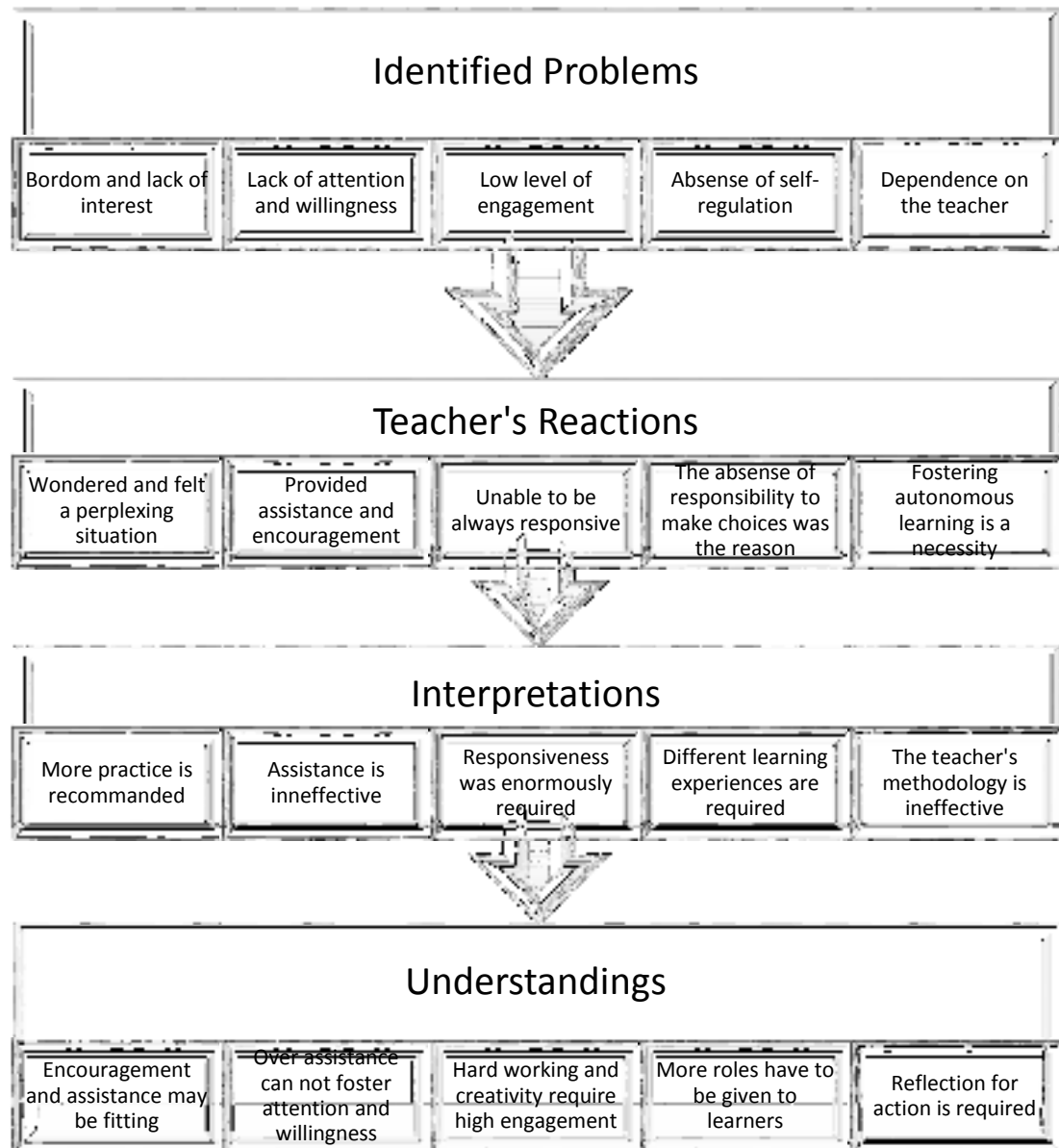


Table 4.10 Summary of the Reflective Journal Entries

While reflecting on these entries, the teacher-researcher recognized the importance of reflective writing in developing a better understanding of her own teaching practices, which in turn helped her in the conceptualization of herself as a teacher. The assembled data displayed the teacher's attempts to cope continually with the encountered problems. However, dealing with one problem at a time as a result of a reflection on action was unused to develop autonomous learning. Each time other problems appear in the following entries.

Moreover, the entries analysis demonstrated the ineffectiveness of the teaching method in CALL laboratory as it did not give learners more roles to take responsibility, make choices and develop strategies. Henceforth, the teacher's reflection for action is recommended to convert the shape of learning in CALL environment. As a result, keeping journals as a reflective practice is said to be useful in ascertaining both strengths and weaknesses. Hence, this result proves the second proposed hypothesis for another time.

At the end of the first semester, the teacher thought of a possible method that may aid both the teacher and the students to profit more from the technology at hand. As an outcome of the teacher's reflection for action, OPG Software was adopted as an action plan to deal with the problem of learners' autonomy in CALL laboratory. In the second semester, OPG was used in the listening/speaking modular courses as a strategy for change aiming at developing learners' autonomy.

In order to manage and control the effects of OPG as an action plan, learners' autonomy was assessed by using an observational checklist conducted during the second semester and learner autonomy scale as a post-test at the end of the investigation.

4.5. ANALYSIS OF THE POST-REFLECTION PHASE RESULTS

The present stage aims at assessing learners' progress after the reflective practices that were hopefully opted for a course of action to enhance learners' autonomy in CALL laboratory.

Throughout the post reflection phase, it was thought to carry out an observational checklist to examine the efficiency of OPG for increased autonomy. Then, learner autonomy questionnaire was administered as a post-test to cross check the observation results. Finally, the teacher-researcher end up her inquiry by making the achieved results accessible to others for critical reflection through interviewing.

4.5.1. Post-Action Plan Observation Checklist

After using a number of reflective practices and taking on OPG Software as a result of reflection for action, an observational checklist was conducted to observe its effects on learners' self-direction, self-access, self-assessment, critical reflection and independent action.

The teacher started the observation conduction two weeks after OPG implementation. The teacher intended to give learners the opportunity to experience and explore the new material at hand.

The checklist contains twelve statements with four alternative responses. In this sense, the coding frame that identifies the statements alternative responses is

'Very seldom' = 1, 'Occasionally' = 2, 'Quite often' = 3, 'Very often' = 4.

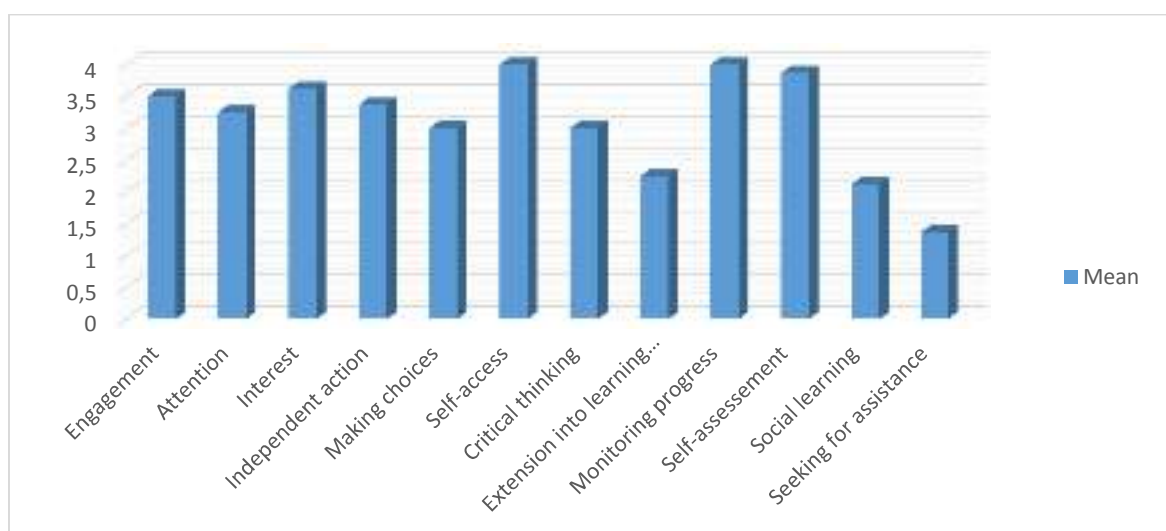
N is the number of the scores in a set. In this case, **N** is 8. In addition, each statement is assigned a number as identification.

Aiming at summarizing the relative occurrences of learners' behaviours and actions in the classroom, the designed checklist sought to address a number of autonomy related constructs. Thus, the frequency of the observed autonomy related factors and opportunities while learning through OPG is displayed in table 4.11 in terms of the measures of central tendency.

	Mean	Mode	Median
1. Learners' are actively engaged.	3,5	4	3,5
2. OPG attracts learners' attention.	3,25	3	3
3. Learners' are interested.	3,62	4	4
4. Learners act independently.	3,37	3	3
5. Learners make choices.	3	3	3
6. OPG engenders self-access facility in the classroom	4	4	4
7. OPG develops learners' critical thinking skills	3	3	3
8. OPG helps learners to create extension into learning experiences.	2,25	2	2
9. OPG helps learners to estimate how well they are progressing.	4	4	4
10. OPG initiates self-assessment	3,87	4	4
11. OPG promotes cooperative work.	2,12	2	2
12. Students seek for help	1,37	1	1

Table 4.11. Autonomy-Related Opportunities while Learning through OPG

Bar graph 4.5 presents the mean of the frequency of OPG offered autonomy related opportunities throughout eight observed sessions.



Bar Graph 4.5. The Mean of OPG Offered Autonomy Supporting Opportunities.

The exposed statistics reveal that the frequencies of the autonomy related factors and opportunities are above the average. Thus, OPG has brought significant changes in learners' performance.

As the first component in the checklist, engagement is above the average with a mean of 3,5. According to Mann (2001), perceiving learning experiences as relevant and significant will profoundly rise engagement with the learning, and subsequently act as a powerful motivator. Engagement with learning is crucial in developing learner autonomy. Henceforth, when properly used, CALL facilities are supposed to promote autonomous learning.

Autonomous learning, in turn, requires metacognitive awareness as a necessary factor. According to Schmidt (1995), awareness is a form of consciousness and there are four types of consciousness, among which is consciousness as attention. He claimed that paying attention is characteristic of autonomous language learning. Throughout the observed sessions, it has been noticed that OPG has attracted learners' attention with a mean of 3,25. Besides attention, assessing what has been learnt and monitoring learning progress are other metacognitive factors that were scored above the average. Thus, the implemented action plan has offered learners with opportunities to estimate the progress of their performance and develop their self-assessment skill.

As an affective factor, learners' interest was given considerable importance in the observation checklist due to its importance for autonomous learning. According to the reviewed literature, Deci recognizes autonomy as a basic need that must be satisfied to achieve a sense of self-determination. Considerably, autonomous learning occurs when individuals embrace the activity with a sense of interest. Little (1991) postulated that independent action focuses on individuals' interests and needs. In the studied setting, OPG has been found effective in supporting affective autonomy in terms of creating interesting experiences with a mean of 3,62 which met almost all students needs and promoted independent action as statistically presented above the average 3,37.

According to the cognitive based definitions, autonomy is about making choices and thinking critically; thus, for autonomy to be developed, students need to make informed decisions and develop critical qualities about their own learning. Throughout the eight observed sessions, the means of both students' informed choices and development of critical thinking skills were above the average.

As for self-access, the score 4 as the mean was very high. CALL laboratory is supposed to be the environment in which learners learn independently without the support of a teacher. The limited activities presented throughout the first semester prevented the students from this advantage of self-access. The implementation of OPG in the second semester has given learners more possibilities to experience a self-access facility in the classroom.

The presented statistics demonstrated that OPG offered opportunities for creating extension into learning experiences and promoting cooperative work were average. The observed cooperation between students was for solving technical problems only. A possible justification may be the nature of OPG activities that support individualized learning through interaction with the computer itself.

Seeking for help or the problem that irritated the teacher all through the first semester was scored below the average 1,37 as students were given the chance to take charge of their own learning through planning, selecting, monitoring and assessing.

After analyzing the results, the researcher noticed that OPG has had a strong influence on the class atmosphere as a whole and autonomy related factors as well. The students have shown high levels of interest, attention, engagement, awareness and self-regulation in almost all the observed sessions.

Accordingly, the teacher's action plan has made learners more involved in the learning process; they were actively engaged, they were motivated, they were self-assessors, they were monitors, and they were generally more

autonomous learners. Thus, it offered cognitive, metacognitive, affective and social autonomy support in CALL laboratory. This result, firmly confirms the last proposed hypothesis.

4.5.2. Learner Autonomy Questionnaire (Post-Test)

At the end of the second semester, and in order to establish a fine comparison between learners' autonomy before the teacher's reflective practices and after, learners' autonomy scale was carried out as a post-test. Thus, the researcher's aim was to crosscheck the potential advantages of reflective teaching practices on developing learners' autonomy in CALL laboratory.

It is worth reminding that the questionnaire is composed of three parts and each part contains a number of statements addressing the four factors to autonomous learning.

✓ *Learners' Performance*

The following table displays the main results achieved after the teacher's adopted action plan.

Item	Statement	Mean
1	I can use the computer on my own.	4,56
2	I learn English better in CALL laboratory.	4,5
3	I enjoy learning English in CALL laboratory.	4,85
4	Learning in the laboratory sustain my interests.	4,66
5	I am often engaged in CALL activities.	4,85
6	I feel that I am effective in CALL laboratory.	3,85
7	I like trying new things in CALL laboratory.	3,95
8	CALL assignments increases my willingness to continue learning.	4,5
9	I learn better when working with colleagues	3,11
10	I often help my colleagues to overcome obstacles	3,5
11	CALL atmosphere is energizing.	4,5

12	CALL assignments develop my reflective thinking.	4,56
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Table 4.12. The Mean of Learners’ Performance Scores at the End of the Study

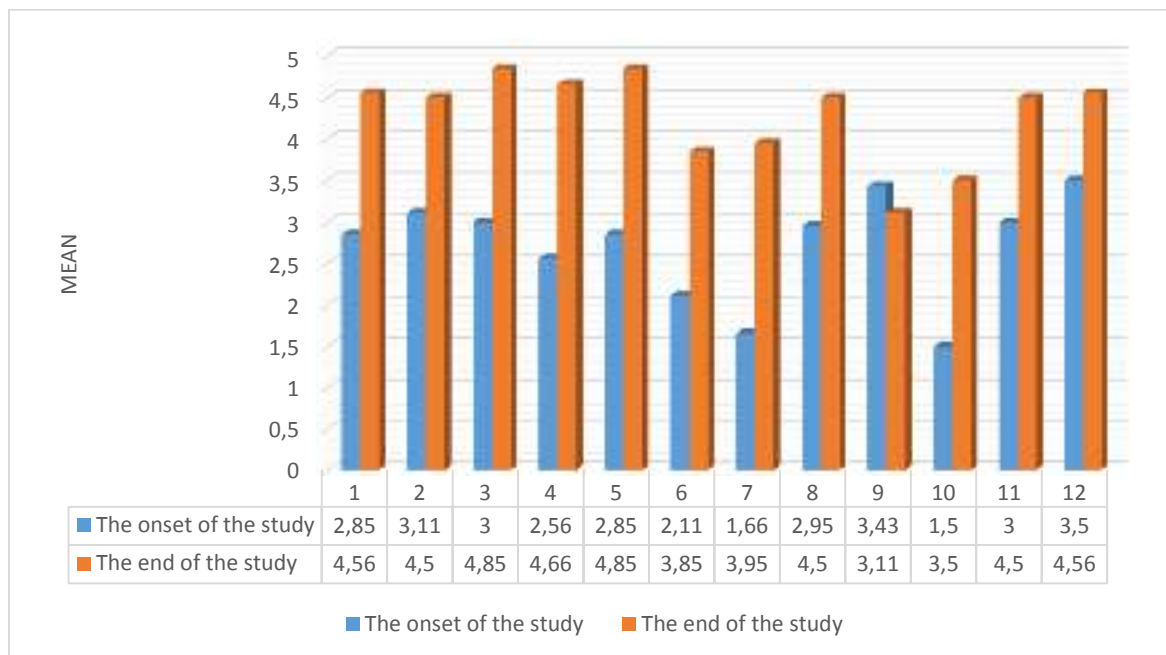
The mean of the total learners’ scores is 4,28, the standard deviation is 0,54 and the variance is 0,30 as it is presented in the following table.

	Mean	Standard Deviation	Variance
<i>Learners Performance</i>	4,28	0,54	0,30

Table 4.13. Central Tendency and Variability Statistics for Learners’ Performance Post-Test Scores.

The statistics in the table reveal that the scores of learners’ performance in CALL laboratory at the end of the study are above the average and the group is homogeneous.

The following bar graph displays a clear comparison between the mean of learners’ performance scores at the onset and the end of the academic year.



Bar Graph 4.6. Learners’ Performance Scores at the Onset and the End of the Study

In a visual picture, the bar graph shows that the mean of learners' performance scores at the end of the study is higher than the mean of their performance scores at the onset of the study. At this level, one may consider that the adopted action plan was successful in enhancing learners' performance to act autonomously. In addition, comparing the standard deviation and the variance achieved from learners' performance scores of the pre-test to those achieved from the post-test shows that the second values of the standard deviation and the variance are lower which indicates a better achievement after the teacher's adopted action plan. In addition, learners' scores are not far from the mean and thus the group is homogeneous.

Rather than observing two sets of scores, T-test formula is another method that can be used to analyze learners' scores. Indeed, there are two types of t-tests:

1. Independent-samples t-tests: is a type used to compare the scores of two different groups.
2. Paired-samples t-tests: is a type used to compare two sets of scores obtained from one group (Dörnyei, 2007).

For the present investigation, the researcher has opted for paired-samples t-test formula to compare the pre-test and post test scores.

$$t = \frac{x_1 - x_2}{\sqrt{\frac{Var1}{N1} + \frac{Var2}{N2}}}$$

X₁ stands for the mean of the pre-test scores

X₂ stands for the mean of the post-test scores

Var₁ stands for the variance of the pre-test scores

Var₂ stands for the variance of the post-test scores

N stands for the number of the students

$$t = \frac{2,72 - 4,28}{\sqrt{\frac{0,50}{60} + \frac{0,30}{60}}} = -12,07$$

Obviously, the t-test outcome reflects a negative value. This fact indicates that learners' performance scores of the pre-test are lower than their scores of the post-test. The t-test result clearly shows the development of learners' performance after the teacher's reflective practices.

Eta squared is probably the simplest formula that can be used to measure the strength of an investigational effect.

$$\text{Eta squared} = \frac{t^2}{t^2 + (N-1)} = \frac{(-12,07)^2}{(-12,07)^2 + (60-1)} = 0,71$$

According to Dörnyei (2007), eta squared is the most common effect size indicator. He states, "the usual interpretation of eta squared is that .01 = small effect, .06 = moderate effect, and .14 = large effect" (217: 2007). In the current context eta squared is 0,71 which means that the effect size is large.

✓ *Self-Direction Test*

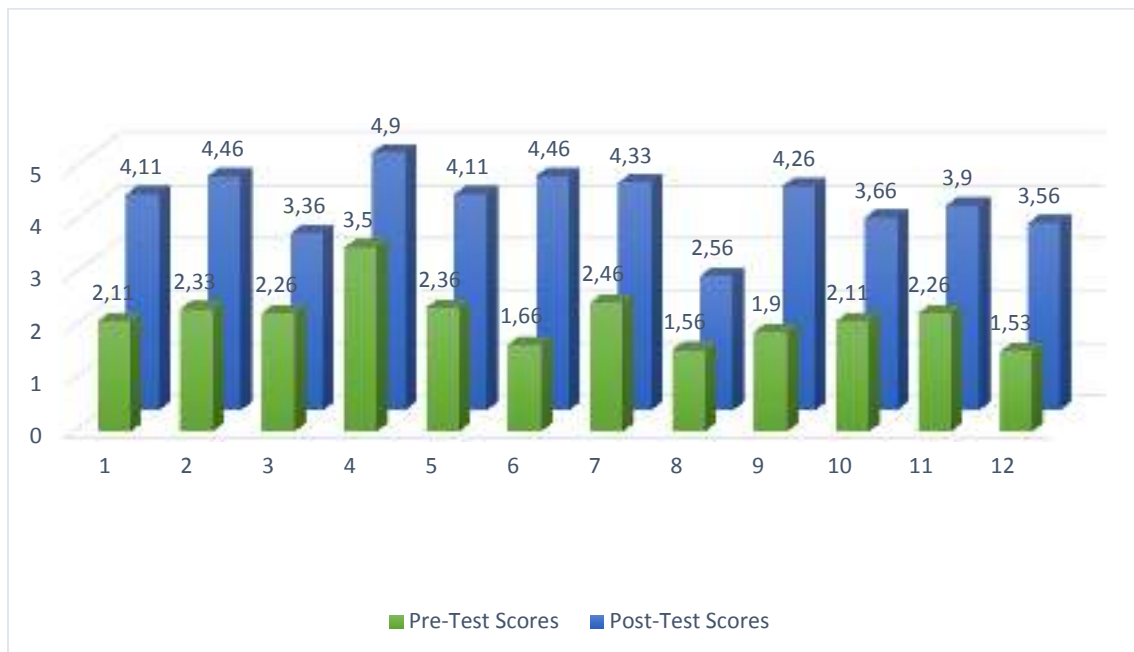
The second part of the scale intends to test learners' self-direction in CALL laboratory. The following table summarizes the main results achieved after the teacher's adopted action plan.

Item	Statement	Mean
1	I usually set my own goals for each session.	4,11
2	I like activities in which I can learn on my own.	4,46
3	I use other CALL resources rather than the ones available in the laboratory on my own.	3,36
4	I check new words by looking them up in e-dictionaries.	4,9
5	I would like to select the materials for my CALL lessons.	4,11
6	I use my own way to do CALL assignments.	4,46
7	I would like to participate in the decisions of what to do in the lesson.	4,33

8	The teacher should give me regular tests.	2,56
9	I know my weakness and go for it.	4,26
10	If I cannot understand during the session, I can learn working myself.	3,66
11	If I have missed a session, I am responsible for it.	3,9
12	I have my own way of assessing my performance.	3,56

Table 4.14. The Mean of Learners' Self-Direction Post-Test Scores

These results are visually presented in comparison with the pre-test results.



Bar Graph 4.7. The Mean of Learners' Self-Direction in the Pre and Post-Test Scores

Bar graph 4.7 displays large differences between learners' self-direction scores in the post-test and their scores of the pre-test.

Table 4.15 presents the mean of the total learners' scores, the variance and the standard deviation of the self-direction post-test, in addition to t-test and eta-squared outcomes to compare the pre-test and post-test results.

	Mean	Standard Deviation	Variance	T-test	Eta- squared
<i>Self-direction test</i>	3,97	0,60	0,37	-18	0,84

Table 4.15. Central Tendency, Variability and Comparison Statistics for Learners' Self-direction Test Scores.

The outcomes in table 4.15 reveal that learners' capacity to direct their own learning is above the average. The low SD signifies that learners' scores are close to the mean, and thus the group is homogeneous. In addition, the t-test negative value and the eta squared high outcome confirm the development in learners' self-direction capacities after the teacher's reflective practices.

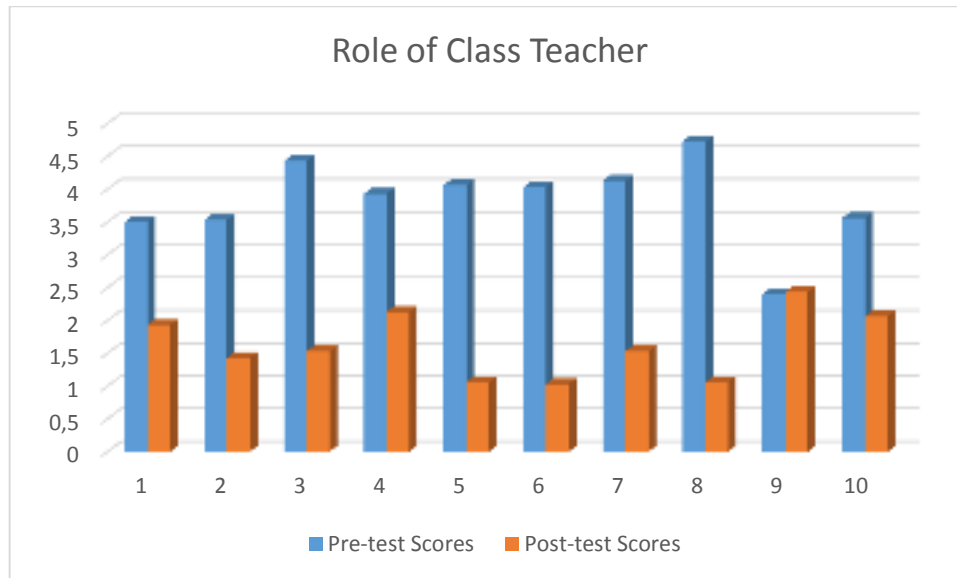
✓ *Role of Class Teacher*

The pre-test scores revealed the supremacy of teacher centeredness over learner centeredness. The post-test results are presented as follows.

Item	Statement	Mean
1	I feel embarrassed when I experience a new activity.	1,93
2	I cannot do an activity if the teacher does not explain it several times.	1,43
3	I learn better, when the teacher explains several times.	1,53
4	I feel confident when the teacher is beside me while doing assignments.	2,13
5	I can learn only with the help of my teacher.	1,06
6	My teacher has always to guide me.	1,03
7	I learn better only when the teacher gives me feedback	1,53
8	I seek for my teacher's help only in private and not in front of my classmates.	1,06
9	I like the assignments where I can work with others.	2,43
10	I hesitate to take decisions alone.	2,06

Table 4.16. The Mean of Learners’ Ratings of the Role of Class Teacher in the Post-Test

Bar graph 4.8 presents a comparison of the distribution of ratings over learners’ views of the role of class teacher in the pre and post-test.



Bar Graph 4.8. Distributing Learners’ Ratings of the Importance of Class Teacher in the Pre and Post-Test

The displayed results reveal that learners’ rankings of the role of class teacher in the post-test are lower than the pre-test. These rankings demonstrate learners’ readiness for self-direction and independent action.

Table 4.17 introduces central tendency and variability measures for the role of class teacher in the post-test. Furthermore, the table presents both t-test and eta-squared outcomes to compare the two sets of scores in the pre and post-test.

	Mean	Standard Deviation	Variance	T-test	Eta- squared
<i>Role of class teacher</i>	1,61	0,48	0,24	22,2	0,89

Table 4.17. Central Tendency, Variability and Comparison Statistics for the Role of Class Teacher Scores.

The results presented in table 4.17 demonstrate that the mean of the total learners' scores in the role of class teacher is under the average, which reveals a reduction in the teacher's role and an expansion in the learners' taken responsibilities. The t-test positive value designates that the role of class teacher scores of the pre-test are higher than the post test scores. This value expresses the diminution of the teacher's roles in CALL laboratory after the adopted action plan. Eta-squared, in addition, confirms the strength of the action plan effect.

To sum up, the presented statistics reveal that learners' autonomy is largely rated as high in CALL laboratory after the teacher's reflective practices. The obtained data indicate that learners' beliefs about themselves are above the average. The majority of learners show increased cognitive and metacognitive abilities to direct their own learning without relying on their teacher. They also expressed high interests and willingness to accomplish CALL assignments.

Accordingly, the exposed scores approve the usefulness of the adopted action plan in developing EFL learners' autonomy in CALL laboratory and thus, the last proposed hypothesis is confirmed.

4.5.3. Teachers' Interview

The results of the interview; which intended to collect in-depth information about the utility of reflective teaching practices to develop teachers' performance for increased learners' autonomy in CALL laboratory and expose the achieved results for critical evaluation; have been also subject to discussion. As it has been mentioned in the previous chapter, the interview that the teacher-researcher had with teachers was structured in its format, i.e., the researcher has relied on a pre-prepared plan (see Appendix6).

The interview was conducted with 5 teachers who were previously invited for peer observation except one respondent who did not conduct any observation but asked to be interviewed. Considerably, the interview questions have resulted in a considerable amount of information that are

presented as follows. Indeed, each respondent is assigned a number as a coding frame for identification (R1, R2, R3, R4, and R5)

The first two questions were factual aiming at gaining information about the teachers' experience in teaching English in general and in CALL laboratories in particular. The following table sums up the findings.

	R1	R2	R3	R4	R5
<i>English teaching experience</i>	4 years	5 years	5 years	11 years	20 years
<i>English teaching experience in CALL laboratories</i>	4 years	4 years	5 years	6 years	8 years

Table 4. 18. Respondents' English Teaching Experience

This shows that the majority of the respondents are novice teachers. However, one teacher has a long teaching experience of 20 years and 8 years of utilizing CALL laboratories.

The third question that aimed at inquiring the encountered issues in CALL laboratories revealed a variety of problems including

- Technical problems in the students' personal computers.
- The drop out of the ICT module that previously helped a lot in developing the students' technical skills.
- The lack of internet access that was rarely available in CALL laboratories.

These problems, according to teachers, are said to have a tough negative effect on learners' interests, willingness and attention to complete learning tasks.

The fourth question tackles directly the problem of learners' autonomy that irritated the teacher researcher in order to cross check if it is a common issue in CALL laboratories. The results revealed that almost all teachers consider learners' autonomy as an inexplicable problem in CALL environments that are supposed to support learners' abilities to take responsibilities and direct their own learning. In the same line of thought, R4

and R5 assumed that learner autonomy is not a problem that is encountered at the university level only, but a big issue that is common from the middle and secondary schools. R5 added that learners became familiar with act of being spoon-fed, thus CALL laboratories as settings of innovation and change cannot bring immediate changes in learners' autonomy.

