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An Investigation into the Role of Computer Assisted Language Learning as a Teaching Strategy to Foster Learners' Comprehension in the Research Methodology Course:

The Case of Second Year Students of English at Biskra University

Dissertation submitted to the Department of Foreign Languages as a partial fulfilment of the requirements for the degree of **Master** in **Sciences of Languages**

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Declaration

I, Imen **LAKHDAR HAMINA**, hereby declare that the present research, which is entitled "An Investigation into the Role of Computer Assisted Language Learning CALL as a Teaching Strategy to Foster Learners Comprehension of Research Methodology Course", is my own work. This work has not been submitted before to any other institution or university for a degree.

This study was accomplished and conducted at the level of Mohamed KHEIDER University of BISKRA, ALGERIA.

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Dedication

I dedicate this modest work to my dearest parents

My father **Mohamed**, and my beloved Mother **Nadia BENHAMIDOUCHE**.

I would like to thank them for all their efforts, motivation, support, and prayers.

To my dear brothers **Rida, Toufik, Zohir, Nacim**

To my treasured sisters **Karima, Fatima**

To my lovely aunt **Soria**

To my angels nephews and nieces

And all my family

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Abstract

The course of research methodology is one of the most important courses in the teaching English as a foreign language curriculum at Biskra University. However, the adopted method of teaching that course at Biskra University which is purely theoretical, may create comprehension difficulties for learners. Thus, in the present study we suggested the integration of computer assisted language learning (CALL) as a teaching strategy to foster learners' comprehension of research methodology course. Believing that a room of practice using computers may reinforce the students' comprehension; hence, the present research aimed to investigate the effectiveness of the suggested strategy to enhance the students' comprehension of research methodology course, which is practical in nature. In the current study, we hypothesized that teaching the research methodology course theoretically may obstacle the comprehension process of the course and prevent students from reaching their academic goals. For that reason, we suggested another hypothesis that supposed that learners' comprehension of research methodology course may be fostered through the use of computer assisted language learning. To check out the validity of our suggested hypothesises we opted for a qualitative approach. In relevance to this approach, three data collection methods were used to investigate learners and teachers' attitudes towards the integration of computer assisted language learning as a teaching strategy to enhance students' comprehension of research methodology lectures. The used tools are the. classroom observation, which was a non-participant observation that took place within the traditional classes as well as within the integration of CALL strategy. Unstructured interview designed for teachers, and a focus group discussion administrated to a sample of eight students (second year department of English at Biskra University). After the interpretation of the collected data, the findings show that the students faced difficulties in comprehending lectures of research methodology course through the theoretical method. Moreover, the results revealed that the use of computer assisted language learning helps in fostering the learners' comprehension of research methodology course. As a result, the suggested hypotheses are validated.

Key Words: *CALL, Computer Assisted Language Learning, EFL, Lecture Comprehension, Research Methodology Course, Teaching Strategy*

List of Abbreviations and Acronyms

APA: American Psychological Association

CALL: Computer Assisted Language Learning

CD-ROM: Compact Disc Read-Only Memory

Dr: Doctor

EFL: English as a Foreign Language

ELT: English Language Teaching

Et al: And Others

i.e.: Id Est and means "In Other Words"

ICT: Information and Communication Technologies

ILET: International Liaison and Enquiry Team

IT: Information Technology

L2 Learners: Learners of Second Language

L2: Second Year Licence

LBA: Laboratory-based Approach

M2: Master Two

Min: Minutes

MLA: Modern Language Association

Mr: Mister

n.d: No Date

SAL: Student's Approach to Learning

OS: Operating System

P: Page

PC: Personal Computer

PHD: Doctorate

PPT: Power-point

RH: Research Hypothesis

RM: Research Methodology

RQ: Research Question

TD: Travaux Dirigés (French) Tutorial Sessions (English)

TOFEL: Test of English as a Foreign Language

UMKB: University of Mohamed Khider Biskra

WWW: World-Wide Web

&: And

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General Introduction

Introduction

Learning English as a foreign language has always been a central issue for manylearners, where they are supposed to learn new skills and knowledge of the language. However, the acquisition of those skills and knowledge requires a high awareness of both the teacher and the learner. Yet, the teacher has a greater responsibility of providing learners with purposeful directions in order to deliver the core information of the lecture and make the learners understand the course with the simplest possible strategy. Taking into account that understanding a lecture is not a matter of attending the course and listening to the theoretical rules, namely when it comes to the practical subjects, but a kind of practice is extremely needed in order to embed the lecture comprehension. Furthermore, as a matter of fact, good comprehension of the lecture guarantees a good academic achievement and performance of the learners.

However, in the recent years, technology has played an increasingly large role in education, incorporating different technologies, such as "ICT" that stands for information and communication technology, which can enrich and transform education for the better. In a similar vein, an emersion of enormous communication technologies has been continuously witnessed such as iPods, smartphones, and laptops and so on, as well as information technologies such as the internet and electronic files. Studies have confirmed that the computer is one of the most beneficial tools of ICTs regarding the change it made in the traditional ways of teaching and the ancient approaches, as well as the important role it has in facilitating the teaching/learning process and fostering the learner's comprehension of the lectures. Thus, the present study aims to explore to what extent the computer-assisted language learning (CALL) programmes are used in the teaching/learning process and to investigate their effects on developing the student's comprehension of the lecture, namely in the research methodology course.

1. Statement of the Problem

One of the main problems faced in EFL classes of Biskra University is the gap in the lecture's comprehension, especially in the research methodology course, taking into consideration that research methodology course focuses more on the practical side which leads to a better grasping and understanding of information. However, the university's lack of technological tools and equipment caused the obstruction of the lecture comprehension process. Moreover, since the university students consider lectures as the main way to receive the core

knowledge because they tend to not be autonomous, hence delivering a practical lecture theoretically with no practice may degrade the student's comprehension and level as well. Though, it has been noticed that most EFL classes Biskra University are teaching the practical courses theoretically, particularly the research methodology course of the second year.

To overcome this problem, we suggest the use of the computer-assisted language learning programmes (CALL) as a teaching strategy to foster learners' comprehension of research methodology course. Since we have noticed that the teaching/learning process has been facilitated through the apparition of the different information and communication technologies (ICTs), learners are becoming able to achieve their educational and academic goals easily. Moreover, since nowadays' learners are greatly influenced by the new technology, the use of CALL instruction as a solution to foster learners' comprehension would be a convenient one. Furthermore, the use of CALL programme encourages both student and teacher to be familiar and in touch with the new technology which has dominated most areas of research. Thus, it is worthy to investigate how the CALL programme helps to enhance and foster the learner's comprehension of research methodology lecture and how it paves the way for the learner to be motivated, cooperated and interacted.

1. Research Questions

This research seeks to answer the following research questions:

RQ1: Does the theoretical way of teaching the research methodology course in Biskra University helps the learners to comprehend the lecture and reach their academic achievements?

RQ2: Does the use of the computer-assisted language learning CALL in EFL classes helps to foster the learners' comprehension of the research methodology course?

2. Research Hypotheses

Based on the above research questions, we propose the following research hypotheses:

RH1: Teaching the research methodology course theoretically may obstacle the comprehension process of the course and prevent learners to reach their academic goals.

RH2: The learners' comprehension of the research methodology course may be fostered through the use of computer assisted language learning.

4. Aims of the Study

- ✓ This study aims at highlighting the role of computer-assisted language learning CALL as a language teaching strategy to foster the learners' comprehension of the research methodology course.
- ✓ To investigate the importance of using the CALL in EFL classes of the second year and listing its main benefits.
- ✓ To find out how the teacher and student use the CALL in the teaching/learning process.
- ✓ To encourage the use of the CALL programme in EFL classes in order to enhance learners' comprehension of the lecture.

5. Research Methodology

This section includes the research methodology used in the conduction of the present research. Starting with the research approach, research design, and data collection methods. In addition to the data collection and analysis procedures, population and sample, and sampling technique.

5.1 Research Approach

In order to answer the research questions stated above and confirm our hypotheses, the data needed was collected through the use of the qualitative approach because we tend to describe the data obtained concerning the CALL programme.

5.2 Research Design(s) / strategy (ies)

In this research work, we opted for the case study as a research strategy in order to explore the learners' as well as teachers' attitudes towards the effectiveness of CALL in developing learners' comprehension of the lecture. Since our conditions of conducting the research and the case that has been studied are formal, existing in a specific time and place, the use of the case study as a research design would be an adequate one. As well as the use of the case study design allows the use of any data collection method.

5.3 Data Collection Methods / Tools

Our data were collected through the use of three tools:

- • A classroom observation: which has been scheduled during the research methodology sessions of second year. We attended sessions with both section one and section two because all students are concerned with the use of CALL. Moreover,

we have opted for the classroom observation as a data gathering tool because it provides us with a live and natural data, as it helps us to observe the ongoing of the process of the CALL integration and observing the students attitudes as well.

- A teachers' interview: This has been conducted with five different teachers of Biskra University, in order to get their opinions and attitudes towards the use of CALL strategy in enhancing the comprehension of RM courses. Moreover, we have chosen the interview as a data collection tool because it is not time-consuming and provide us with live and more spontaneous information.

- Students' focus group interview: which has been conducted with a sample of eight students of the second year to participate in a discussion and answer the questions of the interview, that leads us to gather information about their attitudes towards the use of CALL, it has been used because it is an economical way to gather a large amount of qualitative data as it can provide us with rich information.

5.4 Data Collection Procedures

The data collection procedures used in this research was the interviewing which enables us to get reliable data from the teacher, and direct information from the students who have participated in the focus group interview.

5.5 Data Analysis and Procedures

In this research, we opt for a qualitative approach. Thus, our data analysis would be a descriptive one because we aim to describe the data concerned with the relationship between CALL and lecture comprehension.

5.6 Population and Sample

In this research, we decided to choose second year students of English Biskra University because their research methodology course is taught with the CALL programme and they are more used to the applications of computers.