In an attempt to find out solutions to learners' low autonomy level, the following question revealed that some teachers, mainly R4 and R5, rely on collaborative group work to address the social factors to autonomous learning. Whereas, R1, R2 and R3 prefer to select learning experiences that reflect learners' interests and attract their attention to engage in research using the materials at hand.

About the practice of reflection to find out a solution to the problem of autonomy, the teachers replied that they usually reflect on their practices to promote autonomous learning. Their responses to the seventh question revealed that they acknowledge critical reflection on teaching practices for increased autonomous learning.

Concerning the eighth question that asked about the way teachers practice reflection, the answers demonstrated that R2 and R3 reflect in action as they think during action to cope with the encountered problem. They postulated that they do not make use of any data-gathering tool. In contrast, R1 and R4 replied that they use journaling as a tool to record their reflections. They stated that after each action they rest for a moment to evaluate how it worked. This way is known as reflection on action. Lastly, R5 preferred to reflect for future action to deal with problems and considered peer observation as the most objective data-gathering tool for reflection as it does not reveal the practitioners own impressions about actions.

About the role of critical discussion to improve their teaching performance, teachers responded that they do not meet their colleagues frequently except before exams, and during this period they do not discuss their teaching practices. In this sense, they did not provide clear view about

the role of critical discussion for developing their performance. Nonetheless, R5 expressed that collaboration between teachers is of vital significance and she always invite colleagues to visit her classes. This respondent added that she used to be observed then interviewed by inspectors in middle and secondary schools.

After enquiring the use of reflective practice to develop teachers' performance for increased learner autonomy, the researcher exhibited the results of her reflective practice for sharing and discussion. As a response to the first sub-question, the respondents revealed positive attitudes towards reflective practices. They considered reflection with the use of data gathering tools as useful in defining reasons standing behind any perplexing situation. Therefore, almost all the respondents appreciated reflective practices in CALL laboratories to develop plans of action applicable to the encountered problems.

Noticeably, there was a general agreement in the respondents' answers of the second sub-question. They all deliberated the usefulness of reflective teaching practices in supporting autonomous CALL on account of the exposed results. The respondents, moreover, treasured the researcher's planning of action research supported by critical reflection and data-gathering tools in developing an action plan that brought significant changes in learners' autonomy.

Regarding their readiness to engage in the same reflective practices to support their learners' autonomy, the respondents did not show great willingness. R2 and R3 postulated that it is a time consuming process and if they have to reflect for an action plan, one tool would be enough. R1 and R4 stated that they can apply the same action plan to support their learners' autonomy, but to engage in such a long journey is in some way a demanding task. R5, in contrast, considered the teachers' reflective thinking as an important practice in all educational settings and demonstrated her readiness

to inquire her teaching practices using a variety of tools but insisted on the efficiency of collaborative inquiry.

The closing question of the interview aimed at allowing the respondents to review their expectations from reflective teaching practices to promote autonomous CALL, especially after consulting the researcher's achieved results. The answers revealed that the autonomy-supporting premise of CALL environment is not always achieved, thus EFL instructors have to reflect on their practices to identify the standing problems and subsequently deal with them. R2 and R3 stated that they reflect on their practices either intentionally or unintentionally to deal with the problem of learners' autonomy in CALL laboratory. They added that these reflections sometimes resulted in unexperienced solutions as they were not carefully planned. Therefore, they both recommended peer observation as a reflective practice to diagnose their weaknesses.

In the same line of thought, R1, R4 and R5 contended that reflective thinking is a dynamic practice that can result in supportive solutions to deal with the problem of autonomy in CALL laboratory. They agreed on the design of careful reflective process supported by reflective journaling to develop consistent plans of action.

To sum up, the interview results indicated that the respondents, who are university English teachers, have a relatively short experience of teaching English using CALL laboratories. They consider journaling and peer observation as supportive tools to reflect on their practices. Accordingly, the data they provided fit well with the third proposed hypothesis, which acknowledged the use of observation and journaling as reflective teaching practices to support autonomous CALL.

4.6. DATA ELUCIDATION AND SUMMARY OF THE MAIN FINDINGS

According to the achieved results, the present section aims at summarizing and drawing conclusions to this investigation. Thus, an

interpretation of the main results obtained from the research instruments is supposed to provide answers to the research questions and conforms or informs the suggestions expressed in the hypotheses. Indeed, the researcher has used descriptive statistics along with deduction that is an inference mode to test the hypotheses and generalize the results.

The first research question intended to explore the generalizability of the autonomy-supporting feature of CALL laboratories; learner autonomy scale was used to investigate such a benefit before the teacher's intervention. The scale contains three main parts addressing the four factors emphasized in the major definitions and theoretical perspectives to autonomous learning. The aim was to explore learners' autonomy and assess the degree to which CALL supports them to act independently.

The first part, learners' performance, planned to investigate learners' capacities and competences in CALL laboratory. The results indicated that the mean of the total learners' scores was 2,71, thus, learners' performance in CALL laboratory at the onset of the study was under the average. Self-direction test in the second part of the scale anticipated to test learners' ability to control their own learning and take responsibilities. The mean of the total learners' scores in the self-direction test was 2,17. This outcome demonstrated that learners' self-direction capacities were below the average. Eventually, the last part of the scale named as role of class teacher intended to assess qualities of learner centeredness in CALL laboratory. The outcomes revealed high dependence and reliance on class teacher.

The findings denoted that learners' autonomy was generally rated as low in CALL laboratory at the onset of the study. In this sense, placing EFL learners in computer-assisted laboratories may not necessarily develop their autonomy. Consequently, in terms of supporting individualization and self-direction, language laboratories are not fundamentally useful in making language learning autonomous. This firmly confirms what was supposed in the first hypothesis.

The second research question was examined through pre-action plan checklist conducted by the researcher, reflective journal and peer observation. The results revealed that the teaching methodology was not fitting to benefit from the autonomy-supporting feature of CALL. The teacher did not provide learners any opportunity to make choices, set goals, reflect critically and assess their progress.

The teacher-researcher's observation of her practices indicated a low autonomy level resulting from the limited learning experiences. The teacher's reflection on the checklist results supposed that the problem of learners' autonomy was triggered by lack of the offered opportunities to hold responsibilities over learning. In this sense, participant observation is convenient in recognizing weaknesses in one's own practices.

Looking from the peer observers' angle, the observed teacher did not provide learners with the suitable assignments to use CALL materials for independent action, self-access, decision-making, and thus be responsible learners. Henceforth, peer observation is a supportive tool to reflect critically and positively deal with weakness in one's own teaching practice.

The teacher's reflective writings revealed many problems that established a handicap to the development of learner autonomy. The accumulated data demonstrated the teacher's attempts to deal frequently with the faced problems that necessitated a reflection for action. Thus, reflective writings are helpful in developing a better understanding of the teaching situation.

These findings lead the researcher to assume that reflective teaching practices are efficient because of the following benefits. First, teachers can identify areas of weakness in their performance. Autonomous language learning can be promoted methodically in the classroom, thus, teachers' critical reflection is supportive to deal with the identified weaknesses. Second, reflective practice allows teachers to recognize and develop the strengths in their performance. Third, reflective practice can assist teachers' professional development.

As far as the last hypothesis is concerned, it was found that the use of reflective journaling along with peer and participant observation was favorable to reflect for action in order to develop EFL learners' autonomy in CALL laboratory. The results achieved revealed that autonomous CALL requires more than a student in front of a machine, but a student-computer interaction through giving more roles, choices and responsibilities to access, assess and set goals. The teacher's reflection on the attained data resulted in the adoption of OPG as an action plan. It should be noted that these results corroborate the fourth hypothesis.

The main results related to the post reflection phase demonstrated the success of the adopted action plan in promoting EFL learners autonomy in CALL laboratory. The findings of the post-action plan observation checklist revealed valuable changes in learners' autonomy when learning through OPG. CALL environment has been found supportable, flexible, open and positive; in which learners were using computers on their own and the teacher's role was only to offer guidance. OPG activities were more likely to promote interests, attention, willingness and engagement, and thus autonomous learning.

Further, the results of the autonomy scale administered as a post-test revealed considerable differences in learners' scores. In order to examine statistically these differences, the t-test and the eta-squared formulas were employed to measure the strength of the action plan effect. For the scale's first part, the results displayed that the t-test outcome -12,07 reflected a negative value which indicated that learners' performance scores of the pre-test were lower than the post test scores. In addition, the eta-squared outcome 0,71 revealed a large effect. Moreover, comparison statistics for learners' self-direction test scores showed a negative t-test outcome -18 and high eta-squared value 0,81. As far as the last part of the scale is concerned, the role of class teacher statistics pointed out a decrease in the teacher's role and a growth in the learners' occupied responsibilities. The t-test outcome reflected a positive value 22,2 which demonstrated that the role of class teacher pre-

test scores were higher than the post test scores. Additionally, the eta-squared value 0,89 confirmed the strength of the action plan effect.

Finally, the main research findings displayed the importance of reflective teaching practice to deal with perplexing situations in EFL classrooms. These findings disclosed that when the teacher reflects constantly on encountered problems, the quality of teaching is more likely to be developed. Autonomy in CALL laboratory has been found as a problem that can be dealt with through teachers' reflective practice either at a technical or organizational level. Eventually, one may deduce that autonomous CALL can be achieved through teachers' reflective practice.

4.7. CONCLUSION

This chapter attempted to present, analyze and discuss the main results of the diverse data attainment methods. The presented findings highlighted the importance of reflective teaching practice to cope with the problem of autonomy in CALL laboratory. Reflective teachers are more likely to discover the reasons underlying a puzzling situation as learner autonomy. As a result, they tend develop an action plan to support autonomous CALL.

Therefore, EFL teachers are called for incorporating reflective practice to promote their learners' autonomy in CALL laboratory through developing action plans, such as OPG Software, that give learners more roles to practice, allow them to make choices and direct their own learning. EFL teachers should engage in reflective practice through reflective writing, peer observation and interviewing to discover the areas of strength and weakness in their performance. They can reflect at a technical level on the selected techniques, learning resources and ways of assessing learners' performance in CALL environment. They may also collaborate with peers to consider the disputes that may affect autonomous CALL. In CALL laboratory, they should select autonomy supporting learning experiences that are available in many lab-based language software programs.

Finally, autonomy can be affected by cognitive, metacognitive, affective and social factors; hence, EFL teachers have to design interesting activities that offer more opportunities for all learners to engage individually and socially in the learning process. This chapter, indeed, provided a clear idea about the significance of reflective teaching practice in developing teachers' performance for increased learners' autonomy, thus, allowed the researcher to propose some practical ideas and pedagogical implications for teachers to be reflective practitioners in their classrooms.

Chapter five

Supporting Autonomous CALL through Reflective Teaching Practice

CHAPTER FIVE

Supporting Autonomous CALL through Reflective Teaching Practice

- 5.1. INTRODUCTION
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5.1 INTRODUCTION

In the light of the realized findings presented in the preceding chapter, a sum of implications arise to mind. Therefore, this chapter is planned for EFL teachers who wish to be reflective practitioners and classroom inquirers with the aim of building an autonomy supporting classroom environment. Accordingly, it introduces some preparatory recommendations needed to develop learners' autonomy in CALL laboratory. Additionally, this chapter attempts to set the stage to construct a lab-based course supporting self-direction and decision-making in terms of a number of stages.

Primarily, the requirement of teachers as researchers with an overall opinion about learners' needs and roles will be discussed. In fact, a teacher as a reflective practitioner should be attentive about his learners' needs in general, and autonomy ones in particular. In this manner, s/he would be able to develop the convenient learning experiences in order to achieve high levels of learners' autonomous performance.

Reflective teaching practice is considered as being crucial due to the realization that teachers' thinking about their own practices aids them to recognize the strengths and weaknesses of their actions in the classroom. In hope to present a number of proposals that recommend the practice of reflective teaching, the present chapter attempts to introduce a comprehensible outline to reflective practice for developing autonomous CALL.

Secondly, based on the analysis of the attained data, a set of recommendations for the use of CALL to support EFL learners' autonomy, besides, the fitting conditions that are necessary to achieve its intended outcome have been suggested. In this way, teachers have to reflect on plans of action mediating the autonomy supporting factors, including the cognitive, metacognitive, social and affective factors.

Furthermore, the researcher has also proposed some practices to develop research plans. Additionally, strategies for sharing are introduced to make the teachers' professional knowledge accessible to others for critical discussion.

5.2 IMPLICATIONS FOR AUTONOMOUS CALL

As already presented in the third chapter, the English department at Naama University Center is equipped with two language laboratories designed especially to teach oral comprehension and expression. As autonomy-supporting environments, it is presumed that the presented course is outlined to enthruse learners' willingness, interests and needs, and provide them enough space to act independently, make informed decisions and evaluate progress.

By incorporating an action plan to support learners' autonomy in CALL laboratory as a result of reflection for action, the studied sample has been found as dynamic, attention-grasping and offering learners with advanced authentic ways of developing their listening and speaking skills. The results of the present study have proved the significance of reflective teaching practice to promote EFL learners' autonomy in CALL laboratory and therefore validated the value of teacher' reflection on their practices to deal with encountered problems.

Nonetheless, the attained results obtained from the data gathering tools used as part of the teacher's reflective practice have also indicated a number of factors and conditions that have to be taken into consideration in CALL environment to result in autonomous learning. In this sense, teachers need to understand these factors in order to provide learners with the required support to act autonomously.

The researcher has identified three necessary factors for an autonomy-supporting environment including course design, factors mediating autonomous learning and the development of learners' computer literacy.

5.2.1. Course Design

Course design along with the teaching methodology used have to be consistent with technology at hand, in a sense that teachers have to develop courses that allow learners to practice on their own with the available materials. As a matter of fact, Yalden (1987) considered the teaching methodology as an integral part of course design, and both have to be carefully considered. Hutchinson and Waters (1987: 65) have defined the notion of course design as,

“an integrated series of teaching learning experiences whose ultimate aim is to lead learners to a particular state of knowledge” (qtd. in Graves, 1996:3).

Actually, CALL components are extensively recognized as efficient resources in EFL classes. Though Algerian universities are provided with language labs, their use is still limited due to the ordinary traditional course designs allocated in these laboratories. Yet, the application of CALL components are constantly developing; thus, teachers are in need of developing courses dependable on the environment and the ultimate goal of the modular course.

In fact, researchers often assign meaning to course design for increased learner autonomy. For example, Cotterall (1995) claimed that most EFL teachers believe in learner autonomy, but simultaneously exclude learners from decisions about planning, pacing and evaluating classroom tasks. As a result, learners do not perceive any link between classroom tasks and the target skill to be developed. In this vein, Cotterall (1995) proposed five major implications for designing an autonomy supporting language course.

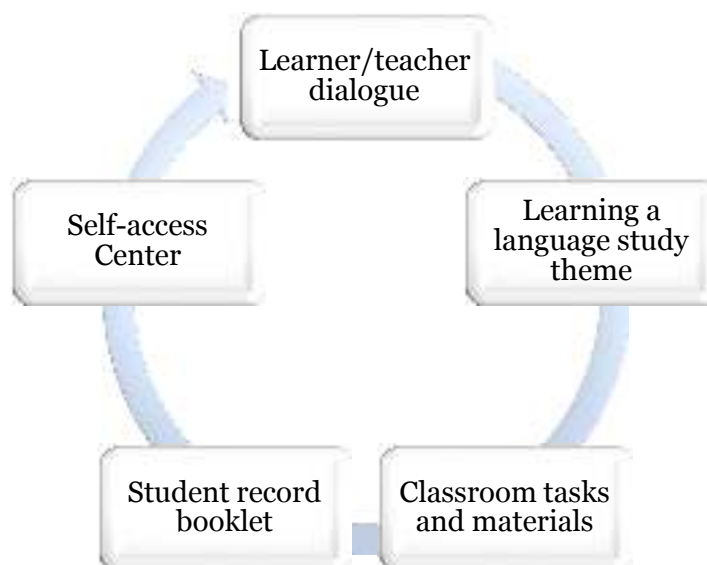


Figure 5.1. Autonomy-Supporting Course Design Principles (Adapted from Cotterall 1995)

The first principle, learner/teacher dialogue, entails continuous communication between the teacher and learners; which allows for setting and clarifying goals, assess and discuss progress and lastly giving advice. The second principle, learning a language study theme, aims at raising learners’ awareness

about how a language is learnt and the significance of autonomy for the success of such a process. Considering the third principle, the design of classroom tasks and materials, an autonomy-based course needs to incorporate experiences that learners can replicate on their own in real world situations and encourage learners to self-regulate their language learning. Student record booklet, the fourth element, encourages learners' critical reflection on their learning experiences and at the same time provides space to record thoughts for discussion in the teacher/ learner dialogue. The last implication, the use of self-access centers (language labs), entails offering opportunities, tasks and materials for learners to have a self-access facility.

Soon after, Cotterall (2000) suggested five other implications that are closely allied to the previous ones to design an autonomy-based course including,

1. Learner goals
2. Language learning process
3. Tasks
4. Learner strategies
5. Reflection on learning.

According to Cotterall (2000), a course that supports autonomous learning has to give learners the opportunity to identify and set learning goals according to their needs. In fact, identifying what to learn and planning how to learn it are said to be characteristics of the autonomous learner. However, the effective planning of the learning process requires the learners' awareness of the language learning process. Additionally, the designed course has to include tasks that reproduce authentic communicative situations. These tasks, essentially, have to encompass a number of learning strategies from which learners can select the ones that suit their styles and preferences. Basically, all these implications entail reflection on learning that has to be regularly endorsed during the course.

Rendering Cotterall's (1995, 2000) implications, autonomy in CALL laboratory should not be attached to old course designs. Therefore, a new pedagogical model has to be approved to support active self-directed learning

and develop critical thinking abilities. CALL materials should be incorporated as integral components to develop the skills required for the learner to be autonomous in the laboratory.

According to Shucart et al., (2008) CALL is deliberated to be a technology-based approach to autonomous learning. Thus, teachers should be enough aware that the designed course has to consider a number of factors and variables. Noticeably, research has offered considerable implications for the design of an autonomy supporting lab course. In this vein, Chan and Kim (2004) stated,

Any foreign language curriculum that aims to promote autonomy must focus on putting learners in control of their linguistic and learning processes. It must therefore be process-oriented and take into account learners' individual needs, preferences, learning processes and proficiency (qtd. in Zhang, 2008:201)

Therefore, in order to appreciate what methodology for autonomy entails, teachers have to consider how CALL applications accommodate learners' needs, competences and preferences. Levy et al. (2011) contended that a high-quality innovative foreign language course requires from teachers to develop new skills in CALL material design so that it facilitates and encourages learners to take up the endeavor of foreign language learning.

An autonomous course design accords with the structure of many of multimedia programs available in the market due to the space it offers for self-access learning. Commercial software industries of publishers are constantly offering interactive CD-ROMs, accompanying websites to textbooks or merely involving CD-ROMs within textbooks. Beatty (2010) considers these offers as more sophisticated than collections of audio-files or listening scripts followed by comprehension questions.

Certain software packages can offer a complete curriculum for language learning. TELL ME MORE, as an example, is a language learning software that can be used by learners individually and language teachers in schools and universities. It is an integrative CALL software that emphasizes reading, writing,

listening and speaking with more than 750 hours of practice. It encompasses multimedia video, digitized sound and speech recognition technology that recognizes what the user says, assesses his/her pronunciation and corrects the encountered mistakes. The educational and computer community has recognized TELL ME MORE as an alternative to traditional language learning modes.

The Internet is among the principal new technologies that can support self-directed learning (Littlemore, 2001; Warschauer, Turbee, & Roberts, 1996). Thus, one of the practical possibilities of designing an autonomy-supporting course may include web based CALL activities such as the use of MP4 podcast files that can be transferred to a personal audio player. In fact, podcasts can cover a wide range of areas in foreign language teaching including listening, speaking and pronunciation in addition to developing learner autonomy. It can be defined as audio file that can be subscribed to or downloaded by listeners through RSS (Really Simple Syndication) feed that is a method of publishing information to the internet, usually audio materials in MP3 or MP4 format that can be listened to on an iPod or a desk computer. Podcasting provides a self-access facility as the learner listens to the audio and simultaneously reads the corresponding text that rolls in sync enabling them to notice and correct their mistakes. Thus, it also provides learners with the opportunity for reflection and self-assessment.

There are many commercial English podcasts available on the net that can offer exposure to the vocabulary and expressions used in real life situations. Examples of web sites include,

- <http://lkey.podomatic.com/>
- <http://www.englishpod.com/>
- <http://businessenglishpod.com/>

Using podcasting, a teacher may ask learners to listen to podcasts and take notes of the new or the desired expressions viewed in the course. Since the teacher has already discussed these expressions in the laboratory, learners will find it easy to relate them to what they listened to. Teachers may also create

podcasts and upload audio files for learners to develop a self-access facility in and out of the laboratory. This strategy of course design would pave the way for incorporating innovative pedagogy in CALL laboratory. Little (2005) noted that podcasts are important for the development of listening comprehension, pronunciation and learner autonomy, and that the opportunity for self-assessment enhances the learner cognitive and metacognitive skills.

5.2.2. Factors Mediating Autonomous Learning

The second factor for developing autonomous CALL is to consider the four factors mediating autonomous learning. EFL learners have a number of needs for an effective autonomous language learning, including linguistic, cognitive, metacognitive, affective and social.

- At the linguistic level, there should be language data and opportunities for learners to practice in order to learn the language. Thus, sequencing instructed materials, offering comprehensible input and encouraging practice will necessary enhance the learning process. CALL offers a great deal on the linguistic side, including multimedia resources as video, audio and graphics, in addition to the software packages that provide structured material designs.
- On the metacognitive level, learners perform better when recognizing their learning styles, being aware of their objectives through the material to be learnt, and defining their way to assess their progress towards their own learning goals. In this sense, autonomy is a capacity that results from the practice of self-directed learning, or the learning in which learners define their own objectives, govern their progress and evaluate learning. Scharle and Szabo (2000) designate three phases for the development of learner autonomy:
 - Raising awareness is the first stage for calling the learners' internal processes to the conscious state of their thinking.
 - Changing attitudes is the second stage that entails the shift from the old patterns of behaviour attained from the practice of skills learned in the previous stage.

- Transferring roles is the final target achieved when the learner can lastly take charge of his/her own learning.
- At the cognitive level, autonomy entails abilities and attitudes that individuals own and develop at different levels. Thus, the teachers support is needed to assist learners' autonomy through the teaching process. Murray (2005) argued that teaching through technology needs to be wisely scaffolded, that is constructing to autonomy. CALL activities may be designed to develop a range of skills and attitudes, including motivation, self-determination and decision-making. Hence, the activities can be designed to address both linguistic purposes and learner development. Arguably, software activities can help learners to link past with present information that supports self-assessment and reflective thinking.
- At the psychological and social levels, it is important to consider that autonomous learning requires a supportive and collaborative environment. CALL provides a wealth of resources that stimulate learners' interests, develop their willingness and offer a space for social learning.

Henceforth, achieving learner autonomy in CALL laboratory is not an easy task. It requires an initial thought and planning, and a continuing commitment to managing the changing EFL learners' needs and goals.

5.2.3. Developing Learners' Computer Literacy

The obtained data presented in the previous chapter indicated that CALL, when carefully planned and considered, is useful in engaging learners in the learning process, motivating them to accomplish tasks and promoting autonomous learning. Nonetheless, the marginalization of ICT modular course from the Licence Caneva has negatively affected learners' performance in CALL laboratory.

Throughout the first semester, learners came across a variety of problems and difficulties caused by their weak computer literacy skills (i.e., the ability to use the computer hardware and software components competently, for example

mastering the use of the key board, replaying audio files or saving and storing documents). Yet, learners' skill to use software and hardware components is said to be a necessary condition for CALL to result in autonomous learning. In this vein, Moreno claims, "Developing computer skills frequently motivates students to want to produce high-quality work" (2010: 373).

Decision makers as one of the most significant actors in educational settings have to confirm that EFL learners have at least the compulsory computer skills that permit them to learn effectively before assigning them to CALL courses. Therefore, it is crucial to teach learners the required technical skills in genuine settings, i.e., settings that comprise the major CALL materials. In this manner, the investigator proposes a variety of skills that need to be developed to learn in CALL laboratory effectively.

- ✓ Monitoring the use of CALL hardware components.
- ✓ Networking effectively through the computer.
- ✓ Gaining control over information Storage and retrieval.
- ✓ Mastering the main software packages, e.g., Microsoft Word and PowerPoint, video/audio players and internet applications.

The aforementioned skills are among the various factors that may constitute a handicap to the autonomy-supporting feature of CALL. Accordingly, when learners are enough trained to learn in language laboratories, the benefit of autonomous CALL can be reached.

Indeed, there are other skills that can be developed by the language teacher during sessions through a number of strategies in order to promote the learning of language items successfully and productively in CALL laboratory. In view of that, the acquaintance that should exist between learners and CALL devices is a basic condition that can be supplied in the laboratory through:

- ❖ Explaining the use of each computer device before employment.
- ❖ Allotting introductory sessions to new designed software packages.
- ❖ Permitting research and exploration throughout sessions.
- ❖ Directing learners' attention to the unfamiliar possibilities and options.

Moreover, critical reflection and decision-making are significant qualities of autonomous learners, and among the skills that can be fostered throughout CALL activities by the teacher as he/she

- ❖ Presents a sequence of problems or questions that provoke reflection.
- ❖ Assigns activities that allow making decisions about the learning of a specific subject matter.
- ❖ Presents multiple data sources that allow learners to make decisions and explore alternative solutions.

To sum it up, developing learners' computer literacy skills is a necessary condition for the success of CALL. Therefore, prior to placing learners in CALL laboratories, training courses should be held to expand their knowledge in using computers.

5.3. BECOMING REFLECTIVE TEACHERS: Phase one

The ways teachers teach are, certainly, influenced by a number of disciplines including, what they teach, which level they teach and where they teach. Teaching in CALL laboratory, as an example, is an innovative and intellectually demanding process that requires teachers' reflection. The attained data proved the usefulness of reflective teaching practice at informing the way of teaching in CALL laboratory.

Therefore, this section is the first step that is designed for those who teach in language labs and are interested in developing their practices to promote autonomous learning. It deliberately brings together a number of principles for effective teaching and autonomous learning in CALL laboratory with the discussion of practical recommendations in the form of reflective activities involving, evaluating the potentials of the methodology used in CALL laboratory, defining roles in the educational setting and analyzing learners' needs. These activities, indeed, underpin the purposes of this section that are to argue for reflective practice to inform the teachers' performance.

5.3.1. Evaluating the teaching methodology used

Recently, foreign language education in the Algerian universities has been supported by language laboratories for the purpose of making language learning

innovative, authentic and effective. Nevertheless, CALL as innovative pedagogy cannot be effective without defining an appropriate teaching methodology that is assistant with its changing resources and a variety of appreciate intents for its application in addition to well- defined plans for evaluating the adopted methodology and its effects on the defined objectives.

Learner autonomy, that is generally given a great worth in the Algerian higher educational system, is considered as significant factor that contributes a lot to the success of foreign language learning. Therefore, any pedagogical tool purposefully planned to result in improved learning can be judged to result in improved learner autonomy. In this sense, autonomy and learning are dependable concepts; thus, similar principles may be used to evaluate the effectiveness of the teaching methodology used in promoting both of them.

For the assessment of the utilized methodology in CALL laboratory, the researcher puts forth a set of criteria for teachers to evaluate whether the designed objectives, the selected materials, the assigned activities and the addressed skills do actually support learners' learning or not. These criteria are suggested in a linear manner to facilitate teachers' reflection on practice.

- An evaluation of the consistency of CALL materials with the designed objectives is the first suggested criterion. Teachers have to continuously evaluate whether the selected resources fit well with the considered course goals. For instance, if a listening comprehension experience is designed to develop learners' listening skill and support autonomous learning, learners' needs to be given opportunities to control their own personal computers which are required to be supported by the internet, e-dictionaries, e-books and audio creators.
- As far as second criterion is concerned, teachers are recommended to assess the efficiency of CALL resources in presenting the selected material. In this manner, an evaluation of the way CALL materials are used in teaching is suggested to decide how its interventions brought about qualitative changes in teaching.

- Thirdly, a careful consideration needs to be put on the assigned activities that are crucial for learners' engagement. Accordingly, Salaberry (2001) argues that the potential of technology resources in learning is strongly allied to the premeditated activities involved (Zhang and Barbar, 2008).
- In the fourth criterion, the investigator suggests that teachers need to critically examine the use of each CALL material in terms of its effectiveness in developing both linguistic and non-linguistic goals. For example, speaking as a linguistic goal can be taught through a variety of software packages and hardware components. The degree to which these materials develop speaking needs to be examined in learners' performance.

To sum up, the aforementioned criteria are clarified in the following graphical presentation that presents them in a cycle.

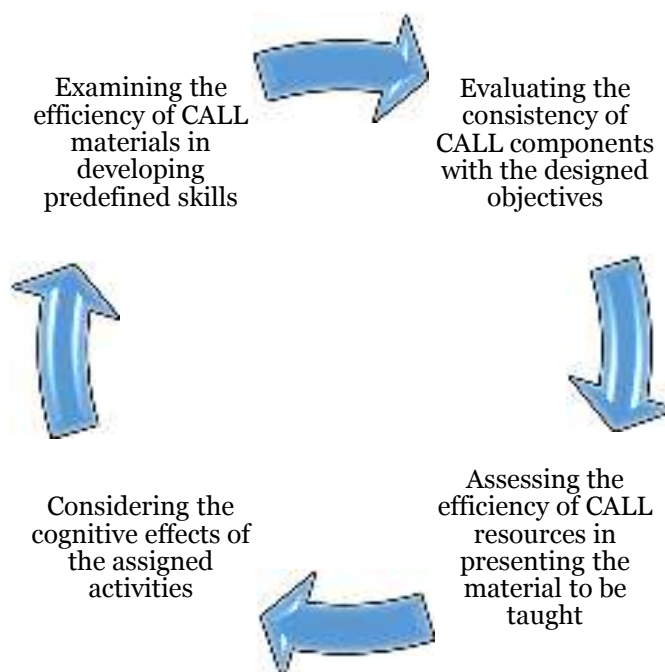


Figure 5.2. The Cycle of Evaluating CALL Teaching Methodology

Teaching through CALL should be carefully planned to best meet up the designed educational goals. Therefore, evaluating the impending potential of the

adopted teaching methodology on the achievement of the academic goals is vital to critically examine its main advantages and drawbacks.

5.3.2. Defining Roles

It is generally assumed that technology supported environments alter the roles played by learners. It is also pointed out that self-directed learning entails a parallel refinement in the teachers' roles. This section suggests the role of the learning counselor that the teacher has to hold in an autonomy-supporting environment, and the responsibilities that this role involves.

Ellis and McClintock (1990) defined the term 'role' as the part occupied by a participant in any act of communication. Wright (1987) stressed that some roles are principally considered by the work individuals undertake, while other roles are primarily reflected by the nature of the interpersonal affiliations they entail. The role of the teacher; for instance, is mainly an occupational role, determined by the nature of educational settings and of teaching itself (Richards and Lockhart, 1996).

The teachers' definition of their own and their learners' roles in the educational setting plays a vital role in the way they teach. Indeed, teachers recognize their roles in diverse ways depending on the kinds of institutions where they teach, the teaching methods they use, their goals in the classroom, and the materials provided for them.

In CALL laboratories, learners are considered as being able to have more active and participatory role than in traditional learning environments. Nonetheless, learners' roles cannot be redefined without an equivalent change in teachers' roles. It is this aspect of defining roles that will be considered in this section, that is, the roles and responsibilities of the teacher within self-directed learning environments. Thus, teachers often need to consider two questions:

- What are our roles as teachers?
- What are our learners' roles?

Actually, defining roles is a vital process in relation to reflective teaching due to the changes affecting learning environments. In this sense, teachers have to plan the roles they execute in their classrooms, the responsibilities these roles

generate for learners, and how they contribute to their teaching styles. Brindley (1984) assumed that teachers who approve autonomous learning have to consider that it is the role of the teacher to support self-directed learning by affording activities that allow for a self-access facility. In this manner, a number of recommendations can be suggested for teachers who wish to develop an autonomy supporting CALL.

- **Course designer:** The teacher has to develop his own course plan that supports self-directed learning.
- **Material developer:** The teacher has to use the technology at hand to develop his own instructed materials that offer learners roles to play and afford them more responsibilities.
- **Tutor:** An autonomy supporting CALL course requires from teachers to offer guidance and give directions to all learners in order to feel supported and helped.
- **Needs analyst:** The teacher has to constantly consider learners' needs in order to develop the suitable courses.
- **Empowerer:** It is recommended in this role that the teacher takes little control over the course giving learners the opportunity to make decisions over the content of leaning (what they learn?) and the context of learning (how they want to learn it).
- **Motivator:** Affective factors are crucial for autonomous learning, thus teachers are recommended to increase learners' self-confidence and interests that would result in a motivating environment.
- **Researcher:** Conducting research related to teaching and learning in CALL laboratory is greatly suggested for teachers to recognize their strengths and weaknesses, and deal with their learners' interests and preferences.

When teachers assume these roles, learners would be given more chances to develop self-regulation skills, take responsibilities and make decisions.

5.3.3. Analyzing Learners' Needs

One of the basic recommendations of developing autonomous CALL is that a sound lesson plan and assignment design should be based on an analysis of learners' needs. The notion of needs analysis refers to the procedures employed to accumulate data about learners' needs. In fact, other terms have been proposed for needs such as necessities, demands wants, lacks, deficiencies, goals and objectives.

Jordan (1997) considered needs analysis as the starting point for developing not only syllabuses, courses and materials but also all kind of teaching and learning that takes place in the classrooms. In this sense, Graves (2000:98) postulated,

Needs assessment is a systematic and ongoing process of gathering information about students' needs and preferences, interpreting the information, and then making course decisions based on the interpretations in order to meet the needs.

As a process, needs analysis may be used for a variety of purposes, thus it is necessary to decide exactly for which purposes it intends. For instance, Richards (2001) advocated needs analysis to

- ✓ Define the language skills learners need to perform a particular role.
- ✓ Assess if an existing course effectively addresses learners needs and potentials.
- ✓ Define which learners from a group require more training in specific language skills.
- ✓ Define learners' problems and deficiencies.

Therefore, defining purposes is the starting point that is recommended by the reflective practitioner for a needs analysis to develop learners' autonomy in CALL laboratory. Accordingly, the purposes might be:

- To collect data about the problems learners are experiencing.
- To identify learners' cognitive and metacognitive abilities.
- To find out what skills a learner needs to perform the defined roles.

- To determine what learners need for cognitive, metacognitive, affective and social autonomy support.

After defining why the analysis is being undertaken, the analyst has to decide up on the approach to needs analysis and the methods of data gathering. Indeed, there is a variety of diverse approaches to needs analysis. Jordan (1997) presented these approaches according to their appearance. Primarily, target-situation analysis is an approach developed by Munby (1978) whose main concern is communicative syllabus design. This model emphasizes the variables that affect communication needs. Present-situation analysis is another approach devised by Richterich and Chancerel (1977/80). This approach determines learners' level of language development at the onset of the language course. Alternatively, learning-centered approach is rather a different model to needs analysis advocated by Hutchinson and Waters (1987). By learning-centered, they infer to learning as being a process of cooperation between individuals and the society that entails teaching, syllabus, methods and materials. Hutchinson and Waters consider a number of questions to analyze leaning needs:

- Why are learners taking the course?
- How do learners learn?
- What resources are available?
- Who are learners?
- Where will the course take place?

Hutchinson and Waters (1987) speculated about needs in terms of 'necessities', 'lacks' and 'wants'. As for necessities, they infer to what learners have to know in order to function successfully in the target situation. Lacks refer to the breach between learners' knowledge and the target proficiency. Lastly, wants refer to students' personal interests and needs to feel safe, confident, and recognized, and are considered as crucial for the success of a foreign language course. Strategy analysis is another model appeared in the 1980s focuses largely on the methodology used to introduce language programs after observing learners' styles and strategies. Finally, means analysis is another established

approach that centers around the study of the local situation (including teachers, teaching methods, students and facilities) to examine the way of carrying out a language course. It uses the available factors as a basis for strategy and course implementation.

Of the five cited approaches, learning-centered and means analysis are the ones that might be recommended for promoting learners autonomy in CALL laboratory. As the researcher emphasizes autonomy, learning centered approach might be adopted for the selection of teaching and learning topics and activities based on learners' needs and interests, in addition, means analysis might be used to study the local situation to adapt language courses to the available facilities.

As for data collection, a variety of instruments can be used in conducting needs analysis including questionnaires, tests on learners' performance, interviews, observations, diaries and reports. Nonetheless, the teacher is not the only person who can assess learners' needs. Learners themselves can be partners in the ongoing process of gathering data about their needs and thus be partners in courses decision making. In view of that, encouraging learners to write about their needs, interests and beliefs through diaries or journals is supposed to result in improved levels of cognitive engagement and motivation in learning which in turn maintain learners' critical reflection and create opportunities for cognitive autonomy support.

Noticeably, it is important for teachers to be reflective and research-based practitioners to respond to learners' changeable needs. When needs analysis is recognized as a permanent part of the teaching process, learners' preferences, interests and deficiencies will be always taken into consideration while designing courses and selecting appropriate methods and techniques.

5.4. CREATING CONDITIONS FOR AUTONOMOUS CALL: Phase Two

Autonomy is a defining force for an effective language learning process that can be methodically promoted by the teacher. If they are reflective, EFL teachers can examine their teaching methodology, try different methods and evaluate

their effects on learners' performance. The results of the present study indicated that critical reflection is effective in developing learners' autonomy in language laboratory that has long irritated the teacher-researcher.

After suggesting a number of pedagogical implications to support autonomous CALL and proposing some areas that require critical thinking to develop practice, the researcher moves to the learner and what may improve his/her autonomy in CALL laboratory. As a second phase, the researcher suggests the creation of an environment that considers the four autonomy related factors. Thus, a number of conditions that may result in cognitive, metacognitive, affective and social autonomy support is overviewed in the following sub-sections.

5.4.1. Promoting Learners' Self-Determination

According to the cognitive autonomy definitions, learner autonomy is supported only when the learner develops the abilities of self-awareness and self-determination. In fact, the self-determination theory advocated by Deci and Ryan recommended the individual's gratification of three basic needs including autonomy, competence and relatedness to feel self-determined. According to Seifert and Sutton (2009), being self-determined, learners can pay attention and engage in activities that they perceive as valuable and attractive.

Deci and Ryan (2000) postulated that the teacher could methodically enhance learners' self-determination through creating conditions that help learners meet the three underlined personal needs without allowing the classroom control and orders interfere to impede their gratification. For instance, autonomy is promoted when learners are offered with responsibility and affiliation, reach a level of competence and feel related to others while undertaking tasks. In this case, teachers can assign learning experiences that support these requirements in order to have learners with high levels of autonomy that is considered as key to learning not only for the self-determination theory, but it is also one of the basic principles of the constructivist approach to learning.

Certainly, developing learners' self-determination would provide learners' the capacity to complete learning tasks and engage in their work. Therefore, it would be advantageous to instigate a sense of self-determination in the learner by creating opportunities that allow learners to handle responsibility for making choices. In this manner, the following are some strategies that can teachers use to improve learners' self-determination in CALL environment.

- Offering learners with opportunities to take responsibilities for solving problems, discuss content of learning, make decisions about what they want to learn and define the areas in which they feel lacking. Such opportunities allow collaboration in the classroom and enhance learners need to feel autonomous as their suggestions guide classroom practices. In fact, giving learners roles to practice in the process of planning classroom activities is supposed to offer cognitive autonomy support.
- Raising learners' awareness about their roles in CALL laboratory. As an innovative pedagogy, CALL offers learners with possibilities for self-directed learning, which assists them to be active participants in the classroom. In this sense, learners need to recognize that the teacher is not the controller who margins their contributions and limits their choices, but a tutor who guides the learning process and provides support.
- Fostering learners' needs to feel competent. Learners' limited computer literacy and lack of self-confidence coming from passive learning modes may make them consider CALL activities as complex and hard to solve. For that reason, teachers have to establish high expectations to encourage learners' positive thinking and initiate their ability to achieve success.
- Addressing learners' needs for relatedness and belongingness. Feeling related is considered as a cognitive factor to autonomous learning. When learners' feel alienated from classroom practices as responsibilities, decisions and choices due to the nature of the assigned learning experiences, their sense of relatedness disappear as they feel disengaged

and margined from classroom decisions. Thus, senses of relatedness and affiliation should be considered by the teacher through

- Giving learners opportunities for decision-making.
- Encouraging learners to express their needs.
- Welcoming learners' suggestions and opinions.
- Perceiving learners' comments as important.
- Assigning cooperative activities.
- Establishing an atmosphere that is supportive, open and positive.

The recommended strategies for promoting learners' self-determination reveal that learners' personal needs have to be given equal consideration to the design of instructional activities.

5.4.2. Supplying Self-Regulation Skills

As a metacognitive factor to autonomous learning, self-regulation refers to the learners' development of certain critical qualities about learning involving the planning, monitoring and evaluating both process and content of learning. Supplying learners with opportunities to develop such qualities is supposed to result in self-directed learning in CALL laboratory.

Accordingly, self-regulation skills can be supplied by addressing learners' goal setting, decision-making, observation and self-assessment.

Setting goals entails identifying both objectives and content of learning. This skill helps learners in directing their actions towards progress. In this manner, Salkind (2008:164) agreed, "Successful learners think about and set goals for what they want to achieve, which helps them target and direct their use of learning strategies and methods". Therefore, helping learners set effective goals is important for developing their self-regulation. Scaffolding, for instance, may be useful to define learners' weaknesses and offer the required support to set their own learning goals.

As for the development of learners' capacity to take informed decisions, teachers' need to assign experiences that contain a considerable amount of choices from which learners select what to learn. Self-regulated learners are able

to take responsibilities to select what to learn (Eggen and Kauchak, 2010). Teachers, in this case, may use CALL authoring programs, which enable them to generate simple software packages using their own instructed materials. These programs, in fact, offer a do-it-yourself approach to CALL. The recently developed CALL authoring programs are simplified to be used by teachers who are not skillful in computer programming. They comprise a number of applications which may aid language teachers create exercises to address diverse linguistic goals including comprehending, writing, grammar and vocabulary acquisition. Examples of these authoring packages include Camsoft and Wida software.

As a metacognitive strategy, monitoring refers to the process of observing the learning process for evaluation. It can be supplied through offering learners with active roles in the process of presenting the instructed material and the establishment of a supportive atmosphere. For Raya and Vieira (2015:55),

Pedagogy for autonomy involves the creation of an atmosphere of freedom that allows learners and teacher to explore possibilities cooperatively, to find out what is relevant and meaningful for them. This will contribute to the cultivation of an independent mind, encouraging learners to participate in meaningful educational experiences, explore ways in which they can profit from them and monitor their progress toward their goals

According to Schunk (2012), learners construct knowledge by observing asking, answering, commenting, solving and proposing. Thus, when they monitor what they learn, learners are said to be self-regulated. In this respect, teachers have to replace their personal interests with learners selected objectives. Schunk et al. (2008) and Stipek (2002) postulated that the goals selected by learners themselves are more effective than those imposed by others (Eggen and Kauchak, 2010). As a suggested strategy, teachers may offer learners with Encyclopedia-type programs or any other information-based software that permit them to realize their own selected goals, then during the presentation

process, ask learners to use those programs to answer or interfere to add more information when required. Examples of these programs include

- Did@browser that is a tool designed to enable learners monitor their own learning through asking metacognitive questions to activate their awareness.
- iSTART is an online application that may be used within self-access learning to guide learners' use of the internet for educational purposes. Using iSTART, learners read or listen to a virtual trainer explaining strategies to improve comprehension of learning.

After helping learners to define their own learning goals and monitor their practices, teachers are required to offer them self-assessment opportunities in order to reach a level of self-regulation. Definitely, assessing one's own performance entails critical thinking qualities that allow comparing one's own answer to a question with estimates. Consequently, it is necessary for teachers to move learners from the simple recall of details to complex response modes that necessitate awareness, reasoning and problem solving. As strategies to encourage learners' self-assessment, teachers may

- Use language-based software packages that contain specific sections designed especially to facilitate critical thinking, problem solving and self-assessment, as well as offer practice on basic language skills, including OPG.
- Create websites for learners to determine how well suited they may be for CALL experiences. For instance, Beetham (2002) suggests that learners may be offered with opportunities to perform self-assessment through the use of online logs or diaries (Donnelly and McSweeney, 2009).
- Design self-assessment questionnaires on academic skills that intent to lay the foundations for self-directed learning. Answering these questionnaires, learners are fortified to set goals, determine progress, and then plan action for development of areas of weakness.

Subsequently, autonomous learners control their own learning through metacognitive skills such as critical thinking, target setting and self-assessment. With a pedagogy as autonomy supporting as CALL, the teacher should not be the only one setting goals, monitoring learning and assessing progress. Teachers have to give learners some responsibility to evaluate progress and content of learning. Thus, in this sub-section, the researcher has offered a set of strategies to construct self-regulated learners in CALL laboratory.

5.4.3. Developing Learners' Willingness to Learn

Natural willingness to learn and progress is an affective factor to autonomous learning and a characteristic of intrinsically motivated learners. Simultaneously, Deci (2000) considers autonomy as a basic human need for intrinsic motivation that is a behaviour resulting from curiosity, engagement, satisfaction of an inner drive and interest in learning. In this regard, willingness to act autonomously is evident when learners ask questions, look for information, experiment, think and evaluate progress. As a result, affective and the metacognitive factors to autonomous learning are said to be interrelated and the same strategies may be used to develop both.

In CALL environment, learners' natural willingness to act autonomously can be promoted by addressing intrinsic motivational constructs including enthusiasm, curiosity, engagement and interests when designing learning experiences.

Vital to the development of learners natural willingness and tendency to learn and progress are enthusiasm and excitement. Henceforth, teachers need to

- Consider the enthusiastic characteristic of CALL experiences that should comprise a large volume of visual stimulation, sounds and feedback. Zaphiris and Zacharia (2006) found numerous studies of foreign language learning in technology-supported environments that revealed the success of sound, text and video combination in exciting learners internal drives as they present a real context closed to reality.

- Create problem-solving situations that provoke learners' critical thinking using CALL authoring packages. For example, designing a listening comprehension course that entails answering interactive multiple-choice questions after listening to the audio recording. To promote enthusiasm and excitement, in this case, teachers need to assign either corrective or diagnostic feedback supplemented by sound stimulation.

As for learners' interests, Renninger, Hidi and Krapp stressed that learners' curiosity and ability to direct energy towards learning are realized when the instructed material reflects their personal interests (Moreno, 2010). Therefore, addressing learners' personal interests and what may stimulate their curiosity to experience and explore are vital to the development of their autonomy. As strategies, teachers can consider learners' interests and stimulate their curiosity through

- Adjusting CALL experiences to learners' interests. Using the learning centered approach to needs analysis; teachers may identify learners' needs and interests before designing courses.
- Designing podcasts talking about topics that reflect learners' interests and needs, and offer assistance to language use by suggesting alternative expressions, new vocabulary and supporting comprehension of the speaking context.
- Creating a problem-solving environment that presents authentic problems to arouse learners' curiosity. For instance, using CALL authoring programs, teachers design gap-filling exercises flourished by feedback and sound stimulation to complete a dialogue for speaking performance with the computer, which offers a model dialogue at the end.
- Designing paradoxical assignments that poses contradictory questions in the form of timed activities performed against the computer or learners against each other to increase mental effort and

challenge in the laboratory. This category of assignments is recommended to elicit higher rates of curiosity and engagement.

- Engaging learners in Project-Based Learning processes as co-researchers and instilling them with a sense of the significance of the research. Generally, a project can be defined as a thorough investigation of a real world topic. In this concern, Frei et al. (2007:124) contended that

Students who are engaged in project-based learning take on challenging, interesting tasks. They use the appropriate tools, often-technological ones. During the project, they engage in discussing, analyzing, problem solving, and drawing conclusions in groups and individually.

Project-Based Learning is anticipated to develop learners' natural willingness and tendency as they select topics they are interested in.

A teacher who seeks to support learners' autonomy in CALL laboratory must consider all the affective factors while selecting the content of learning. The compilation of all these strategies is expected to make EFL learning in language laboratories interesting, enthusiastic and engaging. However, while stimulating learners' interests, enthusiasm and curiosity, teachers should consider that these strategies might not be fitting with all learners. Hence, they need to use the data they collect from their needs analysis studies to reflect on the utility of each strategy. Additionally, it is of central importance to collaborate with other peers to afford more support for learning and autonomy.

5.4.4. Supporting Collaborative Learning

Learner autonomy, the ability or capacity associated with self-determination, self-regulation, willingness and social support to handle responsibility for exploring and acquiring new knowledge; is considered by ELT researchers as a major element for successful foreign language learning. For that reason, a number of learner-related factors to support autonomy in CALL

laboratory is presented. Prominently, for the social autonomy support, the researcher recommends the creation of a collaborative learning environment, as collaboration is generally perceived as being beneficial to learners.

Although used interchangeably by some authors as Kohonen (1992), there are those who have drawn differences between the terms collaborative and cooperative. Nunan (1992), for instance, views collaboration as a learning experience where learners hold more control over the planning of their own learning while cooperative learning is simply a model of teaching.

Accordingly, Salkind (2008) presents collaborative learning as a pedagogy that changes traditional learning expectations by engaging learners in an active learning process that promotes critical thinking, problem-solving, group work, negotiation, belongingness, using technology, and taking responsibility for learning.

In this vein, collaborative learning is a process in which a number of learners engage together to complete a task. This process entails learners' willingness to listen to each other's ideas, suggestions and viewpoints for discussion to make decisions about the task completion. In CALL laboratory, collaboration takes place with a task or a problem-solving situation that encourages communication that may be oral, written or electronic to make joint decisions.

Collaborative CALL is largely supported by the constructivist learning theory. Collaboration offers learners with opportunities to negotiate meaning as they struggle to build new meanings and extend prevailing ones. The teacher's role in such a learning environment is to present opportunities for exploring and experiencing, and stimulate reflective thinking through assigning collaborative peer activities. In this vein, Beatty (2010: 108) assumes

Collaboration is among the most useful ways in which learners acquire language at the computer. When two or more learners sit at a computer and discuss process and content in the target language,

they often engage in scaffolded learning, helping each other improve their language.

Similarly, Stevens (1992) states that the computer in group or pair work often brainstorms learners to find the outcome of interactional sequences, and in part offers opportunities to discuss discoveries with peers and the teacher. Discussion, in this case, is rich as it includes learner-learner discussion, learner-teacher discussion and learner-computer discussion. Though dissimilar, all the three offer opportunities for negotiating meaning.

For organizing collaborative working groups in CALL laboratory, the researcher recommends Hamm and Adams (1992) structure that entails five major elements:

1. Assigning students to mixed-ability teams
2. Establishing positive interdependence
3. Teaching cooperative social skills
4. Insuring individual accountability
5. Helping groups process information

Hamm and Adams (1992: 95)

Hamm and Adams (1992) Structure gives the teacher a prominent role in arranging collaborative working groups. The structure considers first learners' competency levels and stresses the establishment of groups with learners of diverse levels. Second, Hamm and Adams (1992) speculated about the establishment of learners' interdependence that he has classified as

- ❖ Goal interdependence. Elevating each individual's knowledge about how to complete the task.
- ❖ Task interdependence. Identifying the group goal.
- ❖ Resource interdependence. Defining the materials to be used.

- ❖ Role interdependence. Specifying each learner's role in the group. Establishing the probability that every member of the group is responsible for explaining how the task is completed.

Third, collaboration at computers requires the teacher's development of learners' social skills including cooperation, communication and negotiation of meaning. Fourth, the teacher has to ensure learners' ability to be responsible members of the group. As a last element, Hamm recommended teachers' support to aid groups acquire and develop knowledge.

Though directed by learners' themselves, collaborative learning can be teacher-initiated. Thus, teachers can encourage learners to engage in collaborative CALL experiences through

- Arranging small working groups in front of one computer to complete a task or a series of tasks.
- Supporting collaboration and cooperation inside and outside of CALL laboratory and providing learners with a smooth learning environment.
- Encouraging the learners' use of e-mail for sharing information or discussing activities they are involved in.
- Permitting the use of social networking (e.g., Facebook, Instagram, and Twitter) for broader communication and collaboration.
- In case of Wi-Fi wired CALL environment, teachers can integrate weblogs and wikis to encourage peer-review and collaborative writing.
- Integrating podcasts into courses to encourage collaboration and dialogue, and thus develop critical reflection in learners.
- Designing websites to post documents and allow learners share projects and presentations, and collaborate with peers and the teacher.

Overall, engaging learners in collaborative activities by allowing them to work in pairs or groups is supposed to offer social support to learner autonomy. Nevertheless, to guarantee the efficacy of such activities, teachers should stress the mutual respect between learners, the significance of exchanging ideas, scaffolding and collaboration.

Dynamic collaboration requires mutual engagement and willingness for problem solving, rather than just communication or meaning negotiation. Collaboration in CALL environment entails that learners hold a sense of others' acceptance, understanding of their own and their peers' roles, comprehension of the assigned task, in addition to other necessary context information.

To sum up, the following figure represents a synopsis of the researcher's reflections that are presented in terms of strategies and techniques for teachers to foster some of the autonomy-related conditions that are necessary for learners to direct and control their own learning in CALL laboratory.

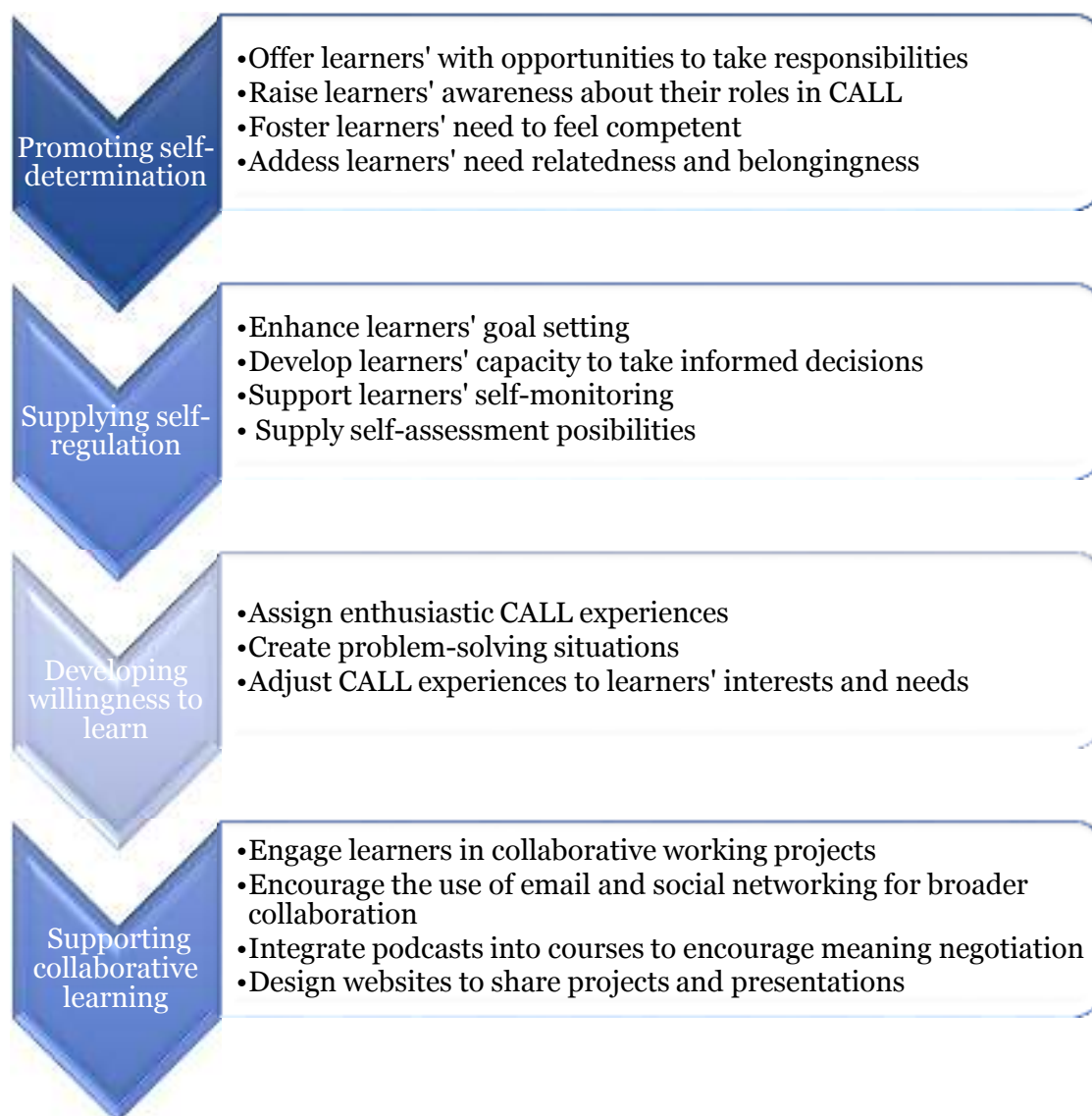


Figure 5.3. Strategies to Offer Cognitive, Metacognitive, Affective, Social
Autonomy Support in CALL

5.5. DEVELOPING A RESEARCH PLAN: Phase Three

Research is a systematic enquiry that can be conducted to improve teaching and learning. As processes, teaching, learning and research share some common principles. They all aim at enhanced metacognition to acquaint and direct action, and the efficiency of each can be clarified in terms of the degree to which action is cultivated and reflected up on by individual metacognition.

With research-based insights, compassion for teachers, humor, and practical examples, ***Teach, Reflect, Learn*** provides a road map

for teachers' journey to success, helping them past the bumps they'll inevitably experience along the way and empowering teachers to, as they write, 'always strive to be a better you.

(Bryan Goodwin qtd. in Hall and Simeral 2015: i)

Reflective practice can be considered as a research process by which practitioners use their reflections to amplify strengths and recognize weaknesses. Therefore, making inquiry part of the teaching practice is the third phase to be followed by reflective teachers to evaluate the effects of their applied strategies and techniques on learners' performance. Researching implemented teaching strategies and techniques can result in findings that would not have become realized without a systematic study, and these findings ultimately lead to new refinements in teaching practice. Thus, it is extremely valuable to develop a detailed plan for research.

Generally, the teacher's research that focuses on teaching concerns within a learning environment is termed by Carr and Kemmis (1986) as action research, which is considered as a form of action learning and self-study as well. Kemmer's (2000) work deliberated action research as a methodological rough practice of action learning that is based on developing understanding from experience (Campbell and Norton, 2007). This approach to educational enquiry engages teachers in the planning, data gathering, and interpretation of data around a specific focus. Typically, once a focus is selected, the next step in the journey is developing a plan for the research and choosing data collection methods. Hubbard and Power (1999) proposed that teacher-researchers design a research plan, described as, "a detailed outline completed before the research study begins" (qtd. in Dana and Yendol-Hoppey 2014: 134).

Nonetheless, developing a research plan in an educational setting is more than gathering data. It is to make a link between the gathered data and comprehending them. When the collected data is reflected up on, different concepts raise. Reflective notes in a journal entry hope to consider these concepts to save them. Sometimes they are part of an action research as it is in

the present study: the researcher recorded reflective notes answering specific questions. For the development of a research plan evaluating the effects of the teaching strategies and techniques for cognitive, metacognitive, social and affective autonomy-support; the researcher suggests a number of stages. The following figure represents the suggested stages in a cycle or spiral.