A non-random choice of eight students was dedicated to participate in the focus group discussion. Moreover, five teachers of MKUB were chosen purposively to arrange the interview.

5.7 Sampling Technique

Our sample was chosen in a non-random way to fit the criteria of our research because we aimed to reach specific goals. Thus, the individuals of the population do not have equal chances to be selected. As we opted for a purposive sampling technique because we were dealing with a qualitative study which should have a sampling plan that lines up with the purposes of our the study .i.e. our study had certain purposes to reach which makes it worthy to evolve the purposive sampling technique.

6- Significance of the Study

This study is extremely significant in terms of providing the teachers with new insights of teaching research methodology course in order to facilitate the lecture comprehension process for the learners. Moreover, it shed light on the importance of computer-assisted language learning as a helpful, motivational and encouraging teaching strategy to foster learners' comprehension.

7- Structure of the Dissertation

The current study is composed of two main parts. These are the theoretical part and the practical one. The former consists of two chapters that provide a general overview of the computer-assisted language learning, and an introduction to the lecture comprehension and its related aspects. The latter consists of one chapter which is devoted for the analysis and discussion of the data gathered through the use of three instruments. Which makes a total number of three chapters. The three chapters are categorised as follows:

❖ Chapter One

This chapter reveals an overview of the computer assisted language learning. Starting by presenting the different types of ICTs and their significance on learning. Moving to discover the different E-learning types. Then, a presentation of the history, definition, and categories of computer-assisted language learning. Then it spots the light on the benefits of using the CALL strategy to enhance the learning process. The following point discusses the challenges faced in using the computer-assisted language learning as a teaching strategy. Furthermore, it explains the relationship between CALL and corrective feedback. As it concludes by approaching the computer-assisted language learning as a teaching strategy with the lecture comprehension of EFL learners.

❖ Chapter Two

The second chapter tackles the lecture comprehension and its related aspects. Starting by a general definition of education and academia, the relationship between them and a brief comparison of education between past and present. Next, we provide an explanation of some traditional methods in teaching English, mainly Grammar-translation method, audio-lingual and the direct method. Thereafter, we move to describe the teachers' roles and learners' types. The following point is concerned with education and cognitive psychology; in this vein, we tend to provide a deep description of lecture comprehension, its importance and the problems that students may face in comprehending the delivered lectures. In the end, we conclude with the academic achievement, factors that affect it and the relationship between lecture comprehension and academic achievement.

❖ Chapter Three

This chapter is dedicated to the interpretation and analysis of the obtained data through the use of three data gathering tools, which are classroom observation, teachers' interview, and students' focus group discussion. The choice of the three data gathering tools is according to the nature of our research. Thus, we opt for the classroom observation in order to observe the integration of the CALL strategy and the students' attitudes towards this integration. As we opt for the interview to gather data from teachers in order to see their thoughts about the use of ICTs, namely CALL in teaching. While the use of the focus group discussion is to have feedback from students concerning the adopted method of teaching research methodology, and the use of CALL to foster their comprehension of that course. Hence, in order to have a credible study, we analyse the three instruments descriptively. In addition, the chapter presents the summary and synthesis of the results. Moreover, it illustrates some pedagogical implications for both teachers and students.

Chapter One

Computer Assisted

Language Learning

Chapter One: Computer Assisted Language Learning

Introduction

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Introduction

The current chapter deals with the main themes associated with the CALL programmes. First, we start by discovering the ICT tools, types, and significance. Then, we move to the different types of E-learning which are based on the CALL programmes. As we discuss CALL in deep and provide its main benefits and challenges. Eventually, the chapter will present the relationship between the CALL programmes and lecture comprehension.

1.1 Definition of ICT

Generally speaking, the term ICT which stands for information and communication technologies refers to the new technologies that help and facilitate communicating, searching and storing information. However, it is not very easy to give an exact definition for such term, taking into consideration that the concept still ill-defined because of the difficulty in characterizing its unique nature.

In this respect, the English Cambridge Dictionary defines ICT as a sort of information and communication technology: a school subject in which students learn to use computers to store and send information. Moreover, Gokh (n.d, p.1) asserts that "ICT is a technology that supports activities involving information. Such activities include gathering, processing, storing and presenting data. Increasingly these activities also involve collaboration and communication. Hence IT has become ICT: information and communication technology". Hence, the shift from IT to ICT was due to the emersion of different communication technologies.

The previous quote implies that ICT includes different activities, which involve interaction and communication, those activities, are namely: gathering, processing, storing and presenting data. However, the term ICT was argued in terms of the exact meaning it illustrates and the systems it comprises. Syed (2013) states that the term ICT creates a misconception because generally, it tends to refer to computers and computing related activities. Yet, despite the significant role that computers and their applications have in modern information management, the term regarded as ICTs comprises also other technologies.

In conclusion, many scholars and authors have defined the term ICT differently. Yet, all definitions agree on the positive change and the educational enhancement made by the new information and communication technologies.

1.2 Types of ICT

Due to the great change made by the emersion of ICT and the large effect it has on the social life, many problems are solved as well as many issues are facilitated; such as the distance which is no longer a problem in accessing information from all over the world with an internet connection. ICT is mainly divided into two broad types: Hardware and software, the two types are greatly different and each of them is sub-divided and includes certain systems and tools of ICT.

1.2.1 Hardware

It refers to the physical aspects of all new technological devices used nowadays, such as the computer, data show, cell-phones and so on. Hardware has been defined by the English Oxford Dictionary as the machines, wiring, and other physical components of a computer or other electronic system.

✓ **Computer**

The computer is one of the electronic devices which is capable of receiving, storing and manipulating information with the use of some specific programmes. According to Williams and Easingwood (2004, p.6) cited in Addou (2017) Computer an adjustable device that has the ability to process a huge amount of different types of data at the same time with a very high rate. Moreover, it has been claimed by (Roper & Millar, 1999) that a computer is a programmable machine, which enables the user to store all sorts of information then processes them or carry out actions with that information, such as calculating numbers or organizing words. As he adds that computers can be classified by size and power.

✓ **Data-Show/ Projector**

The projector is a device that is used to show pictures and video through the screen which is connected to a computer. It is defined by the English Cambridge dictionary as a piece of electronic equipment that is used to show information from a computer screen on a large screen. Nowadays projectors are commonly used in teaching due to the efficiency and facility they offer to the learning process.

✓ **Cell-Phones**

Generally, the term Cell-phone refers to the small and personal telephone which is wireless so that people can take and use them outside their houses. A cell phone is defined by the English

Cambridge Dictionary as a phone that is connected to the phone system by radio instead of by a wire and can be used anywhere where its signals can be received. In fact, nowadays learning process has become extremely influenced by the use of Cell-phones which help learners to be more active, cooperated and engaged. In this sense Wilson and Piraino (2016, p.1) report "Classroom cell phones use cannot only help increase student interest and engagement but can also provide teachers with a streamlined approach to the integration of in-class academic research and citation, active learning methodologies and cooperative learning strategies". Thus, the use of Cell-phones in the classroom is extremely beneficial in terms of fostering the student's learning and engagement as well.

✓ **Video Camera**

It is an electronic device used to take photos and store them as well as to record videos and sounds. According to the Advanced English Dictionary, it is an instrument used to record videotapes often used by amateurs. While according to the Oxford dictionaries it is a device used for recording or transmitting videos to a monitor.

1.2.2 Software

Unlike the hardware, which represents the physical aspect of computer and related devices, software refers to the various kinds of programmes used to operate those devices such as the internet, the operating system (OS), and Microsoft tools including Word, PowerPoint and so on. The Cambridge English dictionary has defined the term Software as the instructions that control what a computer does .i.e. computer programmes.

✓ **Internet**

It refers to the most dominated tool used in the whole world; it has filled a very crucial part of our social life due to its significant role in communicating and obtaining the various kinds of information. It is defined by the Oxford Dictionaries as "a global computer network providing a variety of information and communication facilities, consisting of interconnected networks using standardized communication protocols". Thus, the different favours offered by the Internet contribute in making it the most dominated tool and source of information.

✓ **The Operating System (OS)**

The operating system (OS) is the most important programme in the computer because it allows running other applications and software. Examples for Operating Systems include Android, Mac, Linux, and Microsoft Windows. Silberschatz et al (2005, p.3) define the

Operating System as "a programme that manages the computer hardware. It also provides a basis for application programmes and acts as an intermediary between the computer user and the computer hardware". Operating systems are extremely needed and important, in this sense, it has been reported that the Operating System is very crucial in solving the problem of creating a usable computing system in a reasonable way. Since the hardware alone is not easy to use, application and programmes are developed in order to make solving user problems easier Silberschatz et al (2005). Yet, the availability of the different types of the operating system still a questionable issue, due to the lack of the needed equipment and the training teachers as well.

✓ **Microsoft Word**

Microsoft Word is a very common application to work on any computer. It refers to the word processing programme, which is made by the computer company Microsoft; it is defined by the Cambridge English dictionary as the Disk Operating System: a type of operating system for computers. Microsoft Word helps the user to type and save the different documents, draw tables and graphs and make different formats depends on the need of the user.

✓ **Microsoft PowerPoint**

It is a programme developed by Microsoft Office; it gives the users the opportunity to design an interactive presentation through the use of images, videos, sounds, charts, slides and so on. It has been defined by the English Oxford dictionary as a software package designed to create electronic presentations consisting of a series of separate pages or slides.

1.3 The Significance of ICT in Language Teaching

ICT is dominating every single domain in our lives, including education; namely, the foreign language teaching in which ICT plays a significant role, which is manifested in enhancing the learners' learning, making learners more interacted and motivated, and saving time and energy for teachers as well.

Condie et al (2007, p.22) state that "Other benefits have been identified including motivation and engagement, independent learning and autonomy and key or core skills such as collaborative learning and communication, all of which can contribute to improve knowledge, understanding, and skills. This can, in turn, have an impact upon attainment". The quotation shows that the use of ICT in schools has a positive impact on the teaching and learning process mainly represented in motivation, collaboration, autonomy, and interaction. As he mentioned

later on that the use of ICT is extremely effective when it is linked directly to curriculum objectives and specific concepts and skills, becoming an integral part of the learning experience.

Hence, the integration of technology and ICT in foreign language teaching with the selection of the best tools and the consideration of the learners learning goals would have a positive impact on the learning process.

1.4 E-Learning

Recently, many strategies and types of learning have been incorporated far away from the ancient traditional methods; namely those types of learning which are based on the use of technology such as E-learning. We refer by the E-learning to the distance learning through the use of electronic and technological learning. E-learning includes several types such as blended learning, web-based learning and flipped learning.

1.4.1 Blended Learning

Blended learning is a composition of both classical and modern methods of learning. Andrew Kitchenham Demonstrates in his book entitled "Blended Learning across Disciplines" that blended learning is based on the courses in which both traditional classroom and online methods are employed to deliver instructional content and interaction. As he adds that blended learning is considered to be one of the most popular choices for learners due to its flexibility and the convenience of an online course while retaining the benefits of the face-to-face classroom experience (2011). In this respect, the use of blended learning as a teaching strategy may offer a number of advantages.

1.4.1.1 The Advantages of Blended Learning

We believe that the use of blended learning as a modern teaching approach has positively influenced the field of education, offering a number of benefits that may facilitate the learning process. Those benefits are listed by Wilson and Smilanich (2005). According to them, blended learning can be helpful for the widened reach of training, which is a single training method that limits the reach of a training programme in some manner. Furthermore, the ease of implementation, which ensures that training has been effectively designed to meet the learners' needs. Moreover, blended learning is an economical approach that offers a variety of learning solutions to increase the effectiveness of a training programme while reducing or controlling costs at the same time. Last but not least, he mentioned that blended learning is effective in meeting the different and diverse needs of learners.

1.4.2 Flipped Classrooms

The flipped classroom is a teaching method, which is based on the combination between online learning in which lectures are delivered for the learner in form of videos, and the class learning in which activities and tasks are done. Bergman and Sams (2012) note, "Basically the concept of a flipped class is this: that which is traditionally done in class is now done at home, and that which is traditionally done as homework is now completed in class" (p, 13). The quote implies that the flipped learning has inverted the way of delivering lectures through the use of online learning, in which learners receive the theoretical information at home in form of videos meanwhile they practice in class, in contrast to the traditional method in which learners receive theoretical part in class and deal with the practical one at home.

1.4.2.1 The Advantages of Flipped Classroom

As any teaching method, the flipped classroom has its advantages and challenges as well, in this vein; Bergmann and Sams have taken the great part in highlighting the benefits of the flipped classroom as a teaching method, and the main important benefits are demonstrated on the following:

✓ Students Get Help on Difficult Topics

In the flipped classroom the learners have the chance to be helped by the teacher. It has been pointed out that since the application of what learners have seen in the lecture is done in class; whenever they struggle the teacher will be there to help them. (Bergmann & Sams, 2014). Hence, unlike the traditional method in which applications are done at home without any assistance, which inhibits them to complete their homework or leads to giving up or cheating, the flipped classroom provides learners with teachers' help. As a consequence, they become more motivated and engaged.

✓ Teacher-Student Interaction Is Enhanced

We believe that in the traditional method the interaction of the teacher with his learners is mostly limited. In this vein, (Bergmann & Sams, 2014) assume that the role of the teacher is to deliver the content of the lecture which makes him stand on the front of the class, speaking, presenting and explaining the lesson. As a result, the interaction of teacher-student seems to be neglected. However, in the flipped classroom the teacher is interacting with learners because they are practicing, which requires the guidance of the teacher. Thus, the teacher takes the opportunity to talk to every student in the class in order to correct tasks and give feedback.

✓ It Helps When the Teacher Is Absent

The flipped classroom is extremely helpful in the teachers' absentees. (Bergmann & Sams, 2014) state that whenever the teacher is absent, it would be useful to deliver his lecture online in form of video in order to prevent learners from missing the lecture. In other words, the teachers' absentees are no more an excuse for the tardiness in the delivered lectures.

✓ It Creates an Atmosphere of Learning

Since the flipped classroom guarantees the teacher-student interaction, the classroom atmosphere is described as a learning atmosphere rather than a teaching one, which enables learners to take charge of their own learning and to be more active learners (Bergmann & Sams, 2014). Thus, the appropriate classroom atmosphere which encourages learners to learn can be reinforced by the use of the flipped classroom.

1.4.3 Web-Based Learning

Web-based learning is a type of distance learning based on delivering online courses, which can be extremely significant to fit the student's needs; especially those who had not time and means to assist classes regularly. Web-based learning had been defined by (Mckimm, et al., 2014, p.870) as "Web-based learning is often called online learning or e-learning because it includes online course content. Discussion forums via email, videoconferencing, and live lectures (video streaming) are possible through the web". This latter implies that the web-based learning is a teaching strategy, considered to be a type of e-learning in which both the core of lecture and discussions are done online; either through emails or online videos.

1.4.3.1 Advantages of Web-Based Learning

Since the web-based learning becomes widely used as a teaching strategy, it would have a number of benefits with no doubt. As many scholars stated, web-based learning is an effective learning strategy that helps to overcome distance problems; it facilitates teaching learners whether they live in the same city or in different cities (Cook, 2007). Moreover, web-based learning can foster learners' autonomy and encourage them to be more independent and active learners. Thus, it enhances their critical thinking and decision making as well (Mckimm et al; 2003). In addition, (Arkorful, 2014) demonstrates that web-based learning is highly flexible in terms of time and place; the learning process can take place anytime and anywhere. As it enhances interaction. Thus through learners' discussions, barriers that hinder participation such as anxiety and fear are eliminated.

1.5 An Overview of Computer Assisted Language Learning CALL

In recent years, with the rapid development of science and technology, education has been evolved. Many technological tools and strategies have been emerged and used, this plays a significant role in enhancing the English foreign language teaching ELT. Namely, the use of computer, which has been dramatically increased in the last few decades, due to its great role as a facilitator tool; especially with the access of internet, which enables the teacher to "teach & reach" i.e. the teacher is able to teach in an effective way that helps learners to grasp information. Hence, the teacher's goals and objectives are reached.

1.5.1 A Brief History of Computer Assisted Language Learning CALL

The field of computer-assisted language learning has been evolved tremendously in a short time of period. (Browne et al; 2016) demonstrate that the development of CALL can be traced back in the 1960s, when linguists started to use computers for the sake of creating concordances for text analysis. Moreover, Barani (2013, p.532) states that "Although computers have been used since the first half of the 20th century, they were not used for educational purposes until the 1960s". The quote implies that the use of computers in different fields emerged in the first 20th century, but it was not incorporated in the field of education until the second half of the century. He adds that the 1970s witnessed the evolution of CALL for linguistic purposes. Later on, a spread of computers in both educational settings and homes was witnessed in the 1980s. Eventually, computers have been used and become an integral component in language teaching for more than three decades.

Warshauer and Healey (1998) argue that the use of computers in language instruction and teaching could be traced back to 1950s. As they add that, the history of CALL has shifted through three main stages behavioristic CALL, communicative CALL, and integrative CALL. Each time technology developed the beliefs about the facilitators of language acquisition change. Thus, instruction moves through the different stages to fit the level of technology (Warshauer & Healey, 1998). The three main stages can be summarized as follow:

- Behavioristic CALL: 1960s-1970s; in this stage, the computer was viewed as a device that allows individualized and personal pacing for learners. Moreover, it emphasized the repetitive language drills, which are based on the repetition of language forms "Drill & Practice". Hence, it sees the computer as an ideal tool for this repetition in order to achieve the language goals of learners.

- Communicative CALL: late 1970s-early 1980s; it stressed the use of simulations because they encourage discussion, as it encourages learners to work whether alone or with partner in order to discover the different language patterns and their meanings. The main core of this stage is to learn language forms implicitly rather than explicitly through the use of computer-based activities.

- Integrative CALL: late 1980s-early 1990s; it comes as a reaction to the communicative CALL. It has pointed out that the computer is still used in a disconnected way. Thus, a shift from the cognitive view to more social and socio-cognitive view is highly recommended. It emphasizes the learners' state of being exposed to authentic and everyday language in order to integrate the four skills reading, writing, speaking and listening, and to integrate technology more fully into the language learning process. As a result, learners are capable to use the different technological tools in the language learning process.

1.5.2 Definition of Computer-Assisted Language Learning CALL

The term of CALL is an abbreviation that stands for computer-assisted language learning, which is the ongoing of the learning process through the use of the computer. On this sense (Levy, 1997, p. 1) has defined it as "the search for and study of applications of the computer in language teaching and learning". The quotation implies that the computer is becoming a useful tool that we should find a way to study and understand its applications because of its integration in language teaching and learning. Moreover, O'Sullivan (1999) argues that the term CALL refers to the use of computers in order to promote educational learning. As he adds that this process includes: processing, presentation packages, guided drill and practice, tutor, simulation, problem-solving, games, multimedia CD-ROM, and internet applications such as e-mail, chat and the World Wide Web (WWW) for language learning purposes.

Ken Beatty (2010, p. 7) states that "a definition of CALL that accommodates its changing nature is any process in which a learner uses a computer and, as a result, improves his or her language". The given definition may be seen as a too broad and general one, but at least it targets the language teaching and learning through computer technologies.

Computer Assisted Language Learning has been described by (Gündüz, 2005) as the means of presenting, reinforcing and testing particular language items, where the rules and examples are presented to the learner firstly, then questions that test the learner's knowledge and understanding of the rules are given through computer which gives them appropriate feedback.

Despite the number of definitions given by different scholars, they all highlight the role of computer technologies as a tool-based in language teaching and learning.

1.5.3 Categories of Computer Assisted Language Learning

Since the computer has invaded most fields and areas, namely the educational field, we should be knowledgeable and aware of its different categories. According to Warschauer (2000, cited in Chaka, 2009), there are three main categories that characterize the CALL technologies: Mainframe Computer Technologies, PC Technologies, and Multimedia Networked Computer Technologies. Each of them has a different use and aims.