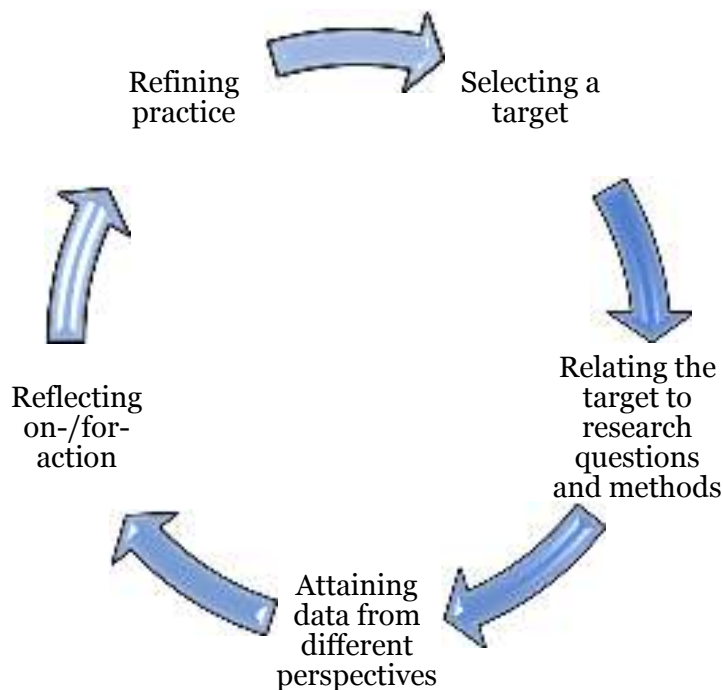


Figure 5.4. A Typical Research Plan Cycle

The suggested cycles of research plan shown in figure 5.4, portray action research as a continuous spiral of cycles, which may be repeated until the teacher-researcher achieve the satisfactory outcome.

- **Stage one:** After identifying the research focus, divide it into small targets, then transform each target to a “how do I ...?” action research question.

Research Targets	How do I ...? Research questions
I want to assess my learners' autonomy in CALL laboratory.	How do I assess my learners' autonomy in CALL laboratory?
I want to evaluate the effects of my teaching techniques and strategies on my learners' autonomy.	How do I evaluate the effects of my teaching techniques and strategies on my learners' autonomy?
I want to find other ways to support my learners' autonomy in CALL laboratory.	How do I find other ways to support my learners' autonomy in CALL laboratory?

Table 5.1. The First Procedure in Developing a Research Plan

- **Stage two:** associate the underlined research targets and questions to research methods. Teachers as researchers could set out this step as follows:

Research Targets	How do I ...? Research questions	Underpinning methods
I want to assess my learners' autonomy in CALL laboratory.	How do I assess my learners' autonomy in CALL laboratory?	Tests/observation.
I want to evaluate the effects of my teaching techniques and strategies on my learners' autonomy.	How do I evaluate the effects of my teaching techniques and strategies on my learners' autonomy?	Welcoming peer-observers/interviewing learners.
I want to find other ways to support my learners' autonomy in CALL laboratory.	How do I find other ways to support my learners' autonomy in CALL laboratory?	Invite learners' participation through journaling or diaries writing/collaborate with colleagues.

Table 5.2. The Second Procedure in Developing a Research plan

Following these procedures offers teachers an explanatory background that gives them direction and rationale. This background shows clearly why the research is conducted and what teachers hope to achieve from.

- **Stage three:** setting the research targets, questions and underpinning methods, teachers as action researchers need to gather a representative

amount of data from different perspectives using any of the methods described in chapter three. Noticeably, teachers are recommended to gather data with a careful consideration to their designed question. For instance, when they try to answer, “How do I assess my learners’ autonomy in CALL laboratory?” they have to seek for data that represent learners’ autonomy in action, or possibly, what could be the reasons for the low/high autonomy level? Teachers need to look for details that may be turned into evidence. In research about how do I evaluate the effects of my teaching techniques and strategies on my learners’ autonomy? A teacher-researcher may receive a note taking from a peer-observer, which shows how authoring packages are not well designed to allow self-assessment. Teachers could also highlight entries from learners’ diaries that they need to design weblogs for posting documents and broader communication to allow self-access learning. Consequently, teachers should collect representative data from diverse sources to analyze the situation and reflect on the way they responded to the situation. They are trying to comprehend the effects of their teaching strategies and techniques, as the basis of action designed for the sake of improvement. In this manner, Dana and Yendol-Hoppey stress, “By employing multiple strategies, you are able to build a strong case for your findings by pointing out the ways different data sources led you to the same conclusions” (2014: 134).

- **Stage four:** making judgments about the collected data. Teachers in language laboratories are expected to monitor their practices as they try to promote learner autonomy, in relation with other participants. Thus, they need reflections on and for action to make judgments about whether or not their teaching techniques and strategies are contributing to learner autonomy. These two types of reflection are recommended as they offer reflective practitioners with opportunities to think critically after the action is completed. As they evaluate their practice in relation to their

learners' performance, teachers need to assume whether or not they reach their designed objectives.

- **Stage five:** refining practice in the light of the judgments. In the light of what they have found, teachers have to either continue working or change their ideas and practices. If they find that their teaching strategies and techniques are practically suitable in terms of learners' autonomy, they will almost certainly continue teaching like this as long as it remains suitable. This state may not resist for a long time because technology introduces innovations all the time and learners' needs and interests change as well. This is, arguably, one of the delights of being reflective practitioner because teachers need to continuously think and research their practice. One research target leads to another, and one question can set the stage for new questions as teachers persistently reflect. Nothing rests static. Reflective teachers as action researchers need to continuously change their high standards. This research process is supposed to aid teachers consider and change their practices, and engage in an ongoing cycle of action and reflection. Researching one target can result in a new insight. This insight leads to a new action, and the action can initiate new learning. It is an ongoing process that helps teachers realize the areas of strength and weakness in their performance, and establish new insights for new practices. Teachers, this way, create future actions based on their present. The following is an example that shows how a leading question develops into cycles, and how this research question changes its emphasis.

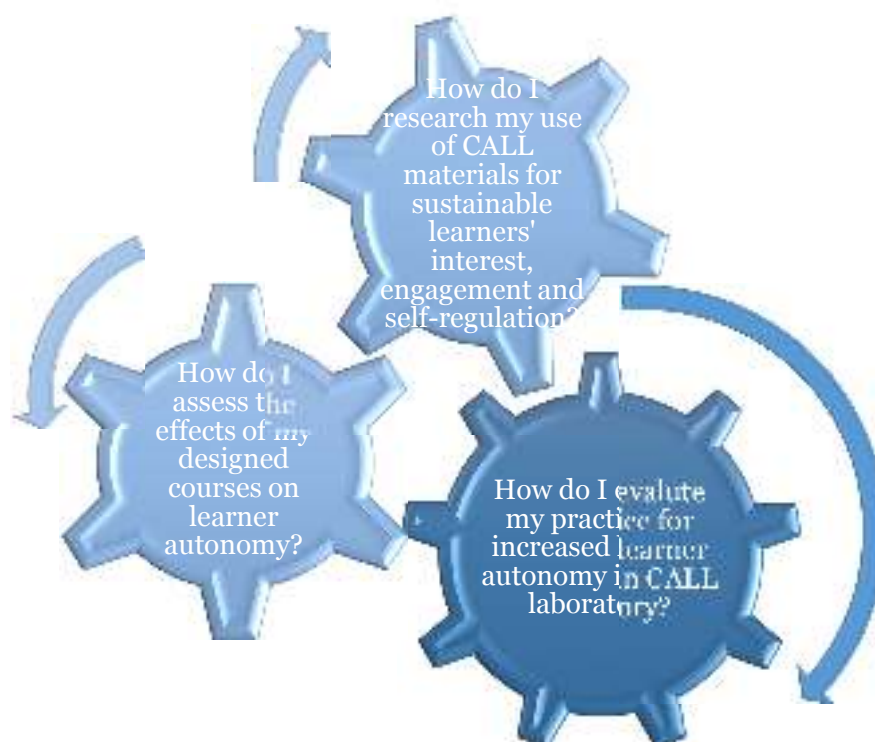


Figure 5.5. The Development of a Research Cycle to Subsequent Cycles

This section has put forward practical stages about planning to investigate an educational emphasis. It has set out a possible research plan, and suggested what teachers need to do in terms of the practical aspects of each stage. The section has also recommended that the design of a research plan is necessary for teachers as reflective practitioners to account for what they do.

By planning research as part of their daily practice in CALL laboratory, teachers evaluate their methodology for increased learner autonomy; show how their present practice is the best they can perform; and use it as a basis to consider, refine or develop their future practices. Thus, they may account for further cycles to improve the situation, or negotiate the findings with colleagues as part of their ongoing professional development.

5.6. MAKING YOUR INQUIRY PUBLIC: Final Phase

Throughout this chapter, the researcher tried to consider all the possible elements to make it seem easy to not only start, but also go on through the processes of reflective practice and action research to maintain an autonomy

supporting CALL. Becoming reflective; creating conditions for autonomous CALL; developing a research plan and integrating research into practice through collecting data, analyzing them and drawing conclusions. The last suggested element would be making the research public through sharing the working journey with colleagues to assess the quality of teaching and inquiry.

In this vein, Strong-Wilson (2006) supported the notion of public discussion as part of the reflective and research processes. In case researchers decide to engage in additional spirals of action research to expand the studied emphasis, they share their research findings with others as part of their ongoing professional development (adapted from Kemmis and McTaggart, 1988). Besides, Altrichter et al. (2005) considered public discussion as the last and most important stage of action research as it offers teachers with the opportunity to reflect-on-practice, which refine initial understandings and promote additional interpretations.

Reflective teaching demonstrates the teachers' self-awareness to recognize the strengths of their own practice. Pollard (1997) argues that effective reflection on teaching requires a set of components including research conduction, collaboration with peers and readiness to share and engage in reflective dialogue.

Therefore, sharing the research results with colleagues is strongly recommended to evaluate teachers' abilities to become proficient action researchers. Accordingly, Lieberman and Wood (2002) contended that teachers who investigate their practice and share what they find with their colleagues have great self-confidence, understanding of teaching and critical thinking.

5.6.1. The Importance of Sharing the Research Results

When shared with colleagues and broader population, the research findings are claimed to demonstrate in a general manner how much teachers learn and grow. There is also the benefit of recognizing how much more there is still to realize for becoming a good teacher. In addition, it serves as a strategy to bring changes to others' practice.

As teachers engage in the process of sharing enquiry findings, their reflective practice is, considerably, made public for discussion and debate, and the process of teaching becomes accessible to others. Thus, sharing enquiry results is significant for teacher-researchers, learners, colleagues and the teaching profession as a whole. For teacher-researchers and colleagues, the process of sharing helps clarifying the way teachers think about their work as they question, discuss and debate their own practice. They extend thinking and create new knowledge when experimenting each other's pedagogies in their individual classes. The sharing process can cause changes in learners' learning as they are investigated to develop teachers' practice (Dana and Yendol-Hoppey, 2014). For instance, when a group of learners who were having difficulty fitting into the pedagogy of CALL laboratory because they did not qualify in traditional pedagogies. Teachers' inquiry investigated the group and found that the traditional pedagogies were not fitting in CALL laboratory. Making the research results public, teachers and colleagues discuss facts and advocate new pedagogies for change.

As a result, this act of sharing enlightens teachers practice, addresses the development of learners' performance and contributes to educational reform. Kincheloe (1991:14) states,

The plethora of small changes made by critical teacher researchers around the world in individual classrooms may bring about far more authentic educational reform than the grandiose policies formulated in state or national capitals

In this line of thought, Altrichter et al. (2005) outlined a number of advantages of sharing teachers' knowledge resulting from action research projects. First, they claimed that public reporting protects teachers' gained knowledge from being forgotten in two senses of the word: by sharing and discussing researches teachers fix it profoundly in their memories, in addition they make it accessible to others. As a second advantage, making experience public enhances the teachers' reflection on action. By public discussion, teachers

exhibit willingness to reflect deeply about their practice as they comment on and criticize each other's practice. Thirdly, teachers' public discussion of action research results may bring change to educational policy by dint of rational argument. Fourth, by sharing their research results teachers encounter the requests of the teaching responsibility as the necessity to include innovative methodologies in technology supported environments. As a fifth advantage, the act of sharing gives teachers an active role in teacher professional development and personalize teacher education. The sixth advantage is the development of the teachers' self-confidence as they hold willingness to discuss both strengths and weaknesses. Lastly, teacher-researchers' experience sharing improves the reputation of the teaching profession, which may be widely criticized by parents and media, as teachers' contribute to the establishment of professional knowledge based on participating in public debate.

In CALL laboratory, the professional teacher is advised to collaborate with peers to discuss research results, share pedagogies, explore ways to overcome obstacles, try alternative resources for various learning situations and investigate autonomy supporting strategies to bring learners to a profounder cognitive engagement, metacognitive awareness, motivation to explore and experiment and collaboration.

5.6.2. Strategies for Sharing

There are many strategies that teachers can use to make their inquiry public. Teachers can share the findings of their researches with local peers, supervisors and other professionals in regular seminars through interviews and reflective questioning to gain feedback. They may meet together monthly to collaborate and share ideas, attainments and experiments, and to bring these back to their own classrooms.

In fact, reflective questioning is defined by Lee and Barnett (1994:17) as, "a technique in which one person prepares and asks questions that are designed to provide opportunities for the respondent to explore his knowledge, skills, experiences, attitudes, beliefs and values". Incorporating reflective questioning,

teachers need to form study groups to discuss their own inquiry results and other related inquiries. This way helps respondents explore their own thinking, evaluate performance and make judgments. Reflective questioning is based on role-play, participants' self-awareness and willingness to question the results of their work. Through reflective questioning, participants receive feedback on their inquiry results from each other to critically reflect on what and how they teach, which in turn helps them to refine and expand their skills.

Other strategies to make inquiry results public are PowerPoint presentations and posters in seminar style discussions. Using these strategies, teachers can organize workshops and invite colleagues to present orally background information about the research topic including problem, rationale, design, and concluding contemplations. As a last step, teacher-inquirers welcome debate and discussion to exchange feedback in order to support reflection and develop knowledge. In this context, Burn (2010) advocates workshop presentations to share action researches and interact with colleagues who did not participate in the research.

Audiovisual methods presented in weblogs have recently proved to be a popular way of sharing due to the marked number of viewers that they gain. Podcasting, as an example, may be suggested as a strategy for sharing research results with colleagues, learners and parents. Teacher-researchers can create podcasts that offer oral description of the problem or the emphasis they have investigated, the process of data collection, and the drawn conclusions. To get more comments on the podcast, teachers can end up their speech by asking the audience what they would do in this situation to seek for more solutions and collect feedback.

Written reports or documents are said to be common strategies for distributing action research results. They may not be useful for discussing teachers' findings, as they do not offer any option for giving feedback, but they may be used to make the research results public. Indeed, written documents can

take the form of short articles published in magazines or journals, or expanded to chapters edited books.

5.6.3. Generalizability and Transferability

Among the various premises of sharing inquiry results, there is the benefit of bringing the others experiences to one's own context to refine methodologies and develop practice. This benefit can be considered as an outcome of generalizing research results and transferring them from one situation to other similar situations. Generalizability can be defined as the extension of research findings from a studied sample to a large population. According to Chalhoub-Deville et al.

Generalizability refers to the extent to which research results can justifiably be applied to a situation beyond the research setting. What are the characteristics of the domain, e.g., the learners and tasks, to which the results apply? The characteristics of the learners under investigation and the larger group to which we want to generalize or transfer our results are issues to consider when discussing generalizability. (2006: 3)

Whereas transferability refers to the connections made by readers of a research work to compare the focus or problem of a research work and their own experience with that problem. The two processes are not exclusive as generalizability depends on the transferability of the research findings. Barnes et al. view transferability as,

A process performed by readers of research. Readers note the specifics of the research situation and compare them to the specifics of an environment or situation with which they are familiar. If there are enough similarities between the two situations, readers may be able to infer that the results of the research would be the same or similar in their own situation. In other words, they “transfer” the results of a study to another context. (qtd. in Dana and Yendol-Hoppey 2014: 217)

Hence, as teachers share the results of their action researches with colleagues, it is significant for them to discuss the details of their teaching practices and research plans. The significance of this discussion lies in two facets: they try to understand the degree to which the findings are applicable to other populations that is referred to as generalizability, and they seek to recognize the ways a colleague's action research may inform their practice that is termed as transferability. Therefore, teachers need to assess the implications of generalizability and transferability of other teachers' action research before bringing their findings to their classrooms and practices. For instance, when assessing the transferability of the other's inquiry results, teachers may ask the question of what are the similarities and the differences between my teaching situation and the teacher-researchers' situation? To offer an answer to this question, teacher-researchers must supply a very detailed written or oral description of their teaching situation and research plan.

To sum up, teachers who intend to generalize the research findings of their colleagues have to consider all the possible variables involved in the study including the emphasis of the study, the characteristics of the selected sample and the methods used for data collection. Furthermore, if teachers want to transfer the results of their peers' action researches to their situation, they have to discuss with researchers and reflect carefully on the circumstances surrounding the conduction of the research.

5.7. CONCLUSION

As far as this chapter is concerned, the investigator has tried to, hopefully, suggest and recommend a set of implications that may promote EFL learners' autonomy in CALL laboratory addressing the main weaknesses identified throughout the conduction of this study, and to supply the autonomy supporting factors that are required for autonomous CALL.

Therefore, a number of recommendations were proposed in terms of stages that teachers have to follow for maintaining autonomous CALL. The first recommended stage calls teachers to become reflective about their practice

including the methodology used, and their learners' roles and needs in the laboratory. As a second stage, a number of strategies reflecting the four factors mediating autonomous learning was put forward to enhance autonomous CALL.

Making inquiry and reflection part of the teaching practice occupies the third stage that reflective teachers have to follow in order to evaluate the effects of the suggested strategies on learners' autonomy. Throughout this section, the researcher has proposed a number of steps to develop a typical research plan.

As a final phase, the researcher suggests public discussion or presentation to share the research results with the concerned community. Typically, sharing the research results aims at developing the three types of reflective practice at all levels, and making teacher-research experiences accessible to other teaching practitioners.

Chapter six

Drawing the Conclusions

CHAPTER SIX

Drawing the Conclusions

- 6.1. SUMMARY OF THE STUDY
- 6.2. RESEARCH DESIGN PROCEDURE
- 6.3. RESULTS ACHIEVED AND CONCLUSIONS
- 6.4. RECOMMANDATIONS
- 6.5. SUGGESTIONS FOR FURTHER RESEARCH

6.1. SUMMARY OF THE STUDY

Autonomy in learning can be defined as learners' readiness to direct and control their own actions in service of their interests, needs and goals. This may be considered as an ability, capacity, competence or responsibility. Autonomy is a dynamic factor by which learners acquire language skills and adjust their thoughts, attitudes and actions. Despite the significance of autonomy to learners' functioning and prosperity, capacity or competence to direct and control learning is not well addressed in EFL classrooms.

In fact, learner autonomy involves factors that promote self-awareness and self-determination; foster the planning, monitoring and evaluating of learning experiences; sustain interest and desire to learn; and develop willingness to cooperate with others. In the EFL context, learner autonomy is an observable and assessable skill that not only learners bring to the classroom but also teachers can develop, promote and support using various resource and innovative pedagogies. Recently, developing learner autonomy in the area of language education can be accomplished through the strategic use of CALL resources to promote self-direction, self-determination, self-regulation, willingness and self-directed learning. Nevertheless, strategic use of CALL for increased learner autonomy requires teachers' critical reflection to constantly refine and develop practice to address learners' interests, needs and goals.

Accordingly, the factors mediating autonomous learning, teachers' reflective practice and CALL pedagogy are the three major concepts that have been used in this research work to illustrate the significance of teachers' critical reflection for developing autonomy supporting strategies in CALL laboratory. Research problems raised in this study revolve around why innovation and change in the learning environment should be accompanied by changes in the teaching methodology used and how can teachers' reflective practice assist and support learners' autonomy.

This investigation represents theoretical and practical frameworks to portray the role of critical reflection in innovative language learning

environments, and its copiousness of accurately pioneering and creative strategies supporting learner autonomy in language laboratories. Researches in CALL environment have shown its efficiency in supporting learner autonomy and at the same time argued that the majority of teachers recognize the role of CALL in maintaining learner autonomy. However, without incorporating innovative pedagogies, teachers may be at a loss as to how to support learner autonomy while simultaneously accomplishing more linguistic goals.

The main issues here are that many EFL learners encounter the problem of autonomy in CALL laboratory and teachers are not reflective about their teaching methodologies to meet the requirements of the new environment. In a long term, reflective practice can make teachers become more aware about their performance as to what to adjust to solve the problem of learner autonomy. These preliminary reflections constituted a strong motive to conduct the present inquiry.

Therefore, the present investigation is an action research on first year EFL learners at Naama university center; targeting primarily at arguing for the significance of reflective teaching practice to solve the problem of learner autonomy in CALL laboratory. To inquire this claim, six chapters were devoted. The first is an introductory one aiming at setting out basic elements for this investigation to methodologically plan the research framework; stating the rationale of the study; the designed objectives; and the research questions and hypotheses. It also highlighted the limitations and the delimitations of the investigation at hand.

The following chapter, named critical review of relevant literature, tried to cope with the main key concepts used in this research work. In addition, it underlined similar studies undertaken in the same scope of research. Indeed, emphasis was placed on the key concepts and their interaction with each other to form theoretical and conceptual approach to reflective teaching practice in service of adjusting innovative pedagogies in CALL laboratory to deal with the problem of learner autonomy.

In the third chapter, the researcher has first offered a brief description of the ELT situation in Algerian higher education. This chapter, considerably, explained the research methodology adopted to conduct this study. As for the sample population, the researcher selected randomly 60 first year EFL learners and 5 teachers from the English section of Naama university center. Further, the researcher has made use of four data collection methods. Learner autonomy questionnaire administered at the onset and the final phase of the action research. Classroom observation in terms of two checklists conducted by the teacher-researcher in two different phases of the action research, and note taking conducted by peer teachers to identify weaknesses in the teacher's performance. Journal entry was also used as a reflective practice to collect more insight for the development of the action plan. Additionally, teachers' interview was incorporated to share the inquiry results with colleagues and discuss the utility of reflective practice to develop teachers' performance.

The fourth chapter targeted to analyze and interpret the collected data, displayed the obtained results chronologically following the order of the action research phases. Throughout the analysis of the different research methods employed, the researcher has tried to answer the research questions raised at the onset of the study. The fifth chapter aimed at providing practical suggestions and recommendations for supporting learner autonomy in CALL laboratory through reflective teaching practice. Eventually, this final chapter attempted to sum up the present investigation and draw the probable deductions from this action research, and raise other questions that may be investigated in further studies.

6.2. RESEARCH DESIGN PROCEDURE

The present investigation is an action research on first year EFL learners at Naama university center during the academic year 2016-2017. It is based on the teacher's reflective practice to develop an action plan for supporting learner autonomy in CALL laboratory. The sample population is composed of 60

learners and 5 teachers. The teacher researcher incorporated the following data attainment methods.

- Learner autonomy scale administered at the onset of the study to assess learners' level of autonomy, and at the end to evaluate the autonomy supporting factors of the adopted action plan.
- Participant observation prior and after the adopted action plan.
- Peer-observation throughout the first semester.
- Reflective journaling throughout the first semester.
- Teachers' interview at the end of the investigation.

6.3. RESULTS ACHIEVED AND CONCLUSIONS

Expectantly, the raised research questions have been answered, and fascinating insights were achieved as well. It was realized that CALL environment does not necessarily improve learners' autonomy. It has been found that EFL teachers' reflective practice supported by inquiry plays a major role in the development of their performance to meet learners' interests, needs and goals in CALL laboratory. Learners with defined roles and goals have high opportunities to be responsible and direct their own learning. Moreover, reflecting on CALL experiences that elicit high levels of self-determination, self-awareness and self-regulation drive learners to act autonomously. Henceforth, positive effects result from teachers' reflective practice, i.e., throughout this action research, it was found that there is a development in teacher-researcher's performance to sustain learner autonomy in CALL laboratory. Reflecting on strengths and weaknesses leads to alternative methodologies, which lead to developed learner autonomy. The inquiry results can be summed up as follows:

- ❖ As for learner autonomy questionnaire, the results of the paired-samples t-test formula indicated the development of EFL learners' autonomy after the teacher's reflective practice. The scale is composed of three main parts:

- The t-test result of the scale's first part reflects a negative value: -12,07, which means that learners' scores of the pre-test are lower than their scores of the post-test.
- The t-test result of the self-direction test is -18, which denotes the development of learners' scores in the post-test.
- The t-test result of the scale's last part (role of class teacher) reflects positive value: 22,2, which demonstrates the diminution of the teacher's role after the adopted action plan.
- The eta squared results of the scale's three parts have also denoted the large effect size of the adopted action plan.

The analysis of learner autonomy questionnaire revealed that learners' autonomy in CALL laboratory was largely supported and promoted due to the teacher's reflective practice.

- ❖ After reflecting on peer-observation results and the journal entries, the teacher recognized several weaknesses in her performance that necessitate a refinement in the teaching methodology used including the distribution of roles in the laboratory, the designed courses and the assigned activities.
- ❖ Through peer observation, it was found that the teacher's performance to promote learner autonomy in CALL laboratory was incompatible, as the designed courses did not offer opportunities self-directed learning.
- ❖ The teacher-researcher's reflection on the journal entries revealed the importance of reflective writing for the development of a better understanding of the teaching situation. The entries demonstrated the inappropriateness of the teaching methodology in CALL laboratory and directed attention towards the importance of reflection for action to advance a strategy for adjustment.
- ❖ Participant observation results have shown that the adoption of OPG software as a result of reflection for action has brought significant changes in learners' autonomy. High levels of interest, attention, engagement, self-

awareness and self-regulation were rated as high in almost all the observed sessions.

- ❖ The findings of the present investigation implied that EFL teachers may support their learners' autonomy in CALL laboratory by continuous reflection to adjust materials and activities that are consistent to learners' interests, needs and goals, and simultaneously respond to the quickly changing nature of CALL resources.

6.4. RECOMMENDATIONS

The findings have demonstrated that language teachers using CALL laboratories are called for reflective practice to promote their learners' autonomy through creating a supportive environment that encourages them to take responsibilities, make decisions and hold influential roles. EFL teachers should reflect to develop strategies that address the four factors mediating autonomous learning. They may assist learners to be aware self-determined and self-regulated. They can also help learners plan, monitor and evaluate progress and content of learning. For the social autonomy support, teachers may create opportunities for collaborative learning. After the development of such strategies, teachers are recommended to design a research plan to assess the efficiency of their developed strategies on learners' autonomy.

Furthermore, the teacher-researcher's reflective practice, and the results obtained from this research work, signposted that there is an exigent requirement for sharing research results with peer teachers. In this context, a number of suggestions and recommendations have been proposed to make teachers' inquiry results public with a view to constantly develop and update teaching methodologies to overcome problems as learner autonomy in CALL laboratory.

6.5. SUGGESTIONS FOR FURTHER RESEARCH

Apart from the accomplished findings, there were some limitations to be recognized in the current investigation. To cite some, and because of the limited contact with peer teachers, peer observations were limited to two sessions and

less. There were three teachers who observed two sessions and one teacher observed only one, and others did not come as they live far from Naama and their working days are different from the researcher's ones. Further, the same problem was faced while conducting the interview to discuss the utility of reflective practice in dealing with the problem of autonomy in CALL laboratory and share the achieved results. Small number of teachers participated in the interview, which effected the generalizability of the results.

Additionally, learner autonomy is said to be a non-linguistic skill; thus, it seems inevitable to assess it. Learners, to a certain level, may report positive results about themselves that do not reflect the real situation. Indeed, learner autonomy was assessed through learner autonomy scale and participant observation checklist; however, it would be wiser if it had been assessed by other teachers or examiners at the onset of the study.

Beyond the current investigation, there are some areas of inquiry in technology-supported language education that are still carrying out constant research to follow the inventions technology is introducing every day. These areas would provide more insight about CALL applications to develop learner autonomy and, hence, open the door for farther research.

The realized findings from the present action research represent, considerably, interesting new opportunities for inquiry within the areas of reflective teaching practice, language laboratory and learner autonomy. Henceforth, it seems significant the results of the present investigation, that may be deliberated as a prelude for further research based on the encountered limitations and shortcomings. Based on the research process as a whole, the researcher is stimulated to propose the teachers' organization of regular meetings to discuss learners' interests, needs and goals; teaching problems; research areas in EFL classes; and make research results subject to discussion and critical reflection.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Abdellatif, Mami, N., 2013, Teaching English under the LMD Reform: The Algerian Experience. World Academy of Science, Engineering and Technology 76 2013, 243-246
- Aggarwal, J.C. (2005). Essentials of Educational Psychology. Delhi: Vikas Publishing House PVT LTD.
- Alatis, J.E. (1995). Linguistics and the Education of Language Teacher: Ethnolinguistic, Psycholinguistic, and Sociolinguistic Aspects. Washington: Georgetown University Press.
- Altrichter, H., Posch, P., and Somekh. B. (2005). Teachers Investigate their Work: An Introduction to the Methods of Action Research. London: Routledge.
- Ashwin, P., Boud, D., Coate, K., Hallett, F., Keane, E., Krause, K., Leibowitz, B., McLean, L., McArthur, J., McCune, V., and Tooher, M. (2015). Reflective Teaching in Higher Education. London: Bloomsbury.
- Atweh, B., Kemmis, S., and Weeks, P. (1998). Action Research in Practice. New York: Taylor and Francis Group.
- Babad, E. (2009). The Social Psychology of the Classroom. UK: Taylor and Francis Group.
- Balacheff, N., Ludvigsen, S., Jond, T., Lasonder, A., and Barnes S. (2009). Technology Enhanced Learning: Principles and Products. USA: Springer Science+Business Media B. V.
- Bassou, A. (2015). A Reflection upon the Factors Mediating Autonomous Learning: An Analysis of First Year Secondary School ELT Textbook. PhD Thesis. Tlemcen University. Algeria.
- Beatty, K. (2010). Teaching and Researching Computer Assisted language Learning. London: Pearson Education Limited.
- Beetham, H. (2002). Developing Learning Technology Networks Through Shared representations of Practice. Source Project Publication: PUB-OU-55.

- Benson, P. (2000). Autonomy as Learners' and Teachers' Right. In B. Sinclair, I. McGrath, & T. Lamb (Eds.), *Learner Autonomy, Teacher Autonomy: Future Directions* (pp. 111-117). Essex: Pearson Education Ltd.
- Benson, P. (2001). *Teaching and Researching Autonomy in Language Learning*. Harlow: Pearson education.
- Benson, P. (2001). *Teaching and Researching Autonomy in Language Learning*. London: Longman.
- Benson, P. (2003). Learner Autonomy in the Classroom *Practical English Language Teaching*, 1, 289-308.
- Benson, P. (2007a). 'Autonomy and its Role in Learning'. In Cummins, J. and Davison, C. (eds.), *International Handbook of English Language Teaching* (pp. 733-746). USA: Springer Science+ Business Media LLC.
- Benson, P. (2007b). Autonomy in Language Teaching and Learning. *Language Teaching*, 40(01), 21-40. doi: 10.1017/S0261444806003958
- Benson, P. (2008). Autonomy in and out of Class. In P. Benson, L. Dam, and L. Legenhausen (Eds.), *Learner autonomy: What Does the Future Hold?* (pp.1-12). *Proceedings of Spain TESOL*. 190
- Benson, P. (2009). Making Sense of Autonomy in Language Learning. In R. Pemperton, S. Toogood, and A. Barfield (Eds.), *Maintaining Control: Autonomy and Language Learning*. Hong Kong: Hong Kong University Press.
- Benson, P. (2013). *Teaching and Researching Autonomy* (2nd ed.). New York: Routledge.
- Benson, P. and Lor, W. (1998). Making sense of autonomous language learning: Conceptions of learning and readiness for autonomy. *English Centre Monograph*, No.
- Benson, P., and Lor, W. (1998). *Making Sense of Autonomous Language Learning*: Hong Kong University: English Language Center.

- Benson, P., Chik, A., and Lim, H. (2003). *Becoming Autonomous in an Asian Context: Autonomy as a Social Cultural Process*. In D. Palfreyman and R. Smith (Eds.), *Learner Autonomy across Cultures: Language Education Perspective* (pp. 23-40). Basingstoke: Palgrave Macmillan.
- Bentham, S. (2008). *Psychology and Education*. Routledge: Taylor and Francis Group.
- Biggam, J. (2008). *Succeeding with your Master's Dissertation: A Step-by-Step Handbook*. USA: Routledge.
- Blake, J. R. (2008). *Brave New Digital Classroom Technology and Foreign Language Learning*. Washington: Georgetown University Press.
- Blumenfeld, P., Fishman, B. J., Krajcik, J., Marx, R. W., & Soloway, E. (2000). Creating usable innovations in systemic reform: Scaling-up technology-embedded project-based science in urban schools. *Educational Psychologist*, 35, 149–164.
- Bordens, K. S. and Abbott, B. B. (2011). *Research Design and Methods: A process Approach*. New York: McGraw-Hill Companies Ink.
- Boud, d., Keogh, R. and Walker, D. (1985). *Reflection: Turning Experience into Learning*. London, Kogan Page Ltd.
- Braden, K. V. (2009). Diffusion and Implementation of Innovations. In Long, M. H. and Doughty, C. J. (eds.), *The Handbook of Language Teaching* (pp. 659-762). UK: Blackwell Publishing Ltd.
- Brett, D. and González-Lloret (2009). 'Technology-Enhanced Materials'. In Long, M. H. and Doughty, C. J. (eds.), *The Handbook of Language Teaching* (pp. 351-370). UK: Blackwell Publishing Ltd.
- Brindley, G.R. (1984). *Needs Analysis and Objective Setting in the Adult Migrant Education Program*. Australia: AMES.
- Brophy, J. (2004). *Motivating Students to Learn*. New Jersey: Lawrence Erlbaum Associates Ink.
- Brophy, J. and Pinnegar, S. (2005). *Learning from Research on Teaching: Perspective, Methodology and Representation*. UK: Elsevier Ltd.

- Broughton, G., Brumfit, C., Flavell, R., Hill, P., and Pincas, A. (2003). Teaching English as a Foreign Language. Taylor & Francis e-Library.
- Brown, D. H. (2000). Principles of Language Learning and Teaching. USA: Addison Wesley Longman Ink.
- Brown, D. H. (2007). Teaching by Principles: An Alternative Approach to Language Pedagogy. USA: Pearson Education Ink.
- Brown, P. C. (2002). Project-based teaching promotes autonomy in L2 learning. In A. S. Mackenzie & E. McCafferty (Eds.), Developing autonomy (pp. 89-96). Proceedings of the JALT CUE Conference 2001. Tokyo: The Japan Association for Language Teaching College and University Educators Special Interest Group.
- Brumfit, C. and Mitchell, R. (1990). Researching in the Language Classroom. Great Britain: The British Council.
- Burns, A. (2005). Action research. In E. Hinkel, (Ed.), Handbook of Research in Second Language Teaching and Learning (pp. 240-256). NJ: Lawrence Erlbaum.
- Burns, A. (2010). Doing Action Research in English Language Teaching: A Guide for Practitioners. New York: Routledge.
- Byram, M. (2000). Encyclopedia of Language Teaching and Learning. London: Taylor and Francis Group.
- Cameron, K. (1989). Computer Assisted Language Learning: Program Structure and Principles. Great Britain: Intellect Limited.
- Campbell, A., and Norton, L. (2007). Learning Teaching and Assessment in Higher Education: Developing Reflective Practice. UK: Learning Matters Ltd.
- Candlin, N. C. and Mercer, N. (2001). English Language Teaching in its Social Context. Routledge: Taylor and Francis Group.
- Chalhoub-Deville, M., Chappelle, C.A. and Duff, P. (2006). Inference and Generalizability in Applied Linguistics: Multiple Perspectives. Philadelphia: John Benjamin Publishing Company.

- Chapelle, A. C. (2003). *English Language Learning and Technology: Lectures on applied linguistics in the age of information and communication technology*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Cline, T., Gulliford, A., and Birch, S. (2015). *Educational Psychology: Topics in Applied Psychology*. London: Routledge.
- Coetzee, S.A., Neikerk, V. and Wydeman, J.L. (2008). *An Educators Guide to Effective Classroom Management*. Pretoria: Van Schaik Publishers.
- Cohen, L., Manion, L. & Morrison, (2011). *Research Methods in Education*, New York, Routledge. 7th edition
- Cohen, L., Manion, L. and Morrison, K. (2007). *Research Methods in Education*. UK: Routledge. 6th edition
- Coultas, V. (2007). *Constructive Talk in Challenging Classrooms: Strategies for Behaviour Management and Talk-Based Tasks*. UK: Routledge.
- Cozby. (2009). *Methods in Behavioural research*. New York: McGraw-Hill Companies, 2009
- Creswell, J. W. (2012). *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research*. Boston: Pearson Education Ink.
- Cummings, C. (2000). *Winning Strategies for Classroom Management*. USA: Association for Supervision and Curriculum Development.
- Cummins, J. and Davison, C. (2007). *International Handbook of English Language Teaching*. USA: Springer Science+ Business Media LLC.
- Dam, L. & Legenhausen, L. (1996). *The Acquisition of Vocabulary in an Autonomous Learning Environment - the First Months of Beginning English*. In R. Pemberton, et al. (Eds.) *Taking Control: Autonomy in Language Learning* (pp. 265-80). Hong Kong: Hong Kong University Press.

- Dam, L. (1995). *Learner Autonomy 3: from Theory to Classroom Practice*. Dublin: Authentik.
- Dam, L. and Little, D. (1999). *Autonomy in foreign language learning: From classroom practice to generalizable theory*. In A. Barfield, et al. (Eds.), *On JALT98: Focus on the classroom: Interpretations*. JALT conference proceedings. Tokyo.
- Dam, L., Little, D., Katsura, H. and Smith, R. (1999). *Learner autonomy in Japanese classrooms: An exchange of views*. In A. Barfield, et al. (Eds.), *On JALT98: Focus on the classroom: Interpretations*. JALT conference proceedings. Tokyo.
- Dana, F. N., and Yendol-Hoppey, D. (2014). *The Reflective Educator's Guide to Classroom Research: Learning to Teach and Teaching to Learn through Practitioner Inquiry*. USA: Corwin Sage Company.
- Dawson, C. (2009). *Introduction to Research Methods: A Practical Guide for Anyone Undertaking a Research Project*. UK: How To Content.
- Deci, E. L. & Ryan, R. M. (2000). *Handbook of self-determination research: Theoretical and applied issues*. Rochester: University of Rochester Press.
- Dickinson, L. (1987). *Self-Instruction in Language Learning*. UK: Cambridge University Press.
- Distad, L.S. and Brawnstein, J.C. (2004). *Talking Teaching: Implementing Reflective Practice in Groups*. Maryland: Scarecrow Education.
- Djebbari, Z. (2014). *Self-confidence and Pronunciation Training to Enhance the EFL Speaking Competence: A Classroom-Oriented Research on First Year LMD Students at Abu Bekr Belkaid University*. PhD Thesis. Tlemcen University. Algeria.
- Donaldson, P.R. and Haggstorm, A. M. (2006). *Changing Language Education Through CALL*. UK, Taylor and Francis e-library.

- Donnelly, R., and McSweeney, F. (2009). *Applied E-Learning and E-Teaching in Higher Education*. USA: Information Science Reference.
- Dörnyei, Z. (2001). *Motivational Strategies in the Classroom*. UK: Cambridge, University Press.
- Dörnyei, Z. (2003). *Questionnaires in Second Language Research: Construction, Administration and Processing*. New Jersey: Lawrence Erlbaum Associates Ink.
- Dörnyei, Z. (2007). 'Creating a Motivating Classroom Environment'. In Cummins, J. and Davison, C. (eds.), *International Handbook of English Language Teaching* (pp. 719-732). USA: Springer Science+ Business Media LLC.
- Dörnyei, Z. (2007). *Research Methods in Applied Linguistics: Quantitative, Qualitative and Mixed Methodologies*. Oxford: oxford University Press.
- Dörnyei, Z. (2008). *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition*. Routledge: Taylor and Francis Group.
- Dudeney, G. and Hockly, N. (2007). *How to...teach English with technology*. England: Pearson Education Limited.
- Duff, P. A. (2008). *Case Study Research in Applied Linguistics*. London: Taylor and Francis Group.
- Efron, S.E. and Ravid, R. (2013). *Action Research in Education: A Practical Guide*. New York: Guilford Press.
- Eggen,P., and Kauchak, D. (2010). *Educational Psychology: Windows on Classrooms*. New Jersey: Pearson Education, Inc.
- Eisenberg, N. (2006). *Handbook of Child Psychology: Social, Emotional, and Personality Development*. New Jersey: John Wiley and Sons.
- Elliott, J. (1991). *Action Research for Educational Change*. Philadelphia: Open University Press.

- Elliott, J. and Adelman, C. (1976). *Innovation at the Classroom Level: the Ford Teaching Project*. Course CE023. Milton Keynes: Open University Press.
- Ellis, R., and McClintock, A. (1990). *If You Take My Meaning: Theory into Practice in Human Communication*. London: Edward Arnold Press.
- Eloff, I. and Ebersohn, L. (2004). *Keys to Educational Psychology*, Cape Town: UCT.
- Erben, T., Ban, R. and Castaneda, M. (2009). *Teaching English Language learners Through Technology*. UK, Routledge.
- Farrell, T.S.C., and Jacobs, M.J. (2010). *Essentials for Successful English Language Teaching*. London: Continuum International Publishing Group.
- Frei, S., Gammill, A., and Irons, S. (2007). *Integrating Technology into the Curriculum*. USA: Corinne Burton, M.A Ed.
- Gardner, R.C. (1985). *Social Psychology and Second Language Learning: The role of Attitudes and Motivation*. London: Edward Arnold.
- Gass, M. S., and Selinker, L. (2008). *Second Language Acquisition: An Introductory Course*. London: Routledge.
- Ghaye, T. (2011). *Teaching and Learning through Reflective Practice*. UK: Taylor and Francis.
- Gibbs, G. (1988). *Learning by doing: a guide to teaching and learning methods*. Oxford: Further Education Unit, Oxford Polytechnic.
- Given, L. M. (2008). *The Sage Encyclopedia of Qualitative Research Methods*. California: Sage Publishers Ink.
- Goodwyn, A. (1997). *Developing English Teachers: The Role of Mentorship in Reflective Profession*. UK: Open University Press.
- Goodwyn, A. (2000). *English in the Digital Age: Information and Communications Technology (ICT) and the Teaching of English*. London: Cassell Wellington House.

- Gorard, S. and Taylor, C. (2004). *Combining Methods in Educational and Social Research*. England: Open University Press.
- Graham, S. (1997). *Effective Language Learning: Positive Strategies for Advanced Level Language Learning*. UK: Multilingual Matters Ltd.
- Granger, S., Hung, J. and Petch-Tyson, S. (2002). *Computer Learner Corpora, Second Language Acquisition and Foreign Language Teaching*, Philadelphia. John Benjamins Publishing Company.
- Graves, K. (1996). *Teachers as Course Developers*. UK: Cambridge University Press.
- Graves, K. (2000). *Designing Language Courses: A Guide for Teachers*. Boston: Heinlex and Heinlex Publishers.
- Green, A. (2011). *Reflective English Teacher*. England: McGraw-Hill House.
- Grolnick, W. S, Gurland, S. T, Jacob, K. F, and Decourcey, W. (2002). *The development of self-determination in middle childhood and adolescence*. San Diego: Academic Press.
- Haager, D., Klingner, J. and Aceves, T. (2010). *How to Teach English Language Learners Effective Strategies from Outstanding Educators*. United States of America: Jossey-Bass.
- Hall, Graham. (2011). *Exploring English language teaching: language in action*. New York: Routledge.
- Hall, P. and Simeral, A. (2015). *Teach Reflect Learn: Building Your Capacity for Success in the Classroom*. USA: ASCD.
- Hamm, M. and Adams, D. (1992). *The Collaborative Dimensions of Learning*. New Jersey: Ablex Publishing Corporation.
- Hancock, D. R., and Algozzine, B. (2006). *Case Study Research: A Practical Guide for Beginning Researchers*. New York: Teachers College Press.
- Harmer, J. (2001). *The Practice of English Language Teaching*. London: Longman.

- Haycraft, J. (1978). *An Introduction to English Language Teaching*. England: Longman Group Ltd.
- Hayta, F. and Yaprak, Z. (2013). Learner Autonomy and Computer Technology as a Facilitator of Autonomous Language Learning. *Journal of Educational and Instructional Studies in the World* 09, 2013. V (3), 57-63.
- Heift, T. and Schulze, M. (2007). *Errors and Intelligence in Computer Assisted Language Learning*. London: Taylor and Francis Group.
- Henry, C. and Kemmis, S. (1985). A point-by-point guide to action research for teachers. *The Australian Administrator* 6(4):1-4. School of Education, Deakin University.
- Hillier, Y. (2005). *Reflective Teaching in Further and Adult Education*. London: Continuum.
- Hinkle, E. (2005). *Handbook of Research in Second Language Teaching and Learning*. New Jersey: Lawrence Erlbaum Associates, Inc.
- Holec, H. (1981). *Autonomy and Foreign Language Learning*. Oxford: Pergamon.
- Holec, H. (1981). *Autonomy in Foreign Language Learning* (first published 1979, Strasbourg: Council of Europe). Oxford: Pergamon.
- Holland, V. M. and Fisher, F. P. (2008). *The Path of Speech Technologies in Computer Assisted Language Learning: From Research toward Practice*. Routledge: Taylor and Francis Group.
- Howell, D. C. (2013). *Statistical Methods for Psychology*. USA: Linda Schreiber-Ganster.
- Hsu, W. C. (2005). *Representations, Constructs and Practice of Autonomy via a Learner Training Programme in Taiwan*. PhD Thesis. University of Nottingham. U.K.
- Hunston, S., and Oackey, D. (2010). *Introducing Applied Linguistics: Concepts and Skills*. London: Routledge.

- Hurd, S. and Lewis, T. (2008). *Language Learning Strategies in Independent Settings*. UK: Multilingual Matters.
- Hutchinson, T. and Waters, A. (1987). *English for Specific Purposes*. Cambridge: CUP
- Jackson, G. R. (2010). *Psychology of Neuroticism and Shame: Psychology of Emotions, Motivations and Actions*. New York: Nova Science Publishers.
- Jay, J. K. (2003). *Quality Teaching: Reflection as the Heart of Practice*. Lanham, MD: Scarecrow Press.
- Johnson, K. and Johnson, H. (1999). *Encyclopedia Dictionary of Applied Linguistics*. UK: Blackwell Publishing Ltd.
- Jonker, J. and Pennink, B. (2010). *The Essence of Research Methodology: A Concise Guide for Master and PhD students in Management Science*. London: Springer Heidelberg Dordrecht.
- Jordan, R. (1997). *English for Academic Purposes: a Guide and Resource Book for Teachers*. Cambridge: Cambridge University Press.
- Kapalka, G. (2009). *Guides for Teachers of Challenging Students: 8 Steps to Classroom Management Success*. California: Crowin.
- Kareva, V. (2015). *Learner Autonomy from Theory to Practice*. In B. Xhaferri, M. Waldispul, B.E. Hotz, and G. Xhaferri (Eds.), *Promoting Learner Autonomy in Higher Education* (pp. 237-248). Tetovo: South East European University.
- Kemmis, S., and McTaggart, R. (1988). *The Action Research Reader*. Geelong: Deakin University Press.
- Kenning, M. (2007). *ICT and Language Learning From Print to the Mobile Phone*. New York: Palgrave Macmillan.
- Kidd, W., and Czerniawski. (2010). *Successful Teaching: Theory, Practice and Reflection*. London: Sage Publication Ltd.
- Kincheloe, J. (1991). *Teachers as Researchers: Qualitative Inquiry as a Path to Empowerment*. New York: Falmer.

- Knapp, K., and Seidlhofer, B. (2009). *Handbook of Foreign Language Communication and Learning*. New York: Mouton de Gruyter.
- Kohonen, V. (1992). *Experiential Language Learning: Second Language Learning as Cooperative Learning*. In D. Nunan (Ed.), *Collaborative Language Learning and Teaching* (pp.14-39). Cambridge: Cambridge University Press.
- Koshy, V. (2005). *Action Research for Improving Practice: A Practical Guide*. London: Paul Chapman Publishing.
- Kothari, C.R. (2004). *Research Methodology: Methods and Techniques*. New York: New Age International Ltd Publishers.
- Kyriacou, C. (2007). *Essential Teaching Skills*. UK: Nelson Thornes Ltd.
- Larson, J. E. (2009). *Educational Psychology: Cognition and Learning, Individual Differences and Motivation*. New York: Nova Science Publishers Ink.
- Law, N., Yuen, A. and Fox, R. (2011). *Educational Innovations beyond Technology: Nurturing Leadership and Establishing Learning Organizations*. New York: Springer.
- Lee G.V., Barnett, B.G. (1994). Using Reflective Questioning to Promote Collaborative Dialogue. *Journal of Staff Development*, Vol. 15, No. 1, 16-21.
- Legenhausen, L. (2009). *Autonomous Language Learning*. In K. Knapp, and B. Seidlhofer (Eds.), *Handbook of Foreign Language Communication and Learning* (373-400). New York: Mouton de Gruyter.
- Levy, M., Blin, F., Siskin, C.B., and Takeuchi, O. (2011). *World CALL: International Perspectives on Computer Assisted Language Learning*. London: Taylor and Francis.
- Lewis, G. (2003). *Bringing Technology into the Classroom*. England: Oxford University Press.
- Lewis, R. (2009). *Understanding Pupil Behaviour: Classroom Management Techniques for Teachers*. UK: Routledge.

- Lieberman, A., and Wood, D. R. (2002). The National Writing Project. *Educational Leadership*, 59(6), 40–43.
- Little, D. & Devitt, S. (1991). *Authentic: The user's guide*. Dublin: Authentik.
- Little, D. (1988). Autonomy and self-directed learning: An Irish experiment. In H. Holec (Ed.), *Autonomy and self-directed learning: Present fields of application* (pp. 77-84). Strasbourg: Council of Europe.
- Little, D. (1990). Autonomy in language learning. In I. Gathercole (Ed.), *Autonomy in language learning* (pp. 7-15). London: CILT.
- Little, D. (1991). *Learner autonomy: Definitions, issues and problems*. Dublin: Authentik.
- Little, D. (1994). Learner autonomy: A theoretical construct and its practical application. *Die Neuere Sprache*, 93(5), 430-442.
- Little, D. (1995). Learning as dialogue: The dependence of learner autonomy on teacher autonomy. *System*, 23(2), 175-182.
- Little, D. (1996a). Freedom to learn and compulsion to interact: Promoting learner autonomy through the use of information systems and information technologies. In R. Pemberton, et al. (Eds.), *Taking control: Autonomy in language learning* (pp. 203-218). Hong Kong: Hong Kong University Press.
- Little, D. (1996b). Learner autonomy: Some steps in the evolution of theory and practice. *Teanga 16* (pp. 1–13). (The Irish Yearbook of Applied Linguistics) Dublin, Irish Association for Applied Linguistics.
- Little, D. (1996c). Strategic competence considered in relation to strategic control of the language learning process. In H. Holec, D. Little and René Richterich (Eds.), *Strategies in language learning and use. Studies towards a Common European Framework of reference for language learning and teaching* (pp. 9–37), Strasbourg, Council of Europe.
- Little, D. (1996d). The politics of learner autonomy. *Learning*, 2(4), 7-10.
- Little, D. (1997). Language awareness and the autonomous language learner. *Language Awareness*, 6(2/3), 93-104.

- Little, D. (1999a). Autonomy in second language learning: some theoretical perspectives and their practical implications. In C. Edelhoff and R. Weskamp (Eds.), *Autonomes Fremdsprachenlernen* (pp. 22-36). Ismaning: Hueber.
- Little, D. (1999b). Learner autonomy is more than a Western cultural construct. In S. Cotterall & D. Crabbe (Eds.), *Learner autonomy in language learning: Defining the field and effecting change* (pp. 11-18). Bayreuth Contributions to Glottodidactics, Vol 8. Frankfurt am Main: Lang.
- Little, D. (2000a). Autonomy and autonomous learners. In M. Byram (Ed.), *Routledge encyclopedia of language teaching and learning* (pp. 69-72). London: Routledge.
- Little, D. (2000b). Learner autonomy and human interdependence: Some theoretical and practical consequences of a social-interactive view of cognition, learning and language. In B. Sinclair, et al. (Eds.), *Learner autonomy, teacher autonomy: Future directions* (pp. 15-23). London: Longman.
- Little, D. (2000d). Strategies, counselling and cultural difference: Why we need an anthropological understanding of learner autonomy. In R. Ribé (Ed.), *Developing learner autonomy in foreign language learning* (pp. 17-33). Barcelona: University of Barcelona.
- Little, D. (2000e). Why focus on learning rather than teaching? In D. Little, et al. (Eds.), *Focus on learning rather than teaching: Why and how?* (pp. 3-17). Dublin: Trinity College, Centre for Language and Communication Studies.
- Little, D. (2001a). How independent can independent language learning really be? In J. A. Coleman, D. Ferney, D. Head & R. Rix (Eds.), *Language learning futures: Issues and strategies for modern languages provision in higher education* (pp. 30-43). London: Centre for Information on Language Teaching.

- Little, D. (2002a). Learner autonomy and autonomous language learning: Some theoretical perspectives and their practical implications. In P. Evangelisti & C. Argondizzo (Eds.), *L'apprendimento autonomo delle lingue straniere. Filosofia e attuazione nell'università italiana* (pp. 17-29). Soveria Mannelli (Catanzaro): Rubbettino.
- Little, D. and Grant, A. J. (1986). *Learning German without a teacher. Report on a self-instructional programme for undergraduate students of Engineering Science at Trinity College Dublin. CLCS Occasional Paper No.14* Dublin: Trinity College.
- Little, D., Dam, L. and Timmer, J. (2000). *focus on learning rather than teaching: Why and how?* Dublin: Trinity College, Centre for Language and Communication Studies.
- Little, D., Ridley, J. & Ushioda, E. (2003). *Learner autonomy in foreign language classrooms: Teacher, learner, curriculum and assessment.* Dublin: Authentik.
- Little, D., Ridley, J. and Ushioda, E. (2002). *Towards Greater Learner Autonomy in the Foreign Language Classroom.* Dublin: Authentik.
- Lodico, M. G., Spauling, D. T. and Voegtle, K. H. (2006). *Methods in Educational Research: From Theory to Practice.* USA: John Wiley and Sons Ink.
- Long, M. H. and Doughty, C. J. (2009). *The Handbook of Language Teaching.* UK: Blackwell Publishing Ltd.
- Loughram, J. (2008). *Researching Teaching: Methodologies and Practices for Understanding Pedagogy.* London: Taylor and Francis Group.
- Loughran, J. (1996). *Developing Reflective Practice: Learning about Teaching and Learning through Modeling.* USA: Taylor and Francis Ink.
- Lytras, D. M., Ordoner D.P., Patricia, A., David, S., Janice, J., Qun, L., Walter, U., Lorna, T. M., Cervai, S. and Horner, D. (2010), *Technology Enhanced Learning: Quality of Teaching and Educational Reform.* Germany: Springer-Verlag Berlin Heidelberg.

- Mackey, A. & Gass, S. M. (2005). *Second Language research: Methodology and Design*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Mackey, A. & Gass, S. M. (2011). *A Guide to Research Methods in Second Language Acquisition*. London: Basil Blackwell.
- Mackey, A. and Gass, M. S. (2005). *Second Language Research: Methodology and Design*. New Jersey: Lawrence Erlbaum.
- Mann, S. J. (2001). *Alternative perspectives on the student experience: Alienation and engagement*. *Studies in Higher Education*.
- Marczyk, G., DeMatteo, D. and Festinger, D. (2005). *Essentials of Research Design and Methodology*. New Jersey: John Wiley and Sons Ink.
- Marlina, R., Giri, R.A. (2014). *The Pedagogy of English as an International Language*. Switzerland: Springer International Publishing.
- Marriott, R. C. and Torres, P. L. (2009). *Handbook of Research on E-learning Methodologies for Language Acquisition*. New York: Information Science Reference.
- Marzano, R. J., Gaddy, B. B., Foseid, M. P. and Marzano, J. S. (2005). *A Handbook for Classroom Management that Works*. USA: Association for Supervision and Curriculum Development.
- Maslow, H. A. (1954). *Motivation and Personality*. New York: Harper Collins Publishers.
- May, T. (2002). *Qualitative Research in Action*. London: Sage Publications.
- McDonough, J. and McDonough, S. (2006). *Research Methods for English Language Teachers*. Great Britain: Hodder Arnold.
- McEntee, G.H., Appleby, J., Dowd, J., Grant, J., Hole, S., Silva, P. and Check, J.W. (2003). *At the Heart of Teaching: A Guide to Reflective Practice*. New York: Teachers College Press.
- McIntosh, P. (2010). *Action Research and Reflective Practice*. USA: Routledge.

- McNiff, J., and Whitehead, J. (2006). *All You Need to Know about Action Research: An Introduction*. London: Sage Publications.
- Miliani, M., (2000). *Teaching English in a Multilingual Context: The Algerian Case*. In *Mediterranean Journal of Educational Studies*, Vol. 6 (1), pp. 13-29.
- Miliani, M., (2003). *Foreign Language Teaching Approaches, Methods and Techniques*. Oran: Dar El Gharb.
- Miliani, M., (2010). *Between Enduring Hardships and Fleeting Ideals*. *Mediterranean Journal of Educational Studies*, Vol. 15(2), pp. 65-76, 2010.
- Milles, M. B. and Huberman, A. M. (1994). *Qualitative Data Analysis*. London: Sage Publications Ltd.
- Mitchell, R. and Myles, F. (2004). *Second Language Learning Theories*. Great Britain: Hodder Arnold.
- Monteith, M. (2005). *Teaching Secondary School Literacies with ICT*. England: Open University Press.
- Moore, A. (2003). *Teaching and Learning: Pedagogy, Curriculum and Culture*. London: Taylor and Francis Group.
- Moreno, R. (2010). *Educational Psychology*. United States of America: John Wiley and Sons.
- Morgan, N. S. (2009). *Quick, Easy and Effective Behaviour Management: Ideas for the Classroom*. UK: Jessica Kingsley Publishers.
- Munby, J. (1978). *Communicative Syllabus Design*. Cambridge: Cambridge University Press.
- Murray, D. E. (2007). 'Creating a Technology-Rich English Language Learning Environment'. In Cummins, J. and Davison, C. (eds.), *International Handbook of English Language Teaching* (pp. 747-762). USA: Springer Science+ Business Media LLC.
- Murray, D. E., and Christison, M. A. (2010). *What English Language Teachers Need to Know: Understanding Learning*. UK: Taylor and Francis Group.