First, mainframe technology which refers to the central processing unit and primary memory of a computer (According to English Oxford Dictionary); However, Warschauer and Kern (2000) argue that Mainframe computer is based on the use of audio recording models as a repetitive drilling tool to enhance listening, spelling, and pronunciation. Second, PC technology, which is as a personal computer in which, you can download the software on. Warschauer and Kern (2000) state that PC technologies focus on the use of different written and oral communicative activities, problem-solving, critical thinking and language games. Third, Multimedia Networked Computer Technologies, which refer to computer programmes, and products that involve sound, pictures, and film, as well as text. Whereas Warschauer and Kern (2000) argue that Multimedia Networked Computer Technologies stress on the different activities delivered online such as internet chat rooms, online conferences, and e-mail interactive tasks. In brief, all the different categories of CALL have a role in fostering and facilitating the teaching/learning process.

1.6 Benefits of Using Computer Assisted Language Learning

We believe that the use of CALL in the teaching/learning process is extremely beneficial for both learners and teachers. Hence, we can find many educators and scholars emphasize the use of computers and web-based learning to improve the learning process. Some of those benefits can be stated as follows.

1.6.1 Lecture Comprehension

We believe that the main aim of learning is to reach certain goals and achievements. Hence, those achievements are considered as the output of the learning process. However, we can never have output without an input; the input here can be given in forms of lectures, which are generally delivered in the classroom by the teacher. Therefore, good quality of input leads to a

better output i.e. if the learners are well grasping the information delivered by the teacher, they will reach their goals with no doubt, and here lays the role of the lecture comprehension.

In this vein, Boulenouar (2013, p.211) points out "Understanding how lectures are understood can not only offer suitable ways to persuade EFL hearers to focus on lectures but also show content lecturers in how to give their lectures to ensure best possible comprehension". To say that, in order to guarantee the learners' lecture comprehension, teachers should understand how lectures have been understood by learners, which may help them to modify the content of lectures or even the way of delivering the lecture.

Since the teacher has got a great responsibility to make learners comprehend lectures, various strategies have been used by him in order to improve his delivery of information. One of those strategies is the use of technology in class, namely the computer. Moreover, Hsu (1994) suggests that a computer is extremely a beneficial tool in second/foreign language teaching, due to the various comprehension tools it offers to L2 learner which help him to modify the input he receives to aid his comprehension. Those tools could be pictures, a dictionary, clear sounds or even repetitions.

1.6.2 Motivation and Interest

Obviously, motivation has a great role in controlling the learners' learning process; a motivated learner has the desire to learn, while a demotivated one may obstacle the teachers' work. However, we can see that motivation depends greatly on the environment of learning. Connell et al (1991, p.14) state that "…before your pupils can work effectively you must do your best to provide them with a comfortable and safe environment". That is to say, the comfortable environment that helps learners and leads to effective learning is the teacher's responsibility. Hence, the teacher should use different techniques in order to improve his learning environment, one of those techniques is the use of technological tools, and namely, the computer-assisted language learning.

In this vein, Zarei and Hashemipour (2015) suggest that the use of the computer-assisted language learning as a teaching strategy may enhance the learners' motivation and interest because it provides learners with an enjoyable and more authentic learning situation, which gives them an additional chance for success and learning. Moreover, (Shirani, 2013) claims that, employing the computer in the second/ foreign language learning may provide learners with different strategies that help in motivating and giving them a comfortable learning

environment through providing them with different activities that allow them to work with their own speed, time, styles and strategies of learning.

1.6.3 Learners' Autonomy

The student's ability to learn independently is extremely vital in achieving the academic goals; learners need to take responsibility for their learning, to be autonomous, and to develop their critical thinking. Thus, fostering the learners' autonomy should be an important goal in the educational system. In this regard, (Ward, 2003) highlights the role of computer-assisted language learning in enhancing the learners' autonomy. He claims that the application of computer-assisted language learning in the teaching/learning process helps the learners in a great way to be effective language learners by themselves and to be autonomous in their learning, through certain templates provided by the CALL materials that contain a number of tips and strategies. To say that, enhancing the learner's autonomy is one of the main benefits offered by the application of CALL programmes.

1.6.4 Attitude

Learners' attitudes towards the target language can greatly affect their academic achievements and language proficiency. The beliefs they acquire and develop towards language learning can be either positive or negative. Thus, learners' attitudes can facilitate the learning process or they can impede it as well. In this regard Oroujlou and Vahedi (2011, p.997) mention "After all, it is the student's good or poor attitude that makes life easy or difficult in the foreign language classroom". The quote confirms our previous assumption, in terms of depending the success or failure of the language learning on the learners' positive or negative attitudes.

Eventually, one of the main benefits of CALL application in the classroom is that it encourages the learners' positive attitudes towards learning. Since most learners are living the digital era, the use of CALL would be very effective to foster their learning.

1.6.5 Immediate Feedback

We believe that the student's achievement can be highly improved by the immediate feedback, which can be defined as the information or reactions to a product whether a person's performance or a task, this information can be used as a basis for improvement (English Oxford dictionary). According to Gagne (1988), the immediate feedback can be also considered as a kind of reinforcement, because when learners are told about their correctness they will feel more motivated and proud; consequently, they will do their best to improve their achievements.

However, nowadays with the incorporation of technology in class, Computer has got the ability to provide learners with immediate feedback.

(Brown, 1997) mentions that the immediate feedback given by CALL encourages the learners to be more motivated while the delayed feedback reduces the student's interest. Moreover, Ebyary (2010) claims that the immediate feedback given by the teacher could not be effective anymore, especially with large number of learners. Thus, the use of computer applications "intelligent feedback" could be used instead of the other sources of feedback.

1.7 Challenges of Using CALL Programme

Although the various benefits of the use of CALL in language teaching/learning, it still has its dark side, which appears in a number of limitations and disadvantages. Some of those disadvantages could be stated as follows.

1.7.1 Lack of Resources

The application of CALL programmes in EFL contexts is facing the problem of resources' lack. Therefore, it is not possible for all EFL communities to afford enough computers; it tends to be money consuming. In this vein, (Ward, 2003) claims that most EFL communities have very limited financial resources, which do not permit them to avail the access of computers and internet without any external interference, because computers consume electricity, as it is costing to afford enough computers for learners. As a matter of fact, the lack of resources is considered as a serious problem in the Algerian universities, which may impede the student's learning process and obstacle their comprehension of the lecture because some courses require the availability of certain equipment. Moreover, the lack of the needed equipment is a challenge for the teachers as well, in terms of delivering the lecture and ensuring the leaner's comprehension with a very limited and traditional way.

1.7.2 Lack of Trained Teachers

The use of Computer Assisted Language Learning in teaching is not as simple as it looks like; the process requires specific skills and knowledge about computer technologies. Thus, the teacher should have prior experience in using the computer, as he should be familiar with the CALL programmes in order to be well prepared for teaching the aspect and to be self-confident. In this regard, Roblyer (2006) states that the use of CALL programmes would be helpful and beneficial only for those who master the use of computer technologies. Therefore, teachers

should be familiar enough with the computer skills before the application of CALL in EFL classes.

1.7.3 Lack of Equipment and Tools

Technology is increasingly incorporating the field of education. However, the more technology is incorporated in language teaching the more challenges appear. One important challenge is the lack of equipment and tools, namely the provision of computers, the internet, and the needed material. (Krysa, 1998, p.6) mentions "when large numbers of computers are in a room separate from classrooms, many learners get hands-on experience occasionally, but no one gets to use the computer in a truly authentic way". Krysa suggests that computers are used effectively when they are available all the time or at least in the needed time rather than putting them in a separate class, which may impede the learners' learning and consume time if the lab is closed or is not available.

Another challenge of CALL implementation is choosing the right software. In this regard, (Brown, 2004) states that after the teacher's decision about whether to use the software in learning, the turn comes to the choice of the appropriate one. That is to say, software and computer programmes should be carefully chosen by the teacher in terms of appropriateness, as they should be evaluated and tested before they will have been selected.

1.7.4 Cultural Acceptability

One of the challenges faced by the use of computer-assisted language learning in EFL classrooms is the cultural acceptability; some communities have certain beliefs and attitudes towards their own cultures, which lead them to refuse the use of CALL in education. In a similar vein, Ward (2003) states that the use of CALL materials in EFL classrooms should be acceptable and appropriate for the speakers of that community. Because some of them refuse to share their culture or accept other's culture such as the act of sharing pictures or recordings of dead people, because of their cultural reservations such as taboos, races and so on. Moreover (Márquez et al; 1994) mention that teachers should be careful in the application of CALL in their classrooms where we can find a cultural diversity, in terms of being aware of the cultural differences of their learners, because some acts are accepted by some learners while they are refused and considered as an offense by others.

1.8 CALL and Corrective Feedback

The dilemma of error correction in foreign/second language acquisition has always been argued, whether to correct and guide learners or not? Where and when do we have to correct them? How do we correct them? And in which forms correction is given?

Some schools such as behaviorism are very strict when it comes to errors, they do not permit committing errors and they consider them as taboos that should be immediately corrected because they think that errors may impede the learning process (Richards & Rodgers, 2001). However, other schools such as cognitivism are more tolerated with errors; because they consider them as a hint of active learning and progression (Yule, 2010). Based on this assumption, it has been asserted that the corrective feedback is highly beneficial for learners' learning in order to improve their achievement because it draws their attention to the errors made by them as it provides them with a helpful correction (Sauro, 2009). Corrective feedback has different types; in this vein, Lyster and Ranta (1997) distinguish six different types which are as follows:

• Explicit Error Correction: in which errors are clearly stated by the teacher. For example, this term is used incorrectly.

• Metalinguistic Feedback: in which errors are not clearly stated, but in the form of comment, question or information related to the error. For example, is it correct to say that?

• Elicitations: The teachers elicit the correct form from the student himself, by asking him questions or asking for reformulation. For example, how do we call the apple in French?