- Murray, G., Gao, X. and Lamb, T. (2011). Identity, Motivation and Autonomy in Language Learning. UK: British Library Cataloguing in Publication Data.
- Mynard, J. & Sorflaten, R. (2003b). Learner Independence in your classroom. *Teachers, Learners and Curriculum*, 1:34-38.
- Mynard, J. (2003). Synchronous computer-mediated communication and learner autonomy in female Emirati learners of English. Ed.D. dissertation, University of Exeter.
- Mynard, J., and Sorflaten, R. (2003a). Facilitating Learning through Peer Tutoring. In Syed, Z., Coombe, C. and Troudi, S. (Eds). *TESOL Arabia 2002 conference proceedings Volume VIII. Critical reflection and practice*, (pp. 287-302).
- Nation, I. S. P. & Newton J. (2009). *Teaching ESL/EFL listening and speaking*. New York, NY: Routledge.
- Neto, F.M.M. and Brasileiro, F.V. (2007). *Advances in Computer-Supported Learning*. UK: Information Science Publishing.
- Nga, N.T. (2014). *Learner Autonomy in Language Learning: Teachers' Beliefs*. PhD Thesis. Queensland University of Technology.
- Nunan, D. (1992). *Collaborative Language Learning and Teaching*. Cambridge: Cambridge University Press.
- Nunan, D. (2001). *Research Methods in Language Learning*. Cambridge: Cambridge.
- Nunan, D. (2003). *Practical English Language Teaching*. New York: McGraw-Hill Companies.
- Nunan, D. (2003). *Practical English Language Teaching*. New York: McGraw-Hill.
- Nunan, D. (2008). Classroom Research. In *Handbook of research in second language teaching and learning*. E. Hinkel (ed.) 137-153. New York: Routledge.

- Osborn, T.A. (2000). *Critical Reflection and the Foreign Language Classroom*. London: Bergin and Garvey.
- Partin, R. L. (2009). *The Classroom Teacher's Survival Guide: Practical Strategies, Management Techniques, and Reproducibles for New and Experienced Teachers*. San Francisco: Jossey-Bass.
- Patten, B. V. and Banati, A. (2009). *Key Terms in Second Language Acquisition*. London: Continuum International Publishing Group.
- Paul, A. and Boud, D., Coate, K., Hallette, F., Keane, E., Krause, K., Leibowitz, B., MacLaren, L., McArthur, J., McCune, V., Tooher, M. (2015). *Reflective Teaching in Higher Education*. UK: Bloomsbury Publishing Plc.
- Pawlak, M. (2012). *New Perspectives on Individual Differences in Language Learning and Teaching*. Berlin: Springer.
- Phillips, D. K. and Carr, K. (2010). *Becoming a Teacher through Action Research*. UK: Routledge.
- Ping Chuk, J.Y. (2003). *Promoting Learner Autonomy in the EFL Classroom: the Exploratory Practice Way*. *Proceedings of the Independent Learning Conference 2014*, 1-17.
- Pollard, A. (1997). *Reflective Teaching in the Primary School*. London: Cassell.
- Preiss, D. D. and Sternberg, J. R. (2010). *Innovations in Educational Psychology: Perspectives on Learning, Teaching, and Human Development*. New York: Springer Publishing Company.
- Pritchard, A. (2007). *Effective Teaching with Internet Technologies: Pedagogy and Practice*. London: Paul Chapman Publishing.
- Pritchard, A. and Woollard, J. (2010). *Psychology for the Classroom: Constructivism and Social Learning*. England: Routledge.
- Rank, T., Warren, C., and Millum, T. (2011). *Teaching English Using ICT*. London: Continuum International Publishing Group.
- Raya, M.J., and Vieira, F. (2015). *Enhancing Autonomy in Language Education: A Case-based Approach to Teacher and Learner Development*. Boston: Walter de Gruyter, Inc.

- Reichert, S. and Tauch, C. (2005). Trends IV: European Universities Implementing Bologna. Belgium: European University Association ASBL.
- Reid, G. (2007). Motivating Learners in the Classroom: Ideas and Strategies. London: Paul Chapman Publishing.
- Reynolds, M. W. and Miller, E. G. (2003). Handbook of Psychology – Educational Psychology-. New Jersey: John Wiley and Sons.
- Rice, W.H. (2006). Moodle: E-learning Course Development. Birmingham: Packt Publishing.
- Richards, G. (2008). Psychology: The Key Concepts. Routledge: Taylor and Francis Group.
- Richards, J. C. and Rogers, T. S. (2003). Approaches and Methods in Language Teaching. Cambridge: Cambridge University Press.
- Richards, J.C. (2001). Curriculum Development in Language Teaching. UK: Cambridge University Press.
- Richards, J.C. and Lockhart, C. (1996). Reflective Teaching in Second Language Classrooms. Cambridge: Cambridge University Press.
- Richterich, R. and Chancerel, J. (1977). Identifying the needs of adults learning a foreign language. Oxford: Pergamon Press.
- Rivers, W.P., and Golonka, E.M. (2009). Third Language Acquisition Theory and Practice: A Review and Case Study. In M. Long and C. Doughty (Eds.), The Handbook of Language Teaching (pp. 250-266). UK: Blackwell Publishing Ltd.
- Ronau, N. R., Rakes, R. C. and Niess, L. M. (2012). Educational Technology, Teacher Knowledge, and Classroom impact: A Research Handbook on Frameworks and Approaches. USA: Information Science Reference.
- Ross, H. B. (2003). The Psychology of Learning and Motivation: Advances in Theory and Research. USA: Elsevier Science.
- Rushton, I., and Sutter, M. (2012). Reflective Practice for Teaching in Lifelong learning. USA: McGraw Hill.

- Russell, T., and Munby, H. (2005). *Teachers and Teaching from Classroom to Reflection*. London: The Falmer Press.
- Salkind, N. (2009). *Encyclopedia of Educational Psychology*. California: Sage Publications Ink.
- Sansone, C. and Harackiewicz. (2000). *Intrinsic and Extrinsic Motivation: The Search for Optimal Motivation and Performance*. USA: Academic Press.
- Scharle, Á. & Szabó, A. (2000). *Learner autonomy: A guide to developing learner responsibility*. Cambridge: Cambridge University Press.
- Schmidt, R. W. (1995). *Attention and Awareness in Foreign Language Learning*. Honolulu: Second language teaching and curriculum center, University of Hawai'i.
- Schunk, H. D. (2012). *Learning Theories: An Educational Perspective*. England: Pearson Educational Ink.
- Schwienhorst, K. (2008). *Learner Autonomy and CALL Environments*. New York: Routledge.
- Scott, D. and Usher, R. (2011). *Researching Education: Data Methods and Theory in Educational Inquiry*. London: Continuum International Publishing Group.
- Seifert, K. and Sutton, R. (2009). *Educational Psychology*. Switzerland: Jacobs Foundation.
- Sherman, R. R. and Webb, R. B. (2005). *Qualitative Research in Education: Focus and Methods*. UK: Taylor and Francis.
- Sherwood, P. (2008). *Emotional Literacy: The Heart of Classroom Management*. Australia: Acer Press.
- Shindler, J. (2010). *Transformative Classroom Management: Positive Strategies to Engage All Students and Promote a Psychology of Success*. USA: Jossey-Bass.
- Shucart, S.A., Mishina, T., Takahashi, M. and Enokizono, T. (2008). *The CALL Lab as a Facilitator for Autonomous Learning*. In F. Zhang (Ed),

Handbook of Research on Computer Enhanced Language Acquisition and Learning (pp. 483-496). New York: Information Science Reference.

- Sinclair, B. (2000). Learner Autonomy: the Next Phase. In B. Sinclair, et al. (Eds.) *Learner Autonomy, Teacher Autonomy: Future Directions* (pp. 15-23). London: Longman.
- Smidt, H., and Sursock, A. (2011). *Engaging in Lifelong Learning: Shaping Inclusive and Responsive University Strategies*. Belgium: European University Association.
- Smith, C. J. and Laslett, R. (1993). *Effective Classroom Management: A Teacher's Guide*. London: Routledge.
- Smith, P. K. and Pellegrini, A. D. (2004). *Psychology of Education: Major Themes*. Routledge: Taylor and Francis Group.
- Smith, RC. (2000). *Starting with Ourselves: Teacher-Learner Autonomy in Language Learning*. In B. Sinclair, I. McGrath and T. Lamb (Eds.), *Learner Autonomy, Teacher Autonomy*. Essex: Pearson Education Ltd.
- Sternberg, R. J. and Spear-Swerling, L. (1996). *Teaching for Thinking*. Washington: American Psychological Association.
- Sternberg, R.J. and Williams, W.M. (2009). *Educational psychology*. Boston: Allyn and Bacon.
- Stevens, V. (1992). Humanism and CALL: a coming of age. *Computers in Applied Linguistics: an International Perspective*. In Pennington, M. and Stevens, V. Clevedon, Avon: Multilingual Matters: 11–38.
- Strong-Wilson, T. (2006). Bringing Memory Forward: a Method for Engaging Teachers in reflective practice on Narrative and Memory. *Reflective Practice*, 7 (1), 101–113.
- Tanner, R., and Green, C. (1998). *Tasks for Teacher Education: A Reflective Approach*. England: Pearson Education Limited.
- Tayie, S. (2005). *Research Methods and Writing Research Proposals*. Cairo: Center for Advancement of Post Graduate Studies and Research.

- Thomas, M. (2009). *Handbook of Research on Web 2.0 and Second Language Learning*. United States of America: Information Science Reference.
- Tomlinson, B. (2008). *English Language Learning Materials: A Critical Review*. New York: Continuum International Publishing Group.
- Trinh, L. Q. (2005). *Stimulating Learner Autonomy in English Language Education: A Curriculum Innovation Study in a Vietnamese Context*. PhD Thesis. University of Amsterdam. The Netherlands.
- Ur, P. (1991). *A Course in Language Teaching: Practice and Theory*. UK: Cambridge University Press.
- Van P., Bill, L. and James F. (1990). *Second Language Acquisition-Foreign Language Learning*. USA: Multilingual Matters Ltd.
- Wang, P. (2011). Constructivism and Learner Autonomy in Foreign Language Teaching and Learning: To What Extent Does Theory Inform Practice? *Theory and Practice in Language Studies*, 1 (3), (pp. 273-277).
- Warschauer, M. (2007). 'Technology and Writing'. In Cummins, J. and Davison, C. (eds.), *International Handbook of English Language Teaching* (pp. 907-918). USA: Springer Science+ Business Media LLC.
- Wenden, A. (1986). Helping Language Learners think about Learning. *ELT Journal* 40(1), 3-12.
- Wenden, A. (1991). *Learner Strategies for Learner Autonomy: Planning and Implementing Learner Training for Language Learners*. New York: Prentice Hall.
- Wenden, A. (1999). An Introduction to Metacognitive Knowledge and Beliefs in language learning: beyond the basics. *System*, 27, 435-441.
- Wenden, A. L. (1987). Incorporating learner training in the classroom.
- Wenden, A. L. (1998). Metacognitive knowledge and language learning. *Applied Linguistics*, 19, 515-37.

- West, K. (2010). *Inspired English Teaching: A Practical Guide for Teachers*. London: Continuum International Publishing Group.
- Whyte, S. (2015). *Implementing and Researching Technological Innovation in Language Teaching*. Hampshire: Palgrave Macmillan.
- Wilhelm, J.D. (1997). *Teaching Engaged and Reflective Reading with Adolescents*. New York: Teachers College Press.
- Woodside, G. A. (2010). *Case Study Research: Theory. Methods. Practice*. UK: Emerald Group Publishing.
- Woollard, J. (2010). *Psychology for the Classroom: Behaviourism*. Routledge: Taylor and Francis Group.
- Wright, T. (1987). *Roles for Teachers and Learners*. Oxford: Oxford University Press.
- Yaiche, W. (2013). *Assessing the Effects of Computer Assisted Language Learning (CALL) on EFL LMD2 Students' Motivation*: University of Tlemcen. Magister Thesis. Tlemcen University. Algeria.
- Yalden, J. (1987). *Principles of Course Design for Language Teaching*. UK: Cambridge University Press.
- Yamamoto, J., Kush, J., Lambard, R., and Hertzog, J. (2010). *Technology Implementation and Teacher Education: Reflective Models*. New York: Information Science Reference.
- Yang, H.H. and Yuen, C. (2010). *Handbook of Research on Practices and Outcomes in E-Learning: Issues and Trends*. New York: Information Science Reference.
- Zamel, V., and Spack, R. (2002). *Enriching ESOL Pedagogy*. London: Lawrence Erlbaum Associates.
- Zaphiris, P. and Zacharia, G. (2006). *User-Centered Computer Aided Language Learning*. United States of America: Information Science Reference.
- Zeichner, K.M. and Liston, D.P. (1996). *Reflective Teaching: An Introduction*. New Jersey: Lawrence Erlbaum Associates, Publishers.

- Zhang, F. (2012). *Computer Enhanced and Mobile-Assisted Language Learning: Emerging Issues and Trends*. United States of America: Information Science Reference.
- Zhang, F. and Berber, B. (2008). *Handbook of Research on Computer-Enhanced Language Acquisition and Learning*. United States of America: Information Science Reference.
- Zhao, Y. (2003). Recent Developments in Technology and Language Learning: A Literature Review and Meta-analysis. *CALICO Journal*, 21 (1), 7-27.

Webliography

- Blin, F. (2004). CALL and the Development of Learner Autonomy: Towards an Activity-Theoretical Perspective. *ReCALL V (16)*, 377-395. Retrieved from: http://journals.cambridge.org/abstract_S0958344004000928
- Christodoulou, Niki. (2013). The Impact of Guided Reflective Practice on the Teaching of English as a Foreign Language in Higher Education in Cyprus. EdD thesis. University of Nottingham. Retrieved from: <http://eprints.nottingham.ac.uk/13635/1/ThesisNikiChristodoulou.pdf>
- Cotterall, S. (1995). Developing a course strategy for learner autonomy. *ELT Journal*, 49 (3), 219-227. <http://dx.doi.org/10.1093/elt/49.3.219>.
- Cotterall, S. (2000). Promoting Learner Autonomy through the Curriculum: Principles for Designing Language Courses. *ELT Journal*, 54 (2), 109-117. <http://dx.doi.org/10.1093/elt/54.2.109>
- Davison, G. (2011). Investigating the Relationship between Authentic Assessment and the Development of Learner Autonomy. Doctoral thesis, University of Northumbria at Newcastle. Retrieved from: <http://nrl.northumbria.ac.uk/2354/>
- European Commission/EACEA/Eurydice, 2015. The European Higher Education Area in 2015: Bologna Process Implementation Report. Luxembourg: Publications Office of the European Union. <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=2ahUKEwjDhdb2v7HgAhXSA2MBHZNlD5oQFjABegQIDRAB&url=https%3A%2F%2Fpublications.europa.eu%2Fen%2Fpublication-detail%2F-%2Fpublication%2F91f926b2-6965-4abe-a1be-600903e4df93&usq=AOvVawoZ7GCxN39LZWC1csjvWW9j>.
- European University Association (2004). What is the Bologna Process? Retrieved from: <http://www.eua.be/eua-work-and-policy-area/building-the-european-highereducation-area/bologna-basics.aspx>
- Grob, A., and Wolff, D. (2001). A Multimedia Tool to Develop Learner Autonomy. *CALL 2014*, 233-249. Retrieved from: <http://www.tandfonline.com/loi/ncal20>

- Le, Quynh X. (2013). Fostering Learner Autonomy in Language Learning in Tertiary Education: An Intervention Study of University Students in Hochiminh City, Vietnam. PhD thesis. University of Nottingham. Retrieved from: http://eprints.nottingham.ac.uk/13405/2/Draft_of_Thesis_Quynh_Xuan_Le_%28June_-_final%292.pdf
- Little, D. (2005). The European Language Portfolio: where pedagogy and testing meet. ALTE–The Association of Language Testers in Europe. Retrieved from http://www.alte.org/further_info/cardiff/dl_1105.pdf
- Megnounif, A. (2009). The "LMD" System and the Algerian University: Five Years After. The Case of the Faculty of Engineering, Tlemcen. Retrieved from: http://fsi.univtlemcen.dz/MEGNOUNIF_LMD_UABBT_FSI_Nov2009_englishs.pdf
- Oxford, R. (2003). Language Learning Styles and Strategies. An Overview. GALA 2003. Retrieved on 1.10,2013 from: <http://hyxy.nankai.edu.cn/jingpinke/buchongyuedu/learning%20strategies%20by%20Oxford.pdf>
- Schwienhorst, K. (2010). Learner Autonomy and Tandem Learning: Putting Principles into Practice in Synchronous and Asynchronous Telecommunication Environment. CALL 2010, 427-443. Retrieved from: <http://www.tandfonline.com/loi/ncal20>
- Smith, Richard. (2008). Learner Autonomy. ELT Journal V (62), 395–397. Retrieved from <http://eltj.oxfordjournals.org/content/62/4/395.full>
- Warschauer, M., & Healey, D. (1998). Computers and language learning: an overview. Language Teaching 31(2), 57–71. Retrieved from: <http://www.gse.uci.edu/markw/overview.html>

APPENDICES

Appendix 1

Learner Autonomy Questionnaire

The present questionnaire is designed as part of a research work to explore and measure the level of EFL students' autonomy while learning in CALL (Computer Assisted Language Learning) laboratory. Therefore, you are kindly requested to read carefully each statement answer and respond by putting a tick (✓) or a cross (×) on the appropriate answer.

N.B. There is no correct or incorrect answer. Your answers will be used for research aims.

Thanks for your collaboration

Age:

Sex: Male

Female

<i>Part one: Learners' Performance</i>					
<i>Statement</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
1. I can use the computer on my own.					
2. I learn English better in CALL laboratory.					
3. I enjoy learning English in CALL laboratory.					
4. Learning in the laboratory sustain my interests.					
5. I am often engaged in CALL activities.					
6. I feel that I am effective in CALL laboratory.					
7. I like trying new things in CALL laboratory.					

Appendix 1

8. CALL assignments increases my willingness to continue learning.					
9. I learn better when working with colleagues.					
10. I often help my colleagues to overcome obstacles.					
11. CALL atmosphere is energizing.					
12. CALL assignments develop my reflective thinking.					
<i>Part two: Self-Direction Test</i>					
13. I usually set my own goals for each session.					
14. I like activities in which I can learn on my own.					
15. I use other CALL resources on my own.					
16. I check new words by looking them up in e-dictionaries.					
17. I would like to select the materials for my CALL lessons.					
18. I use my own way to do CALL assignments.					
19. I would like to participate in the decisions of what to do in the lesson.					
20. The teacher should give me regular tests.					
21. I know my weakness and go for it.					

Appendix 1

22.If I cannot understand during the session, I can learn working myself.					
23.If I have missed a session, I am responsible for it.					
24.I have my own way of assessing my performance.					
<i>Part three: Importance of Class Teacher</i>					
25. I feel embarrassed when I experience a new activity.					
26. I cannot do an activity if the teacher does not explain it several times.					
27.I learn better, when the teacher explains several times.					
28. I feel confident when the teacher is beside me while doing assignments.					
29. I can learn only with the help of my teacher.					
30. My teacher has always to guide me.					
31. I learn better only when the teacher gives me feedback.					
32. I seek for my teacher's help only in private and not in front of my classmates.					
33. I like the assignments where I can work with others.					

Appendix 1

34. I hesitate to take decisions alone.					
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Reflective journal		
Questions Addressed	Teacher's Responses	Aim
What are the problems in my class?	<ul style="list-style-type: none"> • • • 	Check and notice classroom problems.
What are my reactions to the noticed problems?	<ul style="list-style-type: none"> • • • 	Look back on/forward to a defined problem for the sake of reflection
What are my interpretations to the events?	<ul style="list-style-type: none"> • • • 	Evaluate the teacher's practices in perplexing situations.
What understandings can be accumulated from the events?	<ul style="list-style-type: none"> • • • 	Develop an understanding about teaching.

APPENDIX 2

Checklist Number 1

General Information

1. Observer: Yaiche Wahida
2. Setting: 10:00 am; 06.11.2016; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 1st
4. Observed things: autonomy related factors/opportunities.
5. Lesson start: 10:00 am
6. Lesson end: 11:28

	Very seldom	Occasionally	Quite often	Very often
1. <i>Offering choices.</i>	✓			
2. <i>Giving encouragements.</i>			✓	
3. <i>Providing hints.</i>		✓		
4. <i>Offering rationales.</i>	✓			
5. <i>Encouraging learners to set their own learning goal.</i>	✓			
6. <i>Generating a self-access facility in the classroom</i>	✓			
7. <i>Encouraging learners to develop critical thinking skills</i>		✓		
8. <i>Encouraging learners to create extension into learning experiences.</i>		✓		
9. <i>Encouraging learners to predict how well they are progressing.</i>	✓			
10. <i>Instigating self-assessment</i>	✓			
11. <i>Encouraging cooperative work.</i>		✓		
12. <i>Fostering peer assessment</i>	✓			
13. <i>Students' listening</i>			✓	
14. <i>Students' talk</i>		✓		
15. <i>Being responsive to students questions</i>				✓

APPENDIX 2

16. *Encouraging learners to use CALL materials outside the classroom.*

	✓		
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Checklist Number 2

General Information

1. Observer: Yaiche Wahida
2. Setting: 11:30 am; 08.11.2016; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 2nd
4. Objective: Autonomy related factors and opportunities.
5. Lesson start: 11:30 am
6. Lesson end: 13:02

	Very seldom	Occasionally	Quite often	Very often
1. <i>Offering choices.</i>	✓			
2. <i>Giving encouragements.</i>		✓		
3. <i>Providing hints.</i>		✓		
4. <i>Offering rationales.</i>		✓		
5. <i>Encouraging learners to set their own learning goal.</i>	✓			
6. <i>Generating a self-access facility in the classroom</i>	✓			
7. <i>Encouraging learners to develop critical thinking skills</i>	✓			
8. <i>Encouraging learners to create extension into learning experiences.</i>	✓			
9. <i>Encouraging learners to predict how well they are progressing.</i>	✓			
10. <i>Instigating self-assessment</i>	✓			
11. <i>Encouraging cooperative work.</i>		✓		
12. <i>Fostering peer assessment</i>	✓			

APPENDIX 2

13. <i>Students' listening</i>			✓	
14. <i>Students' talk</i>		✓		
15. <i>Being responsive to students questions</i>				✓
16. <i>Encouraging learners to use CALL materials outside the classroom.</i>	✓			

Checklist Number 3

General Information

1. Observer: Yaiche Wahida
2. Setting: 10:00 am; 13.11.2016; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 3rd
4. Objective: Autonomy related factors and opportunities.
5. Lesson start: 10:01 am
6. Lesson end: 11:30

	Very seldom	Occasionally	Quite often	Very often
1. <i>Offering choices.</i>	✓			
2. <i>Giving encouragements.</i>			✓	
3. <i>Providing hints.</i>		✓		
4. <i>Offering rationales.</i>		✓		
5. <i>Encouraging learners to set their own learning goal.</i>	✓			
6. <i>Generating a self-access facility in the classroom</i>		✓		
7. <i>Encouraging learners to develop critical thinking skills</i>	✓			
8. <i>Encouraging learners to create extension into learning experiences.</i>	✓			
9. <i>Encouraging learners to predict how well they are progressing.</i>	✓			

APPENDIX 2

10. <i>Instigating self-assessment</i>	✓			
11. <i>Encouraging cooperative work.</i>		✓		
12. <i>Fostering peer assessment</i>	✓			
13. <i>Students' listening</i>			✓	
14. <i>Students' talk</i>		✓		
15. <i>Being responsive to students questions</i>				✓
16. <i>Encouraging learners to use CALL materials outside the classroom.</i>	✓			

Checklist Number 4

General Information

1. Observer: Yaiche Wahida
2. Setting: 11:30 am; 15.11.2016; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 4th
4. Objective: Autonomy related factors and opportunities.
5. Lesson start: 11:35 am
6. Lesson end: 13:06

	Very seldom	Occasionally	Quite often	Very often
1. <i>Offering choices.</i>		✓		
2. <i>Giving encouragements.</i>				✓
3. <i>Providing hints.</i>		✓		
4. <i>Offering rationales.</i>		✓		
5. <i>Encouraging learners to set their own learning goal.</i>	✓			
6. <i>Generating a self-access facility in the classroom</i>		✓		
7. <i>Encouraging learners to develop critical thinking skills</i>		✓		

APPENDIX 2

8. Encouraging learners to create extension into learning experiences.		✓		
9. Encouraging learners to predict how well they are progressing.	✓			
10. Instigating self-assessment		✓		
11. Encouraging cooperative work.		✓		
12. Fostering peer assessment	✓			
13. Students' listening		✓		
14. Students' talk		✓		
15. Being responsive to students questions				✓
16. Encouraging learners to use CALL materials outside the classroom.	✓			

Checklist Number 5

General Information

1. Observer: Yaiche Wahida
2. Setting: 10:00 am; 20.11.2016; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 5th
4. Objective: Autonomy related factors and opportunities.
5. Lesson start: 10:00 am
6. Lesson end: 11:36

	Very seldom	Occasionally	Quite often	Very often
1. Offering choices.	✓			
2. Giving encouragements.			✓	
3. Providing hints.	✓			
4. Offering rationales.		✓		

APPENDIX 2

5. Encouraging learners to set their own learning goal.	✓			
6. Generating a self-access facility in the classroom		✓		
7. Encouraging learners to develop critical thinking skills		✓		
8. Encouraging learners to create extension into learning experiences.		✓		
9. Encouraging learners to predict how well they are progressing.		✓		
10. Instigating self-assessment		✓		
11. Encouraging cooperative work.		✓		
12. Fostering peer assessment		✓		
13. Students' listening				✓
14. Students' talk	✓			
15. Being responsive to students questions			✓	
16. Encouraging learners to use CALL materials outside the classroom.	✓			

Checklist Number 6

General Information

1. Observer: Yaiche Wahida
2. Setting: 11:30 am; 22.11.2016; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 6th
4. Objective: Autonomy related factors and opportunities.
5. Lesson start: 11:30 am
6. Lesson end: 13:00

APPENDIX 2

	Very seldom	Occasionally	Quite often	Very often
1. <i>Offering choices.</i>	✓			
2. <i>Giving encouragements.</i>			✓	
3. <i>Providing hints.</i>	✓			
4. <i>Offering rationales.</i>		✓		
5. <i>Encouraging learners to set their own learning goal.</i>	✓			
6. <i>Generating a self-access facility in the classroom</i>		✓		
7. <i>Encouraging learners to develop critical thinking skills</i>		✓		
8. <i>Encouraging learners to create extension into learning experiences.</i>	✓			
9. <i>Encouraging learners to predict how well they are progressing.</i>		✓		
10. <i>Instigating self-assessment</i>		✓		
11. <i>Encouraging cooperative work.</i>	✓			
12. <i>Fostering peer assessment</i>	✓			
13. <i>Students' listening</i>			✓	
14. <i>Students' talk</i>		✓		
15. <i>Being responsive to students questions</i>				✓
16. <i>Encouraging learners to use CALL materials outside the classroom.</i>	✓			

Checklist Number 7

General Information

APPENDIX 2

1. Observer: Yaiche Wahida
2. Setting: 11:30 am; 29.11.2016; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 7th
4. Objective: Autonomy related factors and opportunities.
5. Lesson start: 11:36 am
6. Lesson end: 13:02

	Very seldom	Occasionally	Quite often	Very often
1. <i>Offering choices.</i>		✓		
2. <i>Giving encouragements.</i>			✓	
3. <i>Providing hints.</i>	✓			
4. <i>Offering rationales.</i>	✓			
5. <i>Encouraging learners to set their own learning goal.</i>		✓		
6. <i>Generating a self-access facility in the classroom</i>		✓		
7. <i>Encouraging learners to develop critical thinking skills</i>		✓		
8. <i>Encouraging learners to create extension into learning experiences.</i>		✓		
9. <i>Encouraging learners to predict how well they are progressing.</i>	✓			
10. <i>Instigating self-assessment</i>	✓			
11. <i>Encouraging cooperative work.</i>	✓			
12. <i>Fostering peer assessment</i>	✓			
13. <i>Students' listening</i>			✓	
14. <i>Students' talk</i>		✓		

APPENDIX 2

15. *Being responsive to students questions*

16. *Encouraging learners to use CALL materials outside the classroom.*

		✓	
	✓		

Checklist Number 8

General Information

1. Observer: Yaiche Wahida
2. Setting: 10:00 am; 04.12.2016; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 8th
4. Objective: Autonomy related factors and opportunities.
5. Lesson start: 10:05 am
6. Lesson end: 11:35

	Very seldom	Occasionally	Quite often	Very often
1. <i>Offering choices.</i>		✓		
2. <i>Giving encouragements.</i>			✓	
3. <i>Providing hints.</i>		✓		
4. <i>Offering rationales.</i>	✓			
5. <i>Encouraging learners to set their own learning goal.</i>		✓		
6. <i>Generating a self-access facility in the classroom</i>		✓		
7. <i>Encouraging learners to develop critical thinking skills</i>		✓		
8. <i>Encouraging learners to create extension into learning experiences.</i>		✓		
9. <i>Encouraging learners to predict how well they are progressing.</i>		✓		

APPENDIX 2

- 10. *Instigating self-assessment*
- 11. *Encouraging cooperative work.*
- 12. *Fostering peer assessment*
- 13. *Students' listening*
- 14. *Students' talk*
- 15. *Being responsive to students questions*
- 16. *Encouraging learners to use CALL materials outside the classroom.*

	✓		
	✓		
✓			
		✓	
	✓		
		✓	
✓			

APPENDIX 3

Checklist Number 1

General Information

1. Observer: Yaiche Wahida
2. Setting: 10:00 am; 12.02.2017; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 1st
4. Observed things: autonomy related factors/opportunities while learning through OPG.
5. Lesson start: 10:00 am
6. Lesson end: 13:00

	Very seldom	Occasionally	Quite often	Very often
1. <i>Learners' are actively engaged.</i>			✓	
2. <i>OPG attracts learners' attention.</i>			✓	
3. <i>Learners' are interested.</i>				✓
4. <i>Learners act independently.</i>			✓	
5. <i>Learners make choices.</i>			✓	
6. <i>OPG engenders self-access facility in the classroom</i>				✓
7. <i>OPG develops learners' critical thinking skills</i>			✓	
8. <i>OPG helps learners to create extension into learning experiences.</i>		✓		
9. <i>OPG helps learners to estimate how well they are progressing.</i>				✓
10. <i>OPG initiates self-assessment</i>			✓	
11. <i>OPG promotes cooperative work.</i>		✓		
12. <i>Students seek for help</i>		✓		

APPENDIX 3

Checklist Number 2

General Information

1. Observer: Yaiche Wahida
2. Setting: 11:30 am; 14.02.2017; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 2nd
4. Objective: autonomy related factors/opportunities while learning through OPG.
5. Lesson start: 11:30 am
6. Lesson end: 14:30

	Very seldom	Occasionally	Quite often	Very often
1. <i>Learners' are actively engaged.</i>			✓	
2. <i>OPG attracts learners' attention.</i>			✓	
3. <i>Learners' are interested.</i>				✓
4. <i>Learners act independently.</i>			✓	
5. <i>Learners make choices.</i>			✓	
6. <i>OPG engenders self-access facility in the classroom</i>				✓
7. <i>OPG develops learners' critical thinking skills</i>			✓	
8. <i>OPG helps learners to create extension into learning experiences.</i>		✓		
9. <i>OPG helps learners to estimate how well they are progressing.</i>				✓
10. <i>OPG initiates self-assessment</i>				✓
11. <i>OPG promotes cooperative work.</i>		✓		
12. <i>Students seek for help</i>	✓			

APPENDIX 3

Checklist Number 3

General Information

1. Observer: Yaiche Wahida
2. Setting: 10:00 am; 19.02.2017; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 3rd
4. Objective: autonomy related factors/opportunities while learning through OPG.
5. Lesson start: 10:01 am
6. Lesson end: 13:00

	Very seldom	Occasionally	Quite often	Very often
1. <i>Learners' are actively engaged.</i>				✓
2. <i>OPG attracts learners' attention.</i>				✓
3. <i>Learners' are interested.</i>			✓	
4. <i>Learners act independently.</i>			✓	
5. <i>Learners make choices.</i>			✓	
6. <i>OPG engenders self-access facility in the classroom</i>				✓
7. <i>OPG develops learners' critical thinking skills</i>			✓	
8. <i>OPG helps learners to create extension into learning experiences.</i>			✓	
9. <i>OPG helps learners to estimate how well they are progressing.</i>				✓
10. <i>OPG initiates self-assessment</i>				✓
11. <i>OPG promotes cooperative work.</i>		✓		
12. <i>Students seek for help</i>	✓			

APPENDIX 3

Checklist Number 4

General Information

1. Observer: Yaiche Wahida
2. Setting: 11:30 am; 21.02.2017; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 4th
4. Objective: Autonomy related factors and opportunities while learning through OPG.
5. Lesson start: 11:35 am
6. Lesson end: 14:30

	Very seldom	Occasionally	Quite often	Very often
1. <i>Learners' are actively engaged.</i>			✓	
2. <i>OPG attracts learners' attention.</i>			✓	
3. <i>Learners' are interested.</i>				✓
4. <i>Learners act independently.</i>			✓	
5. <i>Learners make choices.</i>			✓	
6. <i>OPG engenders self-access facility in the classroom</i>				✓
7. <i>OPG develops learners' critical thinking skills</i>			✓	
8. <i>OPG helps learners to create extension into learning experiences.</i>		✓		
9. <i>OPG helps learners to estimate how well they are progressing.</i>				✓
10. <i>OPG initiates self-assessment</i>				✓
11. <i>OPG promotes cooperative work.</i>			✓	
12. <i>Students seek for help</i>		✓		

APPENDIX 3

Checklist Number 5

General Information

1. Observer: Yaiche Wahida
2. Setting: 10:00 am; 26.02.2017; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 5th
4. Objective: Autonomy related factors and opportunities while learning through OPG.
5. Lesson start: 10:00 am
6. Lesson end: 13:00

	Very seldom	Occasionally	Quite often	Very often
1. <i>Learners' are actively engaged.</i>			✓	
2. <i>OPG attracts learners' attention.</i>				✓
3. <i>Learners' are interested.</i>				✓
4. <i>Learners act independently.</i>				✓
5. <i>Learners make choices.</i>			✓	
6. <i>OPG engenders self-access facility in the classroom</i>				✓
7. <i>OPG develops learners' critical thinking skills</i>			✓	
8. <i>OPG helps learners to create extension into learning experiences.</i>		✓		
9. <i>OPG helps learners to estimate how well they are progressing.</i>				✓
10. <i>OPG initiates self-assessment</i>				✓
11. <i>OPG promotes cooperative work.</i>		✓		
12. <i>Students seek for help</i>	✓			

APPENDIX 3

Checklist Number 6

General Information

1. Observer: Yaiche Wahida
2. Setting: 11:30 am; 07.03.2017; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 6th
4. Objective: Autonomy related factors and opportunities while learning through OPG.
5. Lesson start: 11:30 am
6. Lesson end: 14:30

	Very seldom	Occasionally	Quite often	Very often
1. <i>Learners' are actively engaged.</i>				✓
2. <i>OPG attracts learners' attention.</i>			✓	
3. <i>Learners' are interested.</i>				✓
4. <i>Learners act independently.</i>				✓
5. <i>Learners make choices.</i>			✓	
6. <i>OPG engenders self-access facility in the classroom</i>				✓
7. <i>OPG develops learners' critical thinking skills</i>			✓	
8. <i>OPG helps learners to create extension into learning experiences.</i>			✓	
9. <i>OPG helps learners to estimate how well they are progressing.</i>				✓
10. <i>OPG initiates self-assessment</i>				✓
11. <i>OPG promotes cooperative work.</i>		✓		
12. <i>Students seek for help</i>	✓			

APPENDIX 3

Checklist Number 7

General Information

1. Observer: Yaiche Wahida
2. Setting: 10:00 am; 09.04.2017; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 7th
4. Objective: Autonomy related factors and opportunities while learning through OPG.
5. Lesson start: 10:00 am
6. Lesson end: 13:00

	Very seldom	Occasionally	Quite often	Very often
1. <i>Learners' are actively engaged.</i>				✓
2. <i>OPG attracts learners' attention.</i>			✓	
3. <i>Learners' are interested.</i>			✓	
4. <i>Learners act independently.</i>			✓	
5. <i>Learners make choices.</i>			✓	
6. <i>OPG engenders self-access facility in the classroom</i>				✓
7. <i>OPG develops learners' critical thinking skills</i>			✓	
8. <i>OPG helps learners to create extension into learning experiences.</i>		✓		
9. <i>OPG helps learners to estimate how well they are progressing.</i>				✓
10. <i>OPG initiates self-assessment</i>				✓
11. <i>OPG promotes cooperative work.</i>		✓		
12. <i>Students seek for help</i>		✓		

APPENDIX 3

Checklist Number 8

General Information

1. Observer: Yaiche Wahida
2. Setting: 10:00 am; 11.04.2017; Naama University Center; Department of Foreign Languages; English Section; Laboratory 1.
3. Observation: 8th
4. Objective: Autonomy related factors and opportunities while learning through OPG.
5. Lesson start: 10:00 am
6. Lesson end: 13:00

	Very seldom	Occasionally	Quite often	Very often
1. <i>Learners' are actively engaged.</i>				✓
2. <i>OPG attracts learners' attention.</i>			✓	
3. <i>Learners' are interested.</i>			✓	
4. <i>Learners act independently.</i>				✓
5. <i>Learners make choices.</i>			✓	
6. <i>OPG engenders self-access facility in the classroom</i>				✓
7. <i>OPG develops learners' critical thinking skills</i>			✓	
8. <i>OPG helps learners to create extension into learning experiences.</i>		✓		
9. <i>OPG helps learners to estimate how well they are progressing.</i>				✓
10. <i>OPG initiates self-assessment</i>				✓
11. <i>OPG promotes cooperative work.</i>		✓		
12. <i>Students seek for help</i>	✓			

Peer observation

Instructor: Wahida Yaiche	Observer: 1	Date: 13/11/16
Lecture Listening Comprehension	Time of Class: 10 am	Number of students: 30

Specific aims of the observation

❖ How could you describe my performance in supporting autonomous CALL?	<ul style="list-style-type: none"> • Does not make uses of all the available materials and resources. • Chooses activities that do not support self-directed learning. • Chooses activities irrelevant for making choices.
❖ How would you describe the role I play in my class?	<ul style="list-style-type: none"> • Source of knowledge. • Models, demonstrates, and provides feedback. • Monitors learners' learning • Re-teaches when necessary
❖ How would you describe my learners' roles in the class?	<ul style="list-style-type: none"> • Passive reliant learners • Listen without demonstrating comprehension. • Dependent and cannot learn without assistance.

Strengths and weaknesses in the teacher's performance

Key areas of strength	Key areas of Weakness
<ul style="list-style-type: none"> ✓ Providing feedback ✓ Encouraging learning 	<ul style="list-style-type: none"> ✓ You did not give Learners opportunities to practice independently

Peer observation

Instructor: Wahida Yaiche	Observer: 1	Date: 20/11/2016
Lecture: listening comprehension	Time of Class: 10 am	Number of students: 28

Specific aims of the observation

❖ How could you describe my performance in supporting autonomous CALL?	<ul style="list-style-type: none"> • Chooses activities inappropriate to the autonomy supporting quality of CALL. • Does not use all the available resources
❖ How would you describe the role I play in my class?	<ul style="list-style-type: none"> • Authoritative teacher. • Does not inform learners of the objective of the lesson. • Responsive to learner's continuous questions. • Follows an arranged lesson plan
❖ How would you describe my learners' roles in the class?	<ul style="list-style-type: none"> • Dependent and continuously asking for help. • Do not ask for alternatives. • Passive listeners and not reflective.

Strengths and weaknesses in the teacher's performance

Key areas of strength	Key areas of Weakness
<ul style="list-style-type: none"> ✓ Providing clarification and demonstrations. ✓ Providing encouragements 	<ul style="list-style-type: none"> ✓ You do not provide learners choices and rationales

Peer observation

Instructor: Wahida Yaiche	Observer: 2	Date: 15/11/2016
Lecture: oral expression	Time of Class: 11:30	Number of students:27

Specific aims of the observation

❖ How could you describe my performance in supporting autonomous CALL?	<ul style="list-style-type: none"> • Presents the speaking topic clearly. • Chooses activities unfitting to CALL environment. • Does not benefit from all the available materials.
❖ How would you describe the role I play in my class?	<ul style="list-style-type: none"> • Talks too much • Explains several times • Reactive to learners' commands. • Does not encourage peer assessment.
❖ How would you describe my learners' roles in the class?	<ul style="list-style-type: none"> • Listen and rarely participate. • They always ask for help • They do not provide hints.

Strengths and weaknesses in the teacher's performance

Key areas of strength	Key areas of Weakness
✓ Managing the use of CALL materials.	✓ Opportunities to benefit from CALL laboratory premises are missing.

Peer observation

Instructor: Wahida Yaiche	Observer: 2	Date: 22/11/2016
Lecture: oral expression	Time of Class: 11:30	Number of students:27

Specific aims of the observation

❖ How could you describe my performance in supporting autonomous CALL?	<ul style="list-style-type: none"> • Uses CALL resources in a limited manner. • Includes ordinary activities that do not necessitate CALL materials. • Incorporates experiences that do not promote critical thinking skills.
❖ How would you describe the role I play in my class?	<ul style="list-style-type: none"> • The sage on the stage who has to give directions and guide every student. • You did not encourage learners to set goals
❖ How would you describe my learners' roles in the class?	<ul style="list-style-type: none"> • Passive and unable to direct their learning. • They do not have any responsibility to take charge of their learning.

Strengths and weaknesses in the teacher's performance

Key areas of strength	Key areas of Weakness
<ul style="list-style-type: none"> • Managing the use of CALL materials. 	<ul style="list-style-type: none"> • You did not set expectations for students' achievement in accordance with abilities.

Peer observation

Instructor: Wahida Yaiche	Observer: 3	Date: 04/12/2016
Lecture: oral Comprehension	Time of Class: 10 am	Number of students:30

Specific aims of the observation

❖ How could you describe my performance in supporting autonomous CALL?	<ul style="list-style-type: none"> • Presents a listening course following a well-organized lesson plan. • Selects experiences that do not advocate autonomous learning.
❖ How would you describe the role I play in my class?	<ul style="list-style-type: none"> • Provides examples and illustrations. • Does not provide rationale. • Does not encourage self-directed learning. • Does not foster responsibilities.
❖ How would you describe my learners' roles in the class?	<ul style="list-style-type: none"> • Inactive learners who do not hold any ability to take decisions. • They do not act independently at all.

Strengths and weaknesses in the teacher's performance

Key areas of strength	Key areas of Weakness
<ul style="list-style-type: none"> • The teacher manages the laboratory as a whole. 	<ul style="list-style-type: none"> • The teacher does not manages the creation of an autonomous CALL.

Peer observation

Instructor: Wahida Yaiche	Observer: 3	Date: 06/12/2016
Lecture: oral expression	Time of Class: 11:30	Number of students:30

Specific aims of the observation

❖ How could you describe my performance in supporting autonomous CALL?	<ul style="list-style-type: none"> • The effective use of CALL materials to support self-directed learning is always missing. • The teacher continuously gives directions and guidance.
❖ How would you describe the role I play in my class?	<ul style="list-style-type: none"> • Uses assignments that do not reflect the autonomy-supporting feature of CALL. • Does not offer opportunities for self-direction.
❖ How would you describe my learners' roles in the class?	<ul style="list-style-type: none"> • Discuss the presented topic with the teacher and use the required materials. • They do not have access to other materials, as they are not encouraged to.

Strengths and weaknesses in the teacher's performance

Key areas of strength	Key areas of Weakness
<ul style="list-style-type: none"> • Encourages participation from all students 	<ul style="list-style-type: none"> • Does not benefit from CALL qualities.

Peer observation

Instructor: Wahida Yaiche	Observer: 4	Date: 04/12/2016
Lecture: oral Comprehension	Time of Class: 10 am	Number of students:30

Specific aims of the observation

❖ How could you describe my performance in supporting autonomous CALL?	<ul style="list-style-type: none"> • Presents the planned course using CALL materials but the students do not practice through CALL materials. • Does not encourage access to CALL materials.
❖ How would you describe the role I play in my class?	<ul style="list-style-type: none"> • Talks, monitors and illustrates most of the class time. • Does not provide choices. • Does not encourage the students' use of CALL materials all the time
❖ How would you describe my learners' roles in the class?	<ul style="list-style-type: none"> • Passive listeners who always seek for help. • Use CALL materials in a limited manner.

Strengths and weaknesses in the teacher's performance

Key areas of strength	Key areas of Weakness
<ul style="list-style-type: none"> • Cooperates and shares ideas with other teachers. 	<ul style="list-style-type: none"> • The selection of the assigned activities.

Appendix 6

Teacher's Interview

Dear teacher,

This interview seeks to collect information about the use of reflective practices in CALL laboratories to develop new applies for increased learners' autonomy. It is, also, an attempt to exhibit the achieved findings for critical discussion. Thus, you are kindly invited to answer the following questions sincerely for they are significant for the success of this work.

1. For how long have you been teaching English?
2. For how long have you been teaching English in CALL laboratories?
3. Have you ever come across difficulties when teaching the language through computers?
4. Have you faced the problem of learners' autonomy in CALL laboratory?
5. What do you do to deal with your learners' low autonomy level?
6. Have you ever reflected on your teaching practices while facing the problem of learners' autonomy?
7. Do you think that reflecting critically on your practices may develop your learners' autonomy?
8. How do you practice the act of reflection?
9. Do you think asking about the relevant and the irrelevant of your teaching practice from your colleagues can improve your teaching performance?
10. As a reflective teacher, I have used participant observation, peer observation and journaling along with action research to develop an action plan dealing with the problem of autonomy in CALL laboratory. The adopted action plan resulted in positive effects. Then, the researcher showed the achieved result of each tool alone and asked:
 - a. What do you think of the results achieved?

- b. Do consider reflective practices as useful in developing autonomous CALL?
 - c. Would you engage in the same reflective practices to develop your learners' autonomy?
11. If you are asked to review your expectations from reflective teaching practices to promote autonomous CALL, what would you say?

Thank you for your collaboration

Résumé

L'autonomie et l'indépendance d'apprentissage chez l'apprenant de la langue est l'un des plus fondamentaux facteurs dans le processus de l'acquisition de la langue. Ainsi, pour instaurer l'autonomie chez un apprenant, il est différentes modalités et stratégies à savoir notamment : l'apprentissage de la langue assisté par ordinateur désormais CALL : «Computer Assisted Language Learning » qui demeure une démarche moderne de création et de consolidation de l'autonomie. C'est dans cette optique que notre recherche s'inscrit et vise par-là à fournir une étude argumentée à propos de l'efficacité de l'enseignement réflexif pour développer la performance des enseignants afin de résoudre le problème de l'autonomie dans les classes d'anglais en prenant comme référence le cas des étudiants d'Anglais à Centre Universitaire de Naama. Elle vise aussi à diriger l'attention des enseignants vers une pensée critique pour gérer les situations complexes dans les classes d'anglais en général et au sein des laboratoires des langues en particulier.

Mots clés : apprentissage de langue assisté par ordinateur, l'autonomie de l'apprenant, enseignement réflexif, la pensée critique.

Summary

As an area of scientific inquiry, autonomy plays a significant role in promoting foreign language learning. Thus, various methods are employed for the sake of promoting learner autonomy. Computer Assisted Language Learning (CALL) is one of the most innovative methods that can be used to enhance autonomous learning in the area of language education. The present investigation proposes theoretical and practical frameworks to incorporate reflective teaching practice to deal with learners autonomy in CALL laboratory. It revolves around investigating the significance of reflective practice to develop EFL teachers' performance for increased learners' autonomy. It strives, then, to direct EFL teachers' attention towards critical reflection to manage puzzling situations in EFL classes in general, and CALL environment in particular.

Key words: CALL, autonomous learning, reflective teaching practice, critical reflection.

ملخص

تعتبر ذاتية واستقلالية المتعلم من اهم العوامل التي لها دور أساسي في تعلم اللغة الأجنبية، ولهذا طرق مختلفة يتم توظيفها لدعم ذاتية المتعلم. تعلم اللغة بمساعدة الحاسوب هو من أحدث الطرق التي يمكن اعتمادها لتعزيز الذاتية والاستقلالية. وعليه فإن هذا البحث يهدف إلى توفير معلومات حول مدى جدوى التعليم التأملي في دعم أداء المدرسين لتطوير ذاتية الطالب. بالإضافة الى ذلك يحاول هذا العمل شد انتباه المدرسين الى أهمية التعليم التأملي في حل المشاكل المستعصية في اقسام اللغة الإنجليزية عموما ومخابر اللغة على وجه خاص.

الكلمات المفتاحية: تعلم اللغة بمساعدة الحاسوب، ذاتية المتعلم، التعليم التأملي، التأمل النقدي.

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SUMMARY OF THE THESIS

*Dissertation Submitted to the Department of English in Candidacy
for the Degree of "Doctorate" in Language Studies.*

Presented by:

Ms. YAICHE Wahida

Supervised by:

Pr. SERIR Ilhem

Academic Year: 2018-2019

The increasing significance of English as a global means of communication, the progress of technological learning tools and the educational reforms are considered as key contributors to the new advancements in English language teaching methodology. Indeed, EFL teaching is a complex and demanding process where the teacher plays an ever-significant role especially in today's classrooms where technology is claimed to be an innovative pedagogical solution to promote foreign language learning. However, among the most intensive problems that may learners face is autonomy. Fortunately, it is specifically proposed that computer technology can be used to enhance learners' autonomy in the area of language education to promote learning and reinforce students to perform in a self-directed manner. Accordingly, teacher's reflective practice in the classroom is recommended.

In this concern, Autonomy is an area of interest in educational psychology that refers to the students' degree of independence and capacity to take charge of both the strategy and content of learning. It is defined by Rivers and Golonka as, "the active, independent management of learning by the learner" (2009: 255). It can be also discussed under the labels of self-regulation, learning-how-to-learn, learner independence, self-directed learning or self-access learning.

One of the claimed outcomes of CALL programs is the ability for students to learn at their own pace in their own time. CALL programs are designed to give teachers the role of facilitators rather than spoon feeders or knowledge providers. This role fits well with the constructivist view of learning which stressed offering students with more opportunities to handle responsibility for their own learning (Murray, 2007). Nonetheless, the provision of technological tools such as computer devices in educational institutions should be accompanied by changes in the forms in which instructed materials are presented to profit from the role of CALL in promoting learners' autonomy. Therefore, a sound attention has been drawn towards the importance of reflective teaching in CALL laboratories.

Recently, research has thrown substantial attention to the significance of reflective teaching practices at a large extent. Typically, reflective teaching practice on, in and for action can be undertaken using various tools, including observation, journaling, and reflective interviewing. Throughout the process of data collection, teachers can critically analyse and evaluate their teaching methodology to effectively use technology for increased learner autonomy.

Considerably, learners' autonomy is a crucial part of successful language acquisition. Its significance in foreign language learning has been widely investigated in several books and articles. Johnson K. and Johnson H. assumes that learners' autonomy is based on the environmental conditions that are responsible for the individualization of instruction and the enhancement of patterns of self-directed learning (1999). Thus, the dynamics of critical teachers' reflection to support autonomous EFL learning through CALL have been placed at the heart of research for the present thesis. Such a puzzling discussion between CALL, autonomy and reflective teaching constitutes a motive towards conducting this investigation. It struggles, then, to raise the problem of autonomy in CALL laboratories, use a number of reflective teaching practices for teachers' self and peer evaluation, for the sake of introducing a valuable contribution to the development English language teaching profession.

As an applied discipline, educational psychology attempts to cope with the complexity of human learning and account for students' characteristics in classroom settings. It had a considerable significance in approaching the fast growing challenges that education has faced in the 21st century using psychological theories, procedures and research (Eloff and Eberöhn, 2004). Moreover, this area of scientific inquiry gives considerable attention to individual differences in the learning environment such as autonomy, which is currently said to be one of the major areas of study in the field of educational psychology (Larson, 2009).

Autonomy acts as a crucial variant that may determine successful language learning, it has been the subject of many studies in the field of language

education. In political philosophy, Raz defines autonomy as, “the free choice of goals and relations as an essential ingredient of personal well-being” (qtd. in Benson, 2007: 732). Accordingly, personal autonomy has long been recognised as an objective of educational systems that aims to mature individuals with free and critical involvement in the society where they live. As far as personal autonomy is concerned, autonomy in learning is particularly concerned with learners’ active involvement in the process of their individual learning. This involvement is considered as important not only to the improvement of personal autonomy but beneficial to the process of learning as well.

In this concern, the concept of autonomy in language learning relies to the student-centered educational thought of thinkers like Dewey (1916), Freire (1970), Illich (1971), and Rogers (1969); in research on adult self-directed learning conducted by authors as Brookfield (1986), Candy (1991), Knowles (1975), and Tough (1971); and by writers in the psychology of learning such as Kelly (1963), Barnes (1976), Kolb (1984), and Vygotsky (1978). In the field of language learning, the idea of learner autonomy was first introduced in the 1970s in the context of the Council of Europe’s Modern Languages Project, which was designed to offer learners with prospects for lifelong foreign language learning. Since then, autonomy has gained increasing attention in the field of foreign language education, and a considerable amount of books, collections of papers, and journals have been introduced by writers such as Barfield & Nix, 2003; Benson, 2001; Benson & Toogood, 2002; Benson & Voller, 1997; Brookes & Grundy, 1988; Cotterall & Crabbe, 1999; Dam, 1995; Dickinson, 1987; Dickinson & Wenden, 1995; Holec, 1988; Little, 1991; Palfreyman & Smith, 2003 (Benson, 2007).

Consequently, Thomas (2009) contended that autonomy in learning is said to be a skill that cannot be developed naturally but that needs to be maintained by the learning environment. In a recent study, Benson (2001) proposed a clear taxonomy that reviews a variety of approaches and conditions, which can be applied to foster students’ autonomy; among which is a technology based environment that emphasizes independent interaction with technological

devices such as computers. In the same line of thought, Erben et al. believe that, “technology-enhanced classrooms have been found to promote discovery learning, learner autonomy, and learner-centeredness” (2009: 81).

As a form of technology supported learning, CALL is also deliberated as an approach in language learning in which computers are used to present learning materials to language students, or where computers are employed as tools to aid language learning. Besides, CALL is assumed to offer opportunities for learner’s self-direction of the EFL learning process. One of the claimed benefits of CALL Programs is that learners are given the chance to work at their own pace (Zhang, 2012). It has been also argued by Pritchard (2007) that the variant of autonomy in language learning is improved through the employment of computers. In another study, Law et al., (2003) stated that computer based activities are said to develop in the learner a sense of autonomy and self-direction of the learning process.

In the magister study conducted in 2013, the researcher has investigated the usefulness of CALL in higher education as a means to promote motivation of second year undergraduate EFL learners at the University of Tlemcen. The main findings obtained from this investigation demonstrated that most of the EFL learners show, to some extent, increased motivation when learning English using computers. The relevance of autonomy to motivation, which has been highlighted in the self-determination theory, has stimulated the researcher to investigate students’ autonomy and capacity to take charge of learning that may be enhanced by the environmental conditions CALL provides. The gathered data revealed that the effectiveness of CALL in promoting learners autonomy is totally dependent on the teacher’s managerial skills including the teacher’s ability to teach through computers, create an enjoyable classroom atmosphere, provide supportive environmental conditions and manage the learners’ behaviours, movement and interaction in such challenging environment.

The accumulated data which have shown that the teacher is the corner stone playing a vital role in the mission of CALL have encouraged the researcher

to continue within the same study which was only a prelude for further research focusing on the variable of autonomy rather than motivation. Consequently, the main objective of this study is to test the usefulness of one of the proposed recommendations that may result in an autonomous CALL. In this manner, it has been recommended that reflective teaching is one of the practices that the teacher can take up for helping the learner to be active, responsible and self-directed using the computer successfully for the acquisition of the four skills.

Since the time of Dewey, the act of one's thinking about his/her practice has been referred to as reflection and within the field of education there has been a trend towards developing reflective practitioners. According to Loughran (2005), reflection is obvious to the successful process of teaching. He further claims that Dewey's (1933) work of *How We Think* has contributed a lot to the continually received attention that reflective practice has gained in the field of education.

Dewey (1933) states that reflection is useful in helping teachers to make use of their artful skills to view problems from different perspectives, create a meaningful learning environment, guide and direct the learning process, and thus help learners make sense of the presented information (Loughran, 2005).

The reflective approach to teaching can be maintained through critical self-evaluation as a source for making decisions, planning and action. It is a means by which teachers accumulate information about teaching, assess their attitudes, beliefs, assumptions, and teaching practices; and utilize these information as groundwork for critical reflection about teaching. The latter can also be used as a means for professional development (Richards and Lockhart, 1996). In this vein, McEntee says

Reflective teaching is peeling back the layers of our own daily work, looking under the surface of our own teaching, making a conscious attempt to see our teaching selves as students see us, or as an observer in our classrooms would. It also means looking at the

wider contexts that affect our teaching—issues of social justice, of school structure, of leadership (2003: xiii)

In the same line of thought, Bartlett (1990) and Wallace (1991) contended that critical reflection could elicit a profound understanding of the teaching situation by asking questions about how and why things are the way they are in the educational setting. It entails an examination of the teaching experience as a means for assessment and decision-making and a basis for adjustment (Richards and Lockhart, 1996).

Consequently, various studies have been carried out for the sake of investigating the use of computer technology for self-directed language learning. Recently, Hayta and Yaprak (2013) have found in their investigation entitled “*Learner Autonomy and Computer Technology as a Facilitator of Autonomous Language Learning*” that learners show a considerable amount of autonomous learning activities when using technology. The relevance of teacher’s reflection to autonomous foreign language learning has been also highlighted in countless studies. Little (1995) argues that discussions of the objectives, course content, the way by which this content is presented, learning experiences and the evaluation of learners’ outcomes are significant to promote EFL learners autonomy in the classroom.

Yin and Chuk (2004) found that critical reflective practice has positive effects on learners’ autonomy. They further claimed that both teacher and learners become more autonomous and the quality of discussions in the classroom is enriched.

As a result, the present study is, then, a practical action research, which is based on the assumption that the teacher’s reflective practice in CALL laboratory is advantageous to maintain self-directed learning. It attempts to reach the conclusion about whether learners’ capabilities to take responsibility of their own learning in CALL environment are being set in stone or are changeable after teacher’s reflection about her practices.

1.1. STATEMENT OF THE PROBLEM

The effective teacher is the one who realizes that successful learning requires from learners to be autonomous. This can be attained through giving learners the opportunity to practice on their own. In such view, the teacher's role in CALL environment is absolutely different from that of the classical environment. S/He has to take the role of the facilitator who provides opportunities to learners, so that they will be empowered to learn. As CALL researchers' Murray and Christison said, the teacher becomes "the guide on the side" rather than "the sage on the stage". (2010:50).

Nowadays' EFL learners have unprecedented possibilities to acquire the four basic language skills, namely listening, speaking, reading and writing, in multimedia CALL environment. As many universities in Algeria, Naama University center has also benefited from multimedia CALL environments in which two (2) well equipped laboratories are provided for EFL learners.

Nonetheless, the provision of technological tools such as computer devices in educational institutions should be accompanied by changes in the forms in which instructed materials are presented to profit from the role of CALL in promoting learners' autonomy, and it is not the case in the university center of Naama. Teachers are excited to use computer laboratories to deliver the instructed materials especially the listening and speaking activities; however, they are still using traditional teaching and learning strategies in such autonomy-supporting atmosphere where the learners are totally dependent on their teachers with no hand on their learning process.