• Repetitions: it is based on the repetition of the incorrect form in order to draw the learner's attention using a specific intonation. For example, we have saw..saw?

• Recasts: implicit and indirect indication of the error through the reformulation of the incorrect part.

• Clarification Request: using some kinds of phrases such as: "excuse me!" Or "I cannot understand", which indicates that the message could not be interpreted by the teacher.

However, the source of corrective feedback has been changed; the teacher is no more the only source of correction, but other sources appeared namely the computer. Basiron (2008, p.192) mentions that "CALL systems have provided a number of advantages for language learning such as their ability to provide consistent and flexible corrective feedback during the

learning process". That is to say, one of the main advantages of the computer-assisted language learning programmes is the corrective feedback offered to learners in order to guide them, correct their grammatical errors, and indicates what is inappropriate in the target language.

Moreover, the corrective feedback provided by the CALL programmes has shifted from the traditional computer feedback to intelligent computer feedback. In this vein, Nagata and Swisher (1995) assert that the traditional computer feedback is different from the intelligent one in terms of that the former is more limited; it just indicates the error or the missing word without any explanation. However, the intelligent one provides the learner with additional information about the nature of the error and gives more suggestions to correct the error. Therefore, the intelligent computer feedback is more effective than the traditional one, because it improves the learners' production and contributes in the enhancement of L2 learning.

To sum up, no one can deny the important role of corrective feedback in facilitating the process of foreign/second language acquisition. However, particular attention should be paid to the role of corrective feedback in facilitating the lecture comprehension for the learners. Since the core of the lecture is based on the feedback of the teacher, his corrective feedback would play a great role in the learners' comprehension process.

1.9 Computer-Assisted Language Learning and Lecture Comprehension

The issue of computer-assisted language learning has received a great amount of attention in the last few decades, due to its domination in most fields, especially in the educational one. Jiang (2008, p.108) states "CALL makes language learning and teaching flexible. Active videos, colourful pictures and graphs make learners exciting and not bored of it". The quote implies the positive impact of CALL on the language teaching/learning, which encourages teachers to implement the CALL programmes as a teaching strategy to foster student' learning in general and student's comprehension of lectures more particularly.

Since the present generation is living the technological revolution, learners are highly affected by technological tools. Moreover, we have observed that some courses are witnessing a gap, because of the lack in the practical side; which makes learners understand lectures in a better way. Thus, the use of CALL would be a helpful and beneficial strategy in order to better the learners' comprehension of lectures.

Conclusion

To conclude, this chapter has clearly stated the significance of Computer Assisted Language Learning in enhancing the learner's comprehension of the lecture. Also, it is considered as a new teaching method that attracts the learner's attention, motivation and interest in order to grasp the delivered information. Moreover, the use of CALL as a teaching strategy encourages learners to be autonomous in their learning and provides them with a sense of responsibility that pushes them to achieve their goals. CALL implementation can develop the learner's positive attitudes toward learning through the enjoyment it adds to the classroom atmosphere. Furthermore, the computer programmes may offer immediate feedback for learners, which is not a time and energy consuming. Thus, in the next chapter we will highlight the role of the CALL implementations in order to facilitate and enhance the learning process and assure the comprehension of the lecture.

Chapter Two

Lecture

Comprehension

Chapter Two: Lecture Comprehension

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Introduction

This chapter tends to cover the issues related to lecture comprehension. First, it starts with the general overview of academic education, with a brief comparison between the past and present, in addition to the mention of the different traditional methods. Second, it highlights the different roles of the teacher and learners types. Third, it explains the comprehension process of lectures from a cognitive psychological view. Finally, it specifies the importance of lectures and their relation with academic achievement.

2.1 Education and Academia

The human's mental ability is considered as main quality which specifies human beings from other creatures. Thus, developing this ability in order to reach academic literacy is a must. Yet, we believe that the best way to develop mental ability is education, which paves our way and leads us to the right path. However, many people are not aware of the role of education in shaping successful people and productive members of society. Therefore, special attention should be paid to the importance of education in one's life. Moreover, education which refers to the act of learning, acquiring and gaining new information and skills is highly needed to secure one's future, find a job to earn money, and get respect from other people; as it contributes in forming a well-educated society and a strong country.

2.1.1 Definition of Academic Education

Education is a term that has no precise definition, it is understood and interpreted in different ways by different scholars. In this respect, the English Oxford dictionary defines education as the process of receiving or giving systematic instruction, especially at a school or university, as it can refer to the theory and practice of teaching.

However, a different definition is given by Sinclair (2014, p.4) "education is a deliberate effort made with a definite purpose to develop a certain amount of knowledge, skills, attitudes, and habits". According to Sinclair, education is a process in which the learner has to work hard and make efforts based on a specific purpose, which encourages and motivates him to develop his skills and knowledge; furthermore, Sinclair insists that education is not limited but a lifelong process which incorporates all the leaner's stages of learning.

Moreover, (Dewey, 2016) describes education as a changeable process that has been evolved throughout time, as he mentions that education is a life necessity which is considered as a reconstruction of the different individual experiences. Hence, after knowing the general

definition of education and getting familiarity with the term, we need to know its origins and history.

2.1.2 A Historical Overview of Education

Sinclair (2014) asserts that the origins of 'Education' have been argued, some historians suggest that the word of education is originated from the Latin word 'educare' which means ' to bring up' or 'to raise', while others assume that the term is derived from 'Educere' a Latin word which means 'to come out'.

Campbell & Sherington (2002, p.49) demonstrate "The history of education as an organised discipline is clearly associated with the rise of the modem teachers college, and the modern department, school or faculty of education within universities". The quote implies that the emersion of the different educational organisations such as colleges, schools and universities have strongly contributed in shaping education as an organized independent discipline.

However, we all know that education is a changeable and dynamic discipline, which evolves throughout time. This change is due to the leaner's change, the environment's change, culture's change, and most importantly the technological change. Thus, we are highly interested to make a simple comparison between educations in the past and present.

2.1.3 Education between the Past and the Present

No one can deny the different factors that have intervened in the educational field leading it to a whole change. Thus, the educational field has noticed a remarkable change between past and present, this change is whether in the system, conditions, or even the goals and objectives of education. In this sense, (Cristoba et al., 2017, p.2) insist "Changes in education are dynamic complex, and non-linear….the world seems to be moving rapidly due to technological innovations and increased interconnectedness among nations and cultures, despite the persistence of gaps in educational outcomes between and within countries". The quote emphasizes the fact of education as being a changeable discipline, which has been developed due to technological evolution.

Yet, the student's diversity tends to be an important factor that has intervened in education. Though we all agree that learners have always been diverse whether in past or present, but this diversity is increasing throughout time. (United States Census Bureau, 2005) acknowledge that the present education has noticed a large language diversity, leaners speak different languages

but they are taught with a unified curriculum. To say that, though the same input that all learners receive, they have different capacities and levels in language learning.

Another factor which marks educational change is the use of technology. In this vein, Raju (2017, p.14) states "People use technology for learning, work and leisure activities. Computer use allows for better student time on task. The learners show increased attentiveness for longer lengths of time when learning through the use of technology". That is to say, the use of technology in education mainly the computer has positively affected the student's learning and contributed in facilitating the learning task, which is not the case in the past.

Furthermore, the shift of education from the teacher-centred approach to the learner-centred approach is considered to be a main change in the educational system. Learners are taking charge of their own learning and becoming autonomous, also, they are regarded as the center of the learning process, and that is to say, programme and syllabus are design based on the learners' needs. In this respect, (Duckworth et al; 2009) explain that in the traditional classrooms where the applied approach was the teacher-centred one, leaners were passive because teachers make all decisions, so they become recipients of information only. In contrast, in the learner centred approach learners become active, engaged and involved. Although the comparison of education between past and present may incorporate many other factors, we tended to mention the most important ones.

2.2 Traditional Methods in Teaching English

Introductory, second and foreign language teaching is neither an easy task to master nor a random choice of what and how learners will be taught, but it is mainly based on certain conventions and systems that guide the teacher and provide him with the what and how of the learning process. Those conventions are the different teaching methods that have extremely contributed in the variegation of the pedagogy in order to please all the teaching/learning styles and strategies. Thus, the main teaching methods that are going to be discussed in this section are: The Grammar Translation Method, The Direct Method, and The Audio-lingual Method.

2.2.1 The Grammar Translation Method

The grammar translation method or the classical method as it is also called is mainly based on translation as its name dictates; the teacher gives a word-by-word translation into the student's mother tongue during his lectures. However, learners are supposed to translate sentences from their mother tongue to English taking into consideration the grammar rules

(Manjula, 2017). Yet, (Freeman & Anderson, 2011) confirm that the Grammar Translation Method is not a new approach to teaching, but it is has been used long ago by many teachers.

Moreover, (Freeman & Anderson, 2011) advocate that the main focus of the translation method was the target language. As it highlights the role of the grammar of target language in order to get familiarity with the grammar of native language .i.e. grammar is taught deductively. Furthermore, it gives an extreme emphasis on reading and writing skills while it ignores speaking and listening ones. As it allows the use of native language while learning the target one.

However, the translation method has been criticized by a number of teachers and scholars. (Manjula, 2017) assumes that the grammar-translation method has completely ignored the speaking skill, which makes learners learn articulation and intonation incorrectly. Also according to him the way that this method is based on the literal translation impedes learners to get the exact and actual meaning.

2.2.2 The Direct Method

Due to the number of gaps mentioned by the critics of the translation method, there was an important need to call for applying another teaching method, which has been called the Direct Method. We believe that the direct method came as a reaction to the previous method in order to fill the gaps. In this respect, Freeman & Anderson (2011) advocate that the direct method has been used by many teachers a long ago, it was not new. However, the goal behind its use has given it another version i.e. it has been revived. Moreover, they insist that unlike the translation method, the direct method tends to fill the gap of using the target language communicatively.

According to (Freeman & Anderson, 2011), the direct method as its name suggested it focuses on conveying the meaning directly in the target language through the use of visual aids in order to avoid the use of the student's native language because translation is forbidden. Furthermore, grammar in the direct method is taught implicitly in an inductive way, also it emphasizes the role of speaking and listening skills in learning the language.

However, like any teaching method, the direct one had its weaknesses. According to (Manjula, 2017) the direct method needs competent teachers because if they were not the method is no more successful. Moreover, the direct method may be a money consumer since it is based on certain tools and aids, which are not available for all teachers. In addition, the direct method focuses on the oral skills ignoring reading and writing ones.

2.2.3 The Audio-lingual Method

Another teaching method that has been arisen in order to emphasize oral skill is the Audio-lingual Method. Accoutring to Freeman & Anderson (2011) both the direct method and Audio-lingual method emphasize on the oral skill. However, the direct method is based on the exposure to different situations that help in acquiring vocabulary and grammar, while the audio-lingual method is based on the army system which is based on drills. Which means learners tend to depend on repetition in order to memorize the vocabulary and grammar patterns.

Moreover, it has been clearly explained that the main goal of audio lingual-method is to develop native-like speaking ability. Thus, the use of L1 is not permitted. Furthermore, in audio-lingual method, there is no chance for mistakes because the method is mainly based on the behaviouristic theory of learning in which the belief is that errors impede learning (Manjula, 2017). Also, Freeman & Anderson (2011) assume that in the audio-lingual method the teacher has an important role, he is considered as the leader and model for learners because learners are supposed to listen and repeat the drills.

However, Manjula (2017) mentions the main pitfalls of the audio-lingual method as follows: First, the focus on the oral drill was exaggerated while writing was ignored. Next, the method is mainly based on repetition. Thus, there is no phase for creativity. Also, the audio-lingual method tends to be a teacher-dominated method which makes leaners in a passive role, as it gives much attention to the language form and neglects the meaning.

To conclude, the teaching methods mentioned above are the most popular and known ones. However, there exist other teaching methods such as the Bilingual Method, Suggestoppedia, The Silent Way and others. Yet, each method has its own principles and its view towards the teaching/learning process. As they all have merits and demerits, this leads us to say that there is no perfect teaching method, but there is a best-suited one which may be chosen according to the situation, learners' level and need, and the teacher's objectives of teaching as well.

2.3 Teacher's Roles and Learners Types

Generally, the learning process is based on three aspects: the teacher, the learner, and the subject to be learnt. However, the teacher's role tends to be more important because on one hand, the great responsibility he has in leading his classroom. On the other hand, the diversity of learner's types, level, styles and strategies, which create a challenge for the teacher to give his best in order to satisfy all the different types of learners.

2.3.1 Teacher's Roles

Due to the fact that the teacher is the main part of the learning process, a great responsibility is put on his shoulders. Thus, the teacher is a key for effective learning i.e. Education takes place if the teacher is competent and fulfil his role. (Harmer, 2001) demonstrates that among the roles played by the teacher we have: the teacher as a controller, organizer, assessor, prompter, participant, and resource.

- The Teacher as a Controller

We believe that the teacher's main role in the classroom is to control. Thus, the teacher should control the whole class, learners, and activities. He is the leader and the center of the classroom, he gives announcements instructions and explanations.

- As an Organiser

Another important role played by the teacher is to organise. It has to do with managing the classroom and making arrangement. The teacher in this role organises lectures and activities from the beginning till the end.

- As an Assessor

The teacher as an assessor assesses the learners' level, gives them feedback and grades them. Hence, it's a vital role that all teachers practice. However, learners should be dealt fairly and equally.

- As a Prompter

The teacher as a prompter should motivate learners in their learning. In this vein, (McDonough et al., 2013) point out that the teacher's role as prompter is extremely significant because he encourages the learners. That is to say, a motivated teacher can motivate and encourage learners to learn which leads to effective learning.

- As a Participant

Though the teacher's main role is to monitor and control students, teachers may participate in some tasks such as group work, play roles, and pair work. However, he should not participate in all activities.

- ■ As a Resource

   The teacher should always be ready and interfere in order to help students while doing their tasks because they consider him as the main source of their information. However, this role of teacher does not exist anymore because of the technological revolution. Thus, learners are relying on the internet as their main source rather than the teacher.

   To conclude, despite the variation and importance of the teacher's roles, many teachers do not know how to perform them, and still face difficulties in being competent teachers.

2.3.2 Learners Differences

As it has been mentioned before in section 2.3, the teacher has the challenge to perform his role effectively in the classroom because of the different obstacles he may face. One of those obstacles is the learner's differences. Obviously, the classroom is made-up on learners who are different from each other, the difference may appear in the student's level, age and sex, motivation and so on. However, the teacher should know how to deal with the learners individually while teaching the whole class.

- • Aptitude and Intelligence

Harmer (2001, p.85) points out "Some students are better at learning languages than others". That is to say, the degree of intelligence and aptitude differs from one student to another. Yet, the aptitude can be measured through the different tests, namely TOEFL & IELTS that are estimated by Zafar & Meenakshi (2012) as being the most popular tests of English second language learning which have been used for a considerable amount of time.

- • Age and Sex

(Harmer, 2001) asserts that the learner's age plays a vital role in his learning because people of different ages have different needs and competencies. Thus, the people of a young age learn faster than adult people, while adults are more reasonable in their learning and focus on abstract thoughts. However, regarding the learners' gender. It has been shown that females are better language learners than males.

- • Motivation

Harmer insists that motivation is crucial for academic success because it pushes the individual to make efforts. Whether the intrinsic motivation (inside) or extrinsic motivation (outside) both are regarded as a desire and important factors to reach success. However, the

intrinsic motivation tends to be more beneficial because the impulse comes from the learner himself. Eventually, there exist other differences. Namely, the learner's styles and strategies that we are going to discuss in the next point.

2.3.3 Learning Styles

Since learners are different from each other, they do not learn in the same way. Hence, they have different styles of learning, which are personal i.e. each person has his own tendencies in learning. Some of them are auditory learners, others are visual, while others are kinaesthetic.

According to (Wilfrid Laurier, 2008)

- Auditory learners: are those who learn through listening. They are highly engaged in group discussions, as they mainly depend on the listening skill through paying attention to the speaker's tone.

- Visual learners: are those who learn through the vision, they use diagrams, pictures, graphs and so on, they use colours and highlight important information, as they use symbols while taking notes.

- Kinaesthetic learners: are those who learn through doing. All the senses are including in this type. This type of learning requires the availability of labs and tutorial sessions in order to practice.

2.3.4 Learning Strategies

Learning strategies are known as the behaviours or techniques used by the learner in order to enhance his learning. Moreover, (Scarcella & Oxford, 1992) assert that the learning strategy is chosen according to the learning style. The main learning strategies are explained by (Rebecca, 2003):

- Cognitive strategy: this strategy is based on reasoning, analysis, synthesis, note taking and outlining. Due to this strategy, the learner becomes able to manipulate language material in a direct way.

- Metacognitive strategy: it identifies the learner's style preferences and needs, generally it is employed to manage the learning process as a whole.

- Affective strategy: this strategy incorporates one's mood, feelings, and level of anxiety, as it helps the learners' progress to reach proficiency.

- Social strategy: it encourages the learners to interact with others, whether through asking for help, asking questions, or asking for clarification.

To conclude, the learner's styles and strategies are extremely helpful for the teacher in order to identify the differences between learners and to know how they prefer to learn. As a result, he would be able to organize his lecture according to their needs and achieve his goal.

2.4 Education and Cognitive Psychology

Recently, it has been remarked that the branch of cognitive psychology has gained an important role in the educational process. For more understanding, we start by defining cognitive psychology.

2.4.1 Definition of Cognitive Psychology

According to (R.Sternberg & K.Sternberg, 2009) cognitive psychology is defined as a branch of psychology that studies the human mental process. Namely, how do people think, perceive, remember and learn. Furthermore, the main components of cognitive psychology are generally: perception, attention; problem-solving, decision making, intelligence and judgement i.e. all aspects related to the mental process. In other words, the learner attends "attention" and gain information about the external world "learning", this information is stored in the memory by the brain, and used later on in order to solve problems, make decisions and so on.

Moreover, (Anderson, 2010, p.1) refers to the cognitive psychology as "it is the science of how the mind is organized to produce intelligent thought and how the mind is realized in the brain". Which means that cognitive psychology mainly focuses on how do people think and produce thoughts using their minds.

2.4.2 Approaches of Cognitive Psychology

According to (Wikibooks, 2013) the study of cognitive psychology includes four main approaches:

- The human experimental cognitive psychology: it is based on the assumption of making a scientific test for healthy beings "animals or human beings", in order to test their psychological abilities or processes and take results. This test is made in specializes laboratories.
- The computational cognitive science: it is based on modelling and making analogies between the human brain and computer. Thus, it involves creating models of human cognition by the computer in order to test the flexibility of information processing mechanism.

- The cognitive neuropsychology: it studies the brain activities of those who have cognitive impairment in brain-damaged patient.

- The cognitive neuroscience: it investigates the human cognition through the brain imagery i.e. it relates the human cognition to the brain structure obtained from brain imaging technique.

2.4.3 Educational Psychology

Educational psychology is one main branch of psychology which is basically concerned with human learning. Hence, (Kumar, n.d) defines it as a field of inquiry that combines two separate fields "education and psychology". As he refers to it as a distinct discipline with its own methods, theories, and techniques. Furthermore, the main focus of educational psychology is how do people teach and learn in a particular environment.

Moreover, educational psychology has been defined by Woolfolk (2005) as a discipline that focuses on teaching and learning processes; also he asserts that educational psychology is a separate discipline of learning which has its own theories besides to its reliance on the psychological theories as well.

Therefore, (Kumar, n.d) insists that the educational psychology is extremely important in the human learning process. In one hand, it helps in understanding the learner i.e. it provides the teacher with sufficient information about the learner and his needs. In the other hand, it helps in organising effective learning situations.

2.4.4 Student's Approach to Learning

Learners' approach to learning is simply a theory of learning that focuses mainly on how learners learn. However, (Duff & Mckinstry, 2007) assume that the need for conceptual and deeper forms of learning was behind the emergence of the SAL. The theory was developed by Marton & Saljo (1976) who claim that the relation between the student and learning is divided into two different approaches: deep approach and surface approach.

The two approaches are explained in ("*Teaching and Learning*," 1998) as follows:

- Deep approach: is mainly based on the transformation of ideas i.e. the information is received and understood, related to previous knowledge, then it is related to conclusions, and eventually the student becomes interested in the course content.

- Surface approach: is mainly based on the reproduction of information i.e. the student has no exact purpose of the study. Thus, he treats the information of the lecture as new ideas which are memorized routinely.

According to ("*Teaching and Learning*," 1998) other approaches emerged later on. Primarily, G. Pask who has developed the holistic approach in which learners have personal organization and focus on task in context, and serialists in which the learner look at details. Succeeded by the development of the strategic and achievement approaches which claim that organization and time management leads to better academic achievements

2.4.5 Cognitive Psychology and the Learning Process

Due to the complex nature of the learning process, many problems have arisen in the educational field. However, with the emersion of the study of psychology that focuses mainly on the human mind and behaviour the problems have been decreased, because the study provides new approaches of learning, namely the cognitive psychological one. This latter is basically interested in the mental process of learning. Hence, the study of cognitive psychology had a great effect on facilitating the student's learning process.

Therefore, (Cherry, 2012) acknowledges that cognitive psychology has been directly applied in education as one of the main learning approaches. This latter was a response to the behaviourism approach to learning. Cognitivists claim that the mental process is the main source of human behaviour, as they concentrate on what is going on the learner's mind and his internal ability such as motivation, thinking, attention, memory and so on, in addition to the analogy between the human mind and computers, which claims that our minds are information processors.

Moreover, (Mandler, 2002) stresses that cognitive psychology has a great influence on the instructional design and the learning process as a whole. First, it involves the learner in the learning process because learning depends on his mental abilities. Second, it helps in organising and sequencing the information through the use of cognitive strategies. Third, it encourages the learner to make a connection between what he has learnt and what he already knows through recalling.

To conclude, we can say that the study of cognitive psychology has a great contribution to the teaching-learning process, it enables the teacher to understand, predict and control the

learner's behaviours, understand the learner's differences and provides the learner with a detailed explanation of how learning occurs in the mind.

2.5 Lecture Comprehension

Essentially, lecture comprehension in the classroom is a challenging matter for EFL learners. As a matter of fact, most of the learners face difficulties in constructing the delivered information in the classroom. Yet, different reasons can be behind the student's problem of comprehension. Thus, due to the significant role of the classroom lectures as being the prime means of information transition, course delivering, and lecture comprehension we start by giving the exact meaning of a classroom lecture.

2.5.1 Definition of a Lecture

Delivering lectures is considered as one of the major methods of teaching in order to transmit knowledge for learners. In this regard, Sutherland (1976, p.30) defines it as a "continuing oral presentation of information and ideas by the professor; it is presumably a synthesis of his own reading, research. And experiences, interpreted in light of his own insights". Sutherland (1976) tends to highlight the role of the lecturer in making his efforts, researching, and collecting information that will be interpreted in his own vision and style, then presented to his learners.

Moreover, the English Merriam Webster dictionary demonstrates that a lecture is a formal reproof or a discourse given before an audience or class especially for instruction. After having a clear image of the sense of a lecture, we need to discuss its main importance as a method in the teaching/learning process. Thus, we believe that the role of the teacher appears in forming and delivering a comprehensive lecture, through collecting reliable information and presenting them to learners with his own style and a simplified manner.

2.5.2 The Importance of Lectures in Education

We believe that a well-delivered lecture may offer a number of strengths that encourage learners to attend their lectures. According to Vavoulis (1964) cited in Sutherland (1976) the advantages of lecturing as a teaching method can be stated as follows:

- It is an economical and effective method that permits to deliver the maximum amount of information to a large number of learners.
- It vitalizes ideas that tend to be impersonal on printed papers.

- It allows clarifications as it focuses on the important points of the lecture.
- It is a dynamic method that can be adapted according to the needs, interest and student's knowledge.
- It offers current information, as it allows to introduce new topics.
- And most importantly, it gives the professor the opportunity to profess.

Consequently, we insist that lecturing is one of the most beneficial methods of teachings. Due to the number of facilities it provides. Namely, the economy of time, vitalization of ideas, clarification checks, and being a dynamic method of teaching.

2.5.3 Comprehension Process

Once the teacher does his best in order to deliver his lecture effectively, the turn comes to learners who are supposed to understand and construct the teacher's delivered information through the comprehension process. Thus, we need to know what is meant by the comprehension process, and how this process does occur.

Basically, the English Cambridge dictionary defines comprehension as the ability to understand completely and be familiar with a situation, fact and so on. However, the comprehension process, in particular, tends to be a complex one that has been understood and explained by a number of ways. In this vein, Smith (1975) refers to comprehension as the act making sense and grasping the information mentally, as he adds that the term may refer to the act of relating the new experience to what is already known.

In order to know how comprehension occurs, we need to discuss its stages one by one. (Anderson, 2010) explains the comprehension stages as follows: Initially, when we talk about the comprehension process we are referring to the process of cognition that takes place in the human brain. Hence, in cognitive psychology, the process of cognition which leads to comprehension includes four main steps: perception, memorization, retrieval, and thinking.

According to Anderson (2010). Firstly, the input of information is taking by the learner through one of his sense organs whether the eyes in reading or ears in listening. Once he receives the input, he starts analysing its content and making sense of it, this is involved in the perception stage. This latter will lead to record the received input in the memory storage. After memorising the information it becomes possible to retrieve them for later use. The final stage is thinking which includes rearrangement and manipulation of the stored information.

2.5.4 Student's Problems of Comprehension

As we have mentioned previously in section 2.3, the teacher's role in the learning process is to deliver the lecture, while the student's role is to construct and comprehend the delivered lecture. However, the effectiveness of this procedure cannot be guaranteed in all cases. The process of comprehension can be broken down if the student is not able to comprehend i.e. he may face many problems that impede his comprehension of the lecture.

According to (Shehu, 2015), a common problem faced by EFL learners is reading comprehension. The student's poor comprehension is caused by many reasons. In this respect, Shehu (2015) makes a study in order to discover the main reading comprehension problems faced by learners. The results show that student's problems of reading are mainly caused by the inability to decode and spell words. Nevertheless, the study has asserted that even those who are good in spelling and decoding have problems of comprehension. Thus, the problems may be caused by the new vocabulary in the text which impedes learners to get the meaning. Also, the short memorization of the information which makes learners forget easily. Furthermore, the absence of the extensive reading which helps them to be familiar with the reading task. Finally, the type of text plays a vital role in facilitating the student's comprehension.

Another problem of comprehension faced by EFL learners is listening comprehension. Hence, Pourhosein & Banou (2016) summarize the main reasons behind this problem. Initially, the quality of record materials, mainly the sound quality which may have an impact in their listening comprehension. Second, the accent of the lecturer which is unfamiliar to learners may contribute in the reduction of the comprehension. Moreover, the length and speed of the listening tasks which makes learners lose concentration and control. Eventually, the use of strange and unknown vocabulary which demotivate the learners.

To conclude, far away from the listening and reading comprehension problems; we believe that one of the main reasons behind the student's comprehension problem of the lecture is the absence of the needed practice in some courses such as research methodology of second year learners in Mohamed Khider University of Biskra. However, this fact has been neglected, we could not find sufficient resources that adopt our view, but we tend to have a contribution to knowledge by adopting this serious problem faced in EFL classes.

2.6 Academic Achievement

Obviously, all learners have certain aims and goals to achieve through their learning. Hence, the student's efforts of trying to comprehend the delivered lectures are supported by inner energy which motivates them, this energy emerges in the needs of achieving their academic goals. Thus, we tend to tackle the issue of academic achievement as an important factor in learning and lecture comprehension.

2.6.1 Definition of Academic Achievement

As we believe, the general understanding of academic achievement is the outcomes resulted from the academic learning process. However, the English Oxford dictionary defines it as the level of schooling that a student has successfully completed and the ability to attain success in his studies. To say that, it is not a matter of the whole achieved outcomes but the successful ones.

Moreover, Bhagat (2013, p.55) refers to the academic achievement as "the extent to which a student, teacher or institution has achieved their educational goals…and it is commonly measured by examinations or continuous assessment". Which means that academic achievement is the accessed level of education by learners or teachers in order to achieve their academic goals, and measured by different forms of assessment.

2.6.2 Factors Affecting Academic Achievement

Due to the fact that formal education is seen as the main source of the learner's academic achievement, it has gained great importance in the teaching/learning process. Nevertheless, the student's will of achieving their goals may be affected by different factors. This latter plays a vital role in whether helping or impeding the leaners to reach their academic achievements.

According to Katanu (2008), the factors that may affect the student's academic achievement are as follows:

- Motivation: it is asserted that motivation can highly contribute in the academic achievement and success of learnrs. Thompson, 2004 (cited in Katanu, 2008) defines it as "motivation is the super highway to learning" (p.47). Due to its effectiveness in enhancing the student's learning, it has been considered as the main factor that positively affect the academic achievement.

- Self-efficacy: according to (Smith, 2001 cited in Katanu, 2008, p.48) self-efficacy is defined as "the belief or lack of belief in one's personal capability to master a situation". Thus, it refers to the one's self-confidence and willingness to master certain tasks which are highly needed in order to achieve the academic goals.

- Self-regulation: which guides learners and encourages them to build good learning attitudes such as self-confidence, educational awareness, control over learning, sense of responsibility and so on.

- Teaching/learning methods: the teacher's choice of the appropriate learning strategy plays a crucial role in fostering the student's academic education. Thus, the teacher should be aware enough about his learners' needs, what and how to teach them, and more importantly the provision of the needed equipment for certain courses.

As a conclusion, there exist other factors that influence academic achievement, but the most important ones are mentioned above. In addition, those factors tend to have a positive effect on academic achievement while the absence of them can negatively affect the student's achievement.

2.6.3 Relationship between Lecture Comprehension and Academic Achievement

To start with, no one can deny the importance of classroom learning in achieving the student's academic goals. As a consequence, the teacher has a great responsibility to manage his classroom and create an appropriate atmosphere of learning, so that learners feel comfortable and concentrate on the teacher's explanation. Yet, still the teacher's main responsibility is to deliver a comprehensive lecture that helps learners to achieve their academic goals.

Due to the strong relationship that exists between lecture comprehension and academic achievement, we assume that a well delivered and organized lecture can pave the way for positive academic achievement. Hence, Saeed (2012, p.828) demonstrates that "An effective lecturer must present concepts in an organized manner and the delivery must hold the learners' attention". In short, a well-organized lecture, presented in a coherent way and simplified manner will get the learners actively involved and motivated. This latter helps them to comprehend the delivered information and consequently, the learners will be able to achieve their academic goals.

In essence, lecture comprehension and academic achievement are extremely interrelated. The absence of the first leads to the lack of the last. For this reason, the teacher should be aware

of the appropriate way of teaching that helps learners to comprehend and achieve their academic goals.

2.6.4 Impact of Technology on Academic Achievement

Generally speaking, it has been noticed that the learning environments and conditions have been changed, also the leaners themselves and their styles of learning have been evolved. This deep change is due to the integration of technology in the educational field. Therefore, technology has strongly contributed in enhancing the teaching/learning process and support learners to reach advanced levels in their academic career.

In this respect, Díaz (2009) acknowledges that technology provides an authentic material for quick learning that helps learners to develop their learning strategies and enables the teacher to give specific instructions to individual learners, as it provides individualized interaction for learners. To say that, technology is a facilitator tool which helps learners to maximize their academic achievements.

Moreover, (Kapur, 2018) regards technology as a helping tool that improves student's skills and abilities in the academic concepts. Especially, with the internet availability that serves as an important source of information, consequently, the learners will have a better understanding of the lecture. Once the lecture is well understood and the information is grasped, the student becomes able to successfully achieve his academic goals.

All in all, no doubt that technology has extreme advantages in educational achievements. Nevertheless, it may have negative effects. Hence, great attention should be given to the appropriate use of the technological tools in classrooms and learning in general.

Conclusion

In the present chapter, we spotted the lights on certain points that may help in delivering lectures effectively and assuring the learner's comprehension. Namely, being aware of the learner's types and performing the appropriate role of teacher according to the situation, choosing the appropriate teaching method that satisfies the learner's needs, understanding how the comprehension process occurs in the mind through explaining the relation between the learning process and the cognitive psychology, and deciding about the objective to attain and achieve through the academic learning. As far as this subject is concerned, we moved to highlight the importance of lectures as a teaching method that allows delivering the maximum amount of information to a large number of learners in an economical way. And most

importantly, we tackled the main drawback that impedes the learner's comprehension of the lecture which is the lack of practice during lectures. Thus, dedicating more time to practice the theoretical knowledge, providing schools and universities with the needed equipment and being familiar with the use of technology in learning are highly recommended.

Chapter Three

Fieldwork and Data Analysis

Chapter Three: Fieldwork and Data Analysis

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General Conclusion

Introduction

The current chapter is dedicated for the analysis of the findings gained through the investigation of the Computer Assisted Language Learning (CALL) as an effective teaching strategy to foster students' comprehension of the research methodology course. Thus, the present chapter is divided into two sections, the first section is devoted for the theoretical background concerning our adopted research methodology. Starting with the research approach of the study, research strategy, and the data collection methods used in investigating the findings and accomplishing the study. Furthermore, we have accompanied our data collection tools with the aims and rationale behind using each of them. However, the second section is dedicated for the data analysis and interpretation. Since the fulfilment of our research requires the use of a set of data gathering tools in order to answer the raised questions and confirm the hypotheses which assume that students are struggling to comprehend the lectures of RM through a purely theoretical way. Thus, their comprehension of the research methodology course can be fostered through the use of CALL. Hence, our findings are based on observing the students' engagement, which is a sign of comprehension during their research methodology course and determining learners' attitudes towards the use of CALL. Therefore, we have selected three data gathering tools that are classroom observation, in order to have authentic and live data, focus group discussion with a sample of students who have experienced the CALL to determine their attitudes toward the strategy. In addition to the teachers' interview in order to get their thoughts and opinions about the CALL strategy.

3.1 Research Methodology

This section is devoted for the theoretical background concerning the research methodology we have opted for accomplishing the present study, it includes the research approach, research strategy, data collection tools, sampling technique, in addition to the data analysis and procedures.

3.1.1 Research Approach

The research approach that is known as the general plan which any researcher uses to organise his study is composed of three common research approaches a qualitative approach, a quantitative approach and a mixed method one which is a combination between the two. However, the choice of the best research approach is mainly based on the nature of research and the problem being solved (Kumar, 2011).

In the current chapter, our data was collected through the use of the qualitative approach. Since our findings are tending to describe the data obtained concerning the CALL programme, and the relationship between the lecture comprehension and the CALL strategy as well, our research would require the qualitative approach.

3.1.2 Research Strategy (ies)

A research strategy is a way of which the researcher makes sense of the problem stated, it is a plan and structure of the investigation. So, the research will go to obtain answers to research questions or problems. As it guides and helps the researcher in selecting the respondents, collecting information from them and analysing the collected information (Kumar, 2011). According to Kumar (2011), the research strategy is divided into two types; quantitative and qualitative one. The former is divided into three groups. This division is based on the number of contact with the study population, the reference period of study and the nature of the investigation. The first one which is based on the number of contact with respondents consists of cross-sectional studies, before-and-after studies, and longitudinal studies. While the second one consist of: retrospective; prospective; retrospective–prospective. Whereas, the third group consists of experimental; non-experimental; quasi- or semi-experimental. However, with regard to the qualitative strategy, it contains the case study, oral history, focus group/ group interviews, holistic research and other strategies.

In the present research, we opted for the case study as a research strategy. Our choice of such a strategy was based on certain reasons. First, the use of the case study provides us with a deep understanding of the problem being solved. Second, the use of the case study design allows the use of any data collection method. Third, since our conditions of conducting the research and the case that has been studied are formal, existing in a specific time and place, the use of the case study as a research design would be an adequate one.

3.1.3 Data Collection Methods

Data collection methods are mainly the process of using the different gathering tools in order to collect the needed information for the study. According to Kumar (2011), there exist different data gathering tools for both qualitative and quantitative kinds of researches. The former includes the unstructured observation, unstructured interview, and unstructured questionnaire. While the latter includes the structured interview, structured observation, and structured questionnaire, in addition to the different types of tests. Yet, the mixed method

approach includes a combination between types of data collection methods that embodies in the semi-structured observation, structured interview, and semi-structured questionnaire.

3.1.3.1 Classroom Observation

According to Kumar (2011), observation is one of the data gathering tools that permit to collect a live and primary data, it is a systematic and selective way of observing a phenomenon that occurs in a particular setting. As he adds that observation can be a participant or non-participant one, it depends on the researcher's participation and involvement in the given tasks and activities. Also, he mentions that there exist three types of observation: structured observation, unstructured, and semi-structured one. Each of them is adopted according to the situation and the nature of research as well.

In the present research, we have opted for the classroom observation as a data gathering tool in order to gather live data about the observed phenomenon. As well as, to observe the students attitudes' towards the integration of the new strategy in teaching RM course.

• **Aim (s)**

Our aim behind choosing the classroom observation as a data gathering tool was to evaluate the effectiveness of using computer-assisted language learning to foster the learners' comprehension. Moreover, the use of such tool helps us to gain a live and natural data concerning both ways of teaching; the traditional way and the integration of the CALL strategy. In addition, the classroom observation allows us to observe the students' attitudes towards the adopted teaching strategy of RM course which is a purely theoretical way, and their attitudes towards the use of CALL as well.

• **Structure and Content**

In order to collect the needed information for the study, we have conducted a classroom observation with second year students during their research methodology session. We have conducted three observational sessions in which we were passive (non-participant observer). However, the observation was based on a prepared checklist which consists of the items to be observed. The checklist was organised in a form of table that is composed of three columns; the first one includes the aspects to be observed, while the other two columns were devoted for the "Yes" and "No" answers i.e. next to each observed item we tick whether in the "Yes" columns or in the "No" one. In the top of the page (above the table) we mentioned the teacher's name,

the observer's name, the number of section and the date and time of the session. In addition, we have dedicated the other side of the page for further comments and observations.

Our observation checklist was composed of five items to be observed each of them consists of three aspects. The first item to be observed was the classroom atmosphere. While the second item was the students' engagement in the classroom. The third item was the time management of the session. In addition, the fourth item was the students' attitudes towards the use of CALL strategy. And the last item was the students' comprehension of the course.

- **Pilot and Validation**

In the present research, before the conduction of the classroom observation, we have made a pilot stage in which the prepared checklist was piloted in order to validate the content to reach the needed data. Thus, the aim of this stage is to check the correctness, relatedness, and appropriateness of the checklist items to be observed.

In the piloting phase, we attended one session with section one on February 6th, 2019 at 08:00. The session took place in its usual setting "amphitheatre". During the observation time, we were observing the teacher's way of presenting the lecture, the students' engagement, and their attitudes during lecturing. Moreover, we observed the items presented in the checklist. We have noticed that the classroom was well arranged, but there was not availability of the needed equipment that help the student to better comprehend. Furthermore, students were not engaged and demotivated. In addition, they were not taking the lecture seriously, they were making noise, though the small number of students that had attended that lecture. Also, they were not comprehending the most of explained points which mainly require practice or an explanation using a data show.

With the same regard, the supervisor has made some changes in the items of the checklist and changed some vocabularies such as "feel comfortable" instead of "feel at ease". And "provided" instead of "occupied". As he recommended another alternative for question three of rubric two, which is the observation of the students' participation instead of their interest. After the piloting stage