This could be probably due to various reasons including, lack of training, faulty methodology, insufficient knowledge, and/or inappropriate classroom management. Therefore, the mission undertaken by teachers to transform their teaching practices is not bereft of issues. There are countless obstacles that come from many directions. It is in this context that reflective teaching may be significant as a dynamic mechanism to overturn the teaching and learning

strategies in order that CALL will be advantageous in promoting EFL learners' autonomy.

After a period of teaching EFL learners the module of oral comprehension/expression in CALL laboratories, the teacher (researcher) found out many difficulties related to learners' autonomy. It was an observable issue during the majority of sessions in which most of learners were relying on the teacher's help. Many techniques were taken on by the teacher-researcher but with no value. This disappointment pushed the teacher to feel frustrated and not happy with herself as a teacher. For this reason, the teacher decided to adopt reflective practice in her teaching through CALL.

Reflective teaching practices such as observation on self and other colleagues, weekly journals, students' surveys and reflective interviews are suggested to be among the various tools that teachers can use to destroy any obstacle by critically analysing and evaluating their teaching styles to become effective users of technology in teaching for increased learner autonomy.

Based on the analysis of the significant role of reflection in teaching English as a foreign language and the autonomy-supporting feature of CALL, the main objective sets out to this research work is to assess the role of reflective teaching in promoting EFL learners autonomy in CALL labs focusing on the question of how may reflective teaching practice be useful for CALL to enhance EFL learners' autonomy?

1.2. THEORETICAL AND PRACTICAL APPROACH

Research and investigation have been enriched in the field of foreign language education throughout this demanding and challenging age of globalization. This is evident in the development of the professional activity of education that is reflected in the constantly growing number of books, journals, symposiums and conferences related to the raised issue of the present research work.

The investigation at hand is, then, based on practical action research, which includes the joint use of different research approaches and procedures. In that sense, practical action research entails rich descriptions of the identified issue and the planned change; introducing new instructional practices, collecting both quantitative and qualitative data from multiple sources, and analyzing and interpreting data for the generation of actionable knowledge. Thus, practical action research may be used as a practice for change and improvement as it merges between research and action. As believed by Lodico et al.

Action research is designed to enhance and improve current practice within a specific classroom, school, or district. Typically, it is a type of research undertaken by practitioners who have identified problems they wish to solve or who would simply like to find ways to enhance their own teaching or student learning, or both. (17: 2006)

Hence, within research in educational setting, a number of researchers have advocated a particular methodology that will result in immediate benefits for education. In this respect, Creswell (2012) believes that of all research designs, action research may be the most applied and practical type of research by which teachers as researchers explore a specific practical problem with the purpose of developing a solution to that problem. Therefore, action research is said to be a systematic procedure adopted by teachers to collect information and improve the ways their classrooms operate, their teaching and their students' learning. This study relies for the most part on a practical action research design in which the researcher engages in a participatory self-reflective research, while collecting both quantitative and qualitative data from diverse sources.

1.3. RESEARCH OBJECTIVES

The main objective behind writing this thesis is set out to demonstrate that the individual difference of autonomy as an effective dimension of EFL learning is clearly addressed in the environment of CALL and that it can be significantly fostered through teacher's critical reflection about her own teaching practices. Unfortunately, very little is written about the relevance of reflective practice as

an applied focus responsible for the enhancement of EFL learners' autonomy in CALL laboratories.

In view of that, the aims of the present research work are deliberated to investigate and analyze the teacher's (researcher) practices in the environment of CALL, the degree to which materials presented through CALL are autonomy supporting and the factors that may encourage the learners' self-directedness. All these aims are premeditated to develop an action plan based on a summary of findings, recommended actions, and the identification of the reasons responsible for the learners' low autonomy level and the teaching practices that need to be consulted, informed and refined. Moreover, it intends to investigate learners and peers' perceptions of the developed action plan (that is OPG Software) as part of the researcher's (teacher) own ongoing professional development. In a clearer picture, the objectives of this research work are:

- ✓ To highlight factors influencing learners' autonomy in CALL laboratory.
- ✓ To measure the extent to which teacher's critical reflection is advantageous to develop techniques and strategies that encourage learners to act in a self-directed manner in the setting of CALL.
- ✓ To evaluate the teacher's adopted action plan in order to find out if OPG might be possible to enhance autonomous EFL learning by modifying certain parameters of our instructional techniques which, perhaps may activate learners' self-directedness.

1.4. RESEARCH QUESTIONS AND HYPOTHESES

Therefore, with in the case of higher education, the goal of this research work is to answer the following question of how may teacher's reflection about her actions in the environment of CALL be advantageous to maintain learners' autonomy? Based on this research problematic, four sub-research questions were raised as follows:

- 1) Do EFL learners inevitably benefit from the autonomy-supporting feature of CALL?
- 2) Can reflective teaching practices be useful in developing teachers' performance to support autonomous CALL?
- 3) Which reflective practices best promote EFL learners' autonomy in CALL laboratory?
- 4) What are the characteristics of the action plan that promote learners' autonomy in CALL environment?

In order to investigate these questions the researcher puts forward the following hypotheses:

- 1) No, EFL learners may be placed in CALL laboratories but they may not necessarily be autonomous
- 2) Yes, reflective teaching practices can offer teachers an opportunity to recognize and make use of their strengths, and positively deal with their weaknesses.
- 3) For the creation of an autonomous CALL, EFL teachers need a reflection for action on their performance using reflective journals and peer observation in order to develop an action plan that develops the degree to which learners are encouraged, self-initiated and given responsibility to solve problems.
- 4) Reflective practice for autonomous CALL have to result in a plan of action that embraces the cognitive, metacognitive, social and affective factors to autonomous learning in addition to the integrative qualities of CALL.

1.5. INITIAL LIMITATIONS AND DELIMITATIONS OF THE STUDY

It is worth reminding that this research work is a practical action research aims at assessing the effectiveness of reflective teaching practice to promote autonomous CALL. At this level, the researcher has identified two types of limitations though the researcher has tried to deal with them. These limitations might be summarized as follows:

- The participants who have been selected for this study are two groups of thirty (30) EFL learners and ten (5) teachers. This fact may have some impact on the generalizations of the results; however, it opens the door for further research and further understandings of teachers' reflective practice and learners' autonomy while dealing with English in CALL environment.
- The amount of time devoted for the study is one year only, which may not be enough for practical action research, and the results are related to limited time-span.

Nonetheless, this research work has both benefits and shortcomings like any other type of research, hence, greater depth and understanding is needed to further elucidate the issue in question. Possible investigations based on large samples and considerable amount of time may help reach the generalization of the findings.

1.6. ORGANISATION OF THE THESIS

In order to probe the aforementioned hypotheses, six chapters are devoted to this research work. The present chapter has, in fact, been dedicated to setting the groundwork for the present investigation; its aim is to identify the rationale for this study, its problematic, its objectives, its research questions and hypotheses; it sheds light on previous related studies; and it also identifies a number of limitations and delimitations of the present thesis.

The critical review of literature relevant to this research work is dealt with in the second chapter. It discusses some key concepts utilized in this study, including reflective teaching practice, CALL as a pedagogical tool in the EFL context and autonomy as a psychological variable, which may be enhanced after the teachers' development of an action plan as a result of reflection.

The research design chapter offers the basis for a practical study in the English Department at Naama university center. The researcher selects a descriptive approach in this chapter that tries mainly to afford information (i.e. descriptions and explanations) about the target setting and population. It also

portrays the methodology including the design of action research; the procedures of data collection; and the instruments used for collecting data including learner autonomy scale, participant observational checklists, reflective journals, peer observation and teachers' interview.

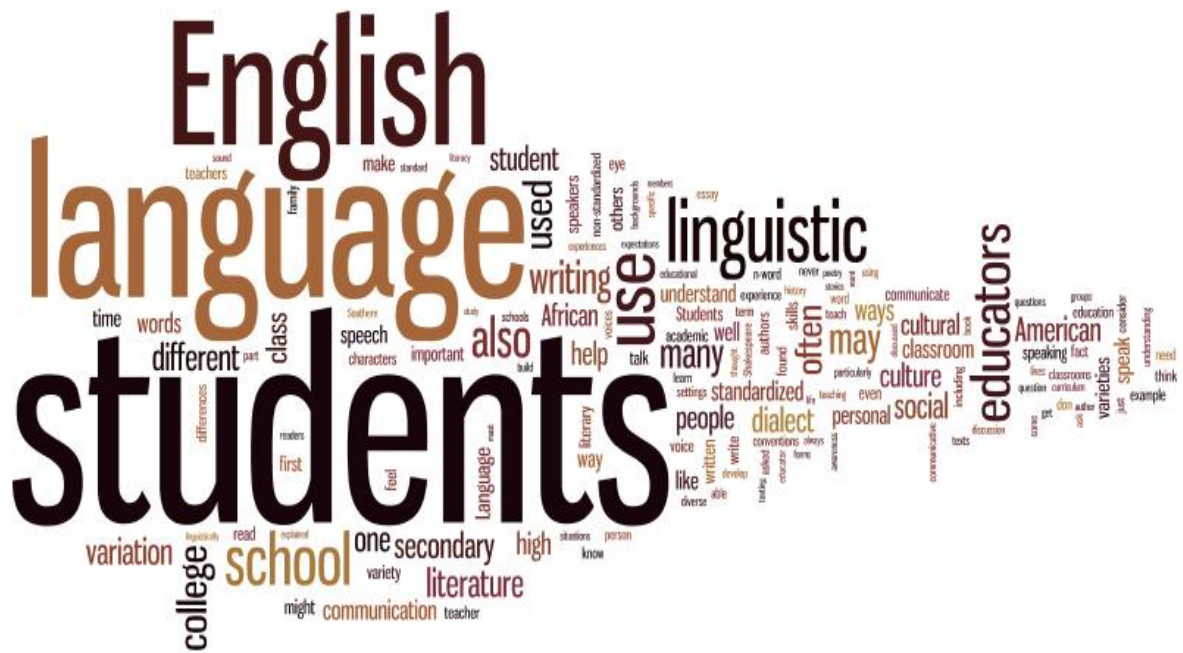
Analysing the collected data is an important part of any research project. Based on the descriptions provided in the third chapter, chapter four is devoted to the treatment of the obtained data both quantitatively and qualitatively in an attempt to answer the asked questions set out at the beginning of this investigation and to enhance the practicality and reliability of the results.

The fifth chapter suggests a set of reflections about techniques and strategies used to better learners' autonomy in CALL laboratories proposing a state-of-the-art methodology related to designing an autonomy supporting lab-based courses to EFL learners. It also aims at providing teachers with innovative ways of encouraging learners' self-directedness in a more relaxing, motivating and non-threatening atmosphere for learning. In a number of stages, the investigator has endeavored to introduce some suggestions and recommendations that may help both educational institutions and CALL teachers to come across or reduce the difficulties identified in the fourth chapter.

The final chapter of the current study provides a summary of the most important findings and discusses the implications, in addition to proposing a number of recommendations and suggestions for further research.

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DEVELOPING EFL LEARNERS' LISTENING COMPREHENSION THROUGH CALL FACILITIES

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ABSTRACT

Of the four skills that are generally acknowledged as fundamentals to learning a language, listening is probably the least respected in the Algerian schools, as it is not recognized in tests. Though undervalued, listening materials are currently accessible with accompanying CDs and DVDs. However, the lack of computer assisted language laboratories in Algerian middle and secondary schools effects the teaching and learning of English listening skill as pupils are not exposed to authentic language situations. Consequently, EFL students at the university level often fail to communicate in the target language. The present study, therefore, is an action research primarily concerned with developing EFL learners' listening comprehension in the environment where computer facilities are used. Its main objective is set out to determine the efficiency of CALL labs in enhancing learners' listening skill. In order to probe this objective, two research instruments were designed including tests and a questionnaire administered to teachers attentively designed to investigate learners' listening difficulties in addition to the importance of using CALL materials. In fact, two tests have been employed; a pre-test before the participants start studying listening through CALL and a post-test while learning through CALL to document their performance in both situations. The selected sample represents a group of thirty (30) first-year university learners randomly chosen from the wider population. The main findings obtained from this investigation demonstrated that most learners show a significant progress when learning listening using computers.

Keywords: Listening skill, listening comprehension, CALL, multimedia computing.

INTRODUCTION

The history of foreign language teaching was characterized by controversies and debates. In the past, listening was not recognized as the learning of a foreign language was based on reading and translation. However, changes in the beliefs about how people learn have largely influenced the foreign language methodology. Throughout the second half of the twentieth century, audiolingualism appeared to produce learners who could communicate effectively in the target language. It put the listening skill at the forefront of language teaching pedagogy. The emphasis of this method was on listening to passages; mainly dialogues that contain target grammatical structures, the students would rote practice the dialogues thereby learning them.

In 1960, the method became very popular and the language laboratories began to surge. Soon after, Terrell developed the natural approach based on Stephan Krashen monitor model in which the listening skill was largely recognized. Krashen asserts that languages are acquired when people comprehend messages that he called comprehensible input. The latter hypothesis has also set the stage for James Asher's method called total physical response that

in turn placed listening before speaking. In this method, students are required to react physically to the teacher's orders in order to demonstrate comprehension. By the advent of communicative language teaching, listening became more recognized as the approach advocated the practice of natural language situations. Its main goal is to develop learners' communicative competence, which is the ability to produce utterances appropriate to the context of communication (Wilson, 2008). This approach recommends the use of audio-recordings presenting slices of real life that would not only reflect students' interests but also respond more adequately to the technology supported classrooms.

Kohn (2009) largely acknowledges the role of technology in providing a pioneering potential for modern approaches to language teaching and learning. Technology is mainly suggested to support the communicative objectives of language teaching as it facilitates authentication through multimedia resources. Indeed, the rapid emergence of technology in schools and at home has intensely transformed the teachers' methodology and the students' learning styles.

In this manner, McClintock stated that, "the advent of computers and computer-literate children produced many changes in the teaching and learning strategies used by educators." (qtd. in Moreno, 2010: 538). Consequently, multimedia computing (as its name indicates, it integrates a variety of media such as text graphics, animation, video, sounds and photos in one presentation), has become a new pedagogical tool in foreign language classrooms (Brett and González Lloret, 2009). As far as the listening skill is concerned, Hung (2010) argued that videos are valuable resources that can afford the linguistic and cultural authenticity for language teaching, especially listening comprehension and vocabulary acquisition.

LITERATURE REVIEW

The Listening Skill

The language four skills are categorized as receptive or productive. Speaking and writing are productive skills whereas listening and reading are receptive skills. In addition, these skills are so integrated. What a learner practice through the exercise of a certain skill is strengthened through supplementary activities related to other skills. Throughout the process of language learning, learners listen then speak which demonstrates the importance of the listening skill in learning the speaking skill. Accordingly, Field (2008: 5) states, "listening is arguably the more important since it is listening which enriches the learner's spoken competence with new syntactic, lexical, phonological and pragmatic information". Nonetheless, it is sometimes considered as a passive skill. In this vein, Nunan (2003) contended that listening is a highly active and cognitive process that entails connecting the received input to already known information, which means that while listening people are "creating meaning". Aural input, in this sense, is crucial in the promotion of listening, thus, it has to be carefully scripted to learners containing target grammatical structures and/or target vocabulary (Wilson, 2008). Listening, usually, happens in the real time, thus comprehension has to take place immediately. It is the primary goal of listening; henceforth teachers have to reflect on what should be done to help learners get meaning from a listening activity.

Listening Comprehension

Listening comprehension is a key competence EFL learners need to practice for making successful communication. In fact, the term listening comprehension refers to the diverse procedures of decoding the spoken language. These entail knowing speech sounds, understanding the meaning of words and comprehending the syntax of statements. Field (2008) discussed comprehension as the intent towards which listening strives. It is principally the finale result of listening achieved by good listeners with slight apparent energy.

Chastain (1988) has divided listening comprehension into four main components. The first includes the capacity to differentiate between sounds, intonation patterns and the ability to distinguish sound qualities in the foreign language and the same sounds in the native language. Secondly, listening requires understanding the uttered message as a whole. The third component represents the listeners' ability to embrace that message in the auditory memory until it can be administered. The last component is comprehension that involves constructing meaning through relating signals from contextual information to existing knowledge.

Listening comprehension is, thus, difficult due to many causes. In their attempt to examine listening difficulties, researchers have tended to employ two models: the bottom-up and the top-down model. The former focused on decoding the smallest units as phonemes and syllables to lead listeners to meaning. The latter model emphasized the use of the already existing knowledge to predict meaning (Wilson, 2008).

Computer Assisted Language Learning (CALL)

Using computers for pedagogical determinations in general and in English language teaching in particular is referred to as CALL that is an acronym stands for Computer Assisted Language Learning. Brown defined it as "computer programs designed especially to teach language." (qtd. in Murray, 2007: 748). As a teaching method, CALL incorporates the utilization of multimedia resources; communication tools including e-mail, chat rooms and audio/video conferencing; in addition to specific software and applications planned principally for language learning (Brett and González Lloret, 2009). In this respect, Warschauer considered CALL as an efficient method for carrying instructed materials by arguing that it can reinforce learners, present innovative learning experiences and offer a space for cooperative identity construction (Murray, 2007).

Following the foreign language pedagogical evolution, CALL has gone through a regular progress from behavioural to cognitive and constructive theories of how languages are learnt. Its first application was influenced by the behaviouristic principles. Thus, it was named as behaviouristic CALL. Programmed instruction and drill-and-practice are programs that appeared throughout this era to help students learn by receiving immediate feedback as a stimulus to their responses. As a second phase, communicative CALL was a shift away from behaviourism to afford learners with the authentic context to perform the target language. Consequently, computer use has been developed to be a facilitative tool for language skill practice and CALL activities were changed to incorporate CD-ROM technology in terms of specific Software applications designed to reflect a highly authentic environment stimulated by animation, sound, graphics and texts. The third phase of CALL named as integrative aimed to integrate the four language skills into tasks and experiences. As explained by Warschauer and Healey, "integrative CALL ...seeks both to integrate various skills (e.g., listening, speaking, reading, and writing) and also integrate technology more fully into the language learning process" (qtd.in Donaldson and Haggstorm, 2006: 258). This stage witnessed the development of multimedia computing that includes a combination of sound, graphics, text, and video presented in one computerized program.

As for listening comprehension, CALL is claimed to provide a means for learners to get access to authentic listening sources about any topic they are interested in. Teachers' can take advantage of CALL facilities as a basis for listening comprehension exercises. They can use the computer for listening to digital audio recording of a radio broadcast or a related program.

When an audio content is transported to a media player, listeners can listen at their own suitability (Viswanathan, 2009).

METHODOLOGY

Problematic and Objectives

The lack of CALL laboratories in the Algerian middle and secondary schools has been claimed to affect the aural skill performance. Pupils at these two stages are not exposed to authentic listening situations. As a result, they often fail to communicate in the target language. This fact has led to hypothesize that difficulties in recognizing sounds and words in aural input can be resolved by the use of CALL lab. Therefore, the main objectives of this investigation are set out to

- Investigate the effectiveness of CALL laboratories in Algerian universities.
- Explore the efficiency of CALL facilities in developing EFL learners listening skill.
- Draw the officials' attention to the significance of CALL labs in schools.

Participants

This study was conducted in Salhi Ahmed University Center of Naama, Algeria. The subjects involved in the study are thirty (30) first year EFL learners and fifteen (15) teacher. The selected learners are aged between 18 and 22 years old. They are 12 male and 18 female participants. They have studied English for seven before arriving at the university: four years in the middle school and three years in the secondary school.

For the development of learners' communicative skills, the English Section at Naama University Center has provided computer assisted laboratories equipped with all the multimedia resources required for the enhancement of oral comprehension and expression skills. In the first academic year, EFL learners are presented to various modular courses of oral comprehension and expression, written comprehension and expression, grammar, phonetics and other subjects such as general linguistics, literature, civilization, research methodology, social and human sciences in addition to French as a foreign language.

The selected teachers are 10 females and 5 males aged between 28 and 44 years old. They make use of computers and multimedia resources such as the data show as integral parts of the instructed listening materials in all most all lectures.

The selected sample was randomly chosen on the representativeness principle in a sense that the attained data would be representative to the whole population under inquiry to generalize from the findings.

Instrumentation

In order to collect the necessary amount of data, the following research instruments were used.

Aural Test

For the sake of determining the participants' level of oral comprehension and examining the efficiency of CALL lab, the participants were required to do an aural test before and after receiving lectures assisted by multimedia computing. The test was based on a radio conversation between two native speakers of English. It contained simple questions that required clear short answers. The test consisted of four exercises and each exercise contained five items. The first exercise contained five closed questions based on learners' comprehension. The second exercise comprised lists of words based on the difficulty degree. The third exercise consisted of five statements to focus on intonation and stress placement. In

the last exercise, learners were asked to filling a gapped passage containing five blanks. These exercises were designed carefully to tackle the problematic areas in listening comprehension that entail exhaustive practice. Thus, the test items were attributed to aspects of listening that need a high level of cognitive engagement.

Questionnaire

The questionnaire includes twelve items of different types. These items were designed to collect data from teachers of Naama University Center. Thus, the questionnaire addressed first learners' aural comprehension difficulties, the importance of using technology in class, in addition to the teachers' viewpoints regarding the effectiveness of CALL labs in learning aural comprehension. It aims at assessing the role of CALL labs on handling the required features of a valuable listening comprehension course. Besides, some items were devoted to explore the role of effective teaching in learning the aural skill.

RESULTS

The main results obtained from the two data collection methods are going to be systematically analyzed in this section. Firstly, aural skill test was designed in a form of pre-test and post-test to measure the levels of learners' performance before and after receiving computer assisted listening comprehension courses. Secondly, a questionnaire was administered to teachers to assess the role of CALL facilities in enhancing EFL learners' aural skill.

Pre-aural Test

This test was given to the studied group before experiencing listening comprehension through CALL. It aims to document the participants' performance to compare it with their performance in the post-test in order to assess the hypothesized progress.

<i>Exercises</i>	<i>Correct answers</i>	<i>Incorrect answers</i>	<i>No answer</i>
<i>1</i>	36%	47%	17%
<i>2</i>	32%	48%	20%
<i>3</i>	40%	47%	13%
<i>4</i>	42%	48%	10%
<i>Total</i>	37,5%	47,5%	15%

Table 1 Pre-test Results

The table shows the pre-test results of the studied group by presenting the total average of the correct, incorrect and left answers. The percentages in the table reveal that the average of learners correct answers was 37,5%, while the average of their incorrect responses was 47,5%. These results confirm that the studied group faced serious listening comprehension difficulties to the extent that they left an average of 15% without any answer.

Post-aural Test

After experiencing learning listening comprehension in CALL lab, the same pre-aural test was administered to the studied group.

<i>Exercises</i>	<i>Correct answers</i>	<i>Incorrect answers</i>	<i>No answer</i>
1	62%	30%	8%
2	64%	31%	5%
3	59%	34%	7%
4	68%	28%	4%
<i>Total</i>	63,25%	30,75%	6%

Table 2 Post-test Results

The table demonstrates the results of learners' performance in listening comprehension after experiencing learning through CALL. The findings denote that the average of learners' correct answers was 63,25%, the average of their incorrect answers was 30,75%, while the average of the exercises that were left without any answer was 6%. Comparing these results with the pre-test results, the researcher found that there is a progress in the studied group performance. Therefore, the use of language labs has positive effects on learners' aural skill, which firmly confirms the research hypothesis.

Questionnaire

This instrument was administered to a group of EFL teachers. It intended to find about learners aural difficulties, the effectiveness of CALL lab in enhancing the learners' aural skill and the role of effective teaching methods in language labs.

The first aim was assessed in the first four items. The results indicated that 90% of teachers are strongly agree that EFL learners faced serious listening difficulties at the very beginning of receiving instructed materials through CALL. On the listening difficulties, 65% of teachers are agree on the fact that learners' listening difficulties lied in the bottom-up strategy while 35% are agree on the top-down difficulty. However, almost 79% of teachers ensured that learners' listening difficulties have been decreased after studying in CALL labs.

Afterwards, six items were devoted to examine the second goal. Table 3 displays the main findings that show the efficiency of CALL in the enhancement of the aural skill learning.

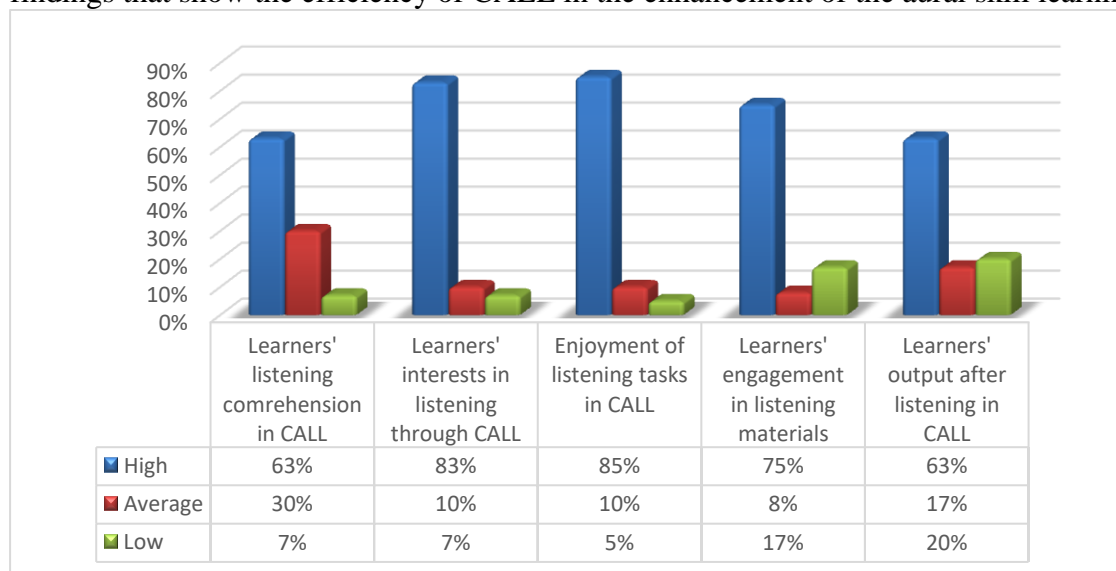


Table 3 The Effectiveness of CALL Materials in Developing Listening Comprehension

The analysis of teachers' responses showed that CALL materials have high positive effects on listening comprehension as it highly attract their attention and enhance their cognitive engagement. In addition, listening through CALL develops learners' output after listening.

On the role of the effective methodology, the majority of teachers stressed that the teachers and learners' training to use CALL materials is of crucial importance for the success of CALL intended benefits. They also agree on the availability of the needed materials and the regular technical repair for effective CALL use.

DISCUSSION

The obtained data revealed that the studied group has shown a valuable progress in listening comprehension after learning in CALL lab. The test results confirmed that learning in CALL labs is influential. Learners' performance has been enhanced after experiencing listening in CALL lab; as it is shown by their scores in the post-test.

The questionnaire results demonstrated that learners' listening comprehension was enhanced while studying through CALL. This, indeed, entails learners' interest in learning through CALL, in addition to their task enjoyment and cognitive engagement. Teachers, essentially, have demonstrated this fact, when 79% of them ascertained that their learners' performance in listening comprehension has been developed by CALL facilities.

As a result, this investigation achieved the researcher's rational, explained the raised problematic and confirmed the suggested hypothesis. The findings proved the importance of using CALL labs in teaching English communicative skills.

CONCLUSIONS

This research paper has given an account to the benefits of CALL facilities in relation to the realization of developed listening comprehension competence. After analyzing data, it was obvious that the employment of CALL as a pedagogical tool was beneficial for aural comprehension. Hence, it is suggested that CALL is a resourceful pedagogical method that has to be employed in all educational institutions.

To conclude, this study has been undertaken in an attempt to highlight the value of CALL in developing learners' aural skill, thus, encouraging officials in middle and secondary schools to provide computer technology to treat EFL learners' listening difficulties as they reported positive results when learning through CALL. Thus, this research is presumed to offer valuable insights to teachers and administrators to use computers for the sake of teaching English to Algerian learners.

REFERENCES

Books

- Brett, D., Lloret, L. (2009) Technology-Enhanced Materials. In Long et al. (Eds.), *The Handbook of Language Teaching*. UK: Blackwell Publishing.
- Chastain, K. (1998) *Developing Second Language skills*. 3rd U.S.A: Harcourt Brace, Jovanovich, Inc.
- Donaldson, P., Haggstorm, A. (2006) *Changing Language Education through CALL*. UK: Taylor and Francis e-library.
- Field, J. (2008) *Listening in the Language Classroom*. UK: Cambridge University Press.
- Hung, H. (2010) New Literacies in New Times: A Multi Model Approach to Literacy Learning. In H. Yang & S. Yuen (Eds.), *Handbook of Research on Practices and Outcomes in E-learning*. USA: ISR.

- Kohn, K. (2009) Computer Assisted Language learning. In K. Knapp & G. Antos (Eds.), *Handbook of Foreign Language Communication*. Germany: Walter de Gruyter.
- Moreno, R. (2010) *Educational Psychology*, United States of America: John Wiley and Sons.
- Murray, Denise, E. (2007) Creating a Technology-Rich English Language Learning Environment. In C. Jim & C. Davison (Eds.), *International Handbook of English Language Teaching*. USA: Springer Science Business Media LLC.
- Nation, I.S.P., Newton, J. (2009) *Teaching ESL/EFL Listening and Speaking*. New York: Routledge, Taylor and Francis Group.
- Nunan, D. (2003) *Practical English Language Teaching*. New York: Mc Graw-Hill Companies.
- Ur, P. (1984). *Teaching Listening Comprehension*. UK: Cambridge University Press.
- Viswanathan, R. (2009) Using Mobile Technology and Podcasts to Teach Soft Skills. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning*. USA: ISR.
- Wilson, J. (2008) *How to Teach Listening*. UK: Pearson Education Limited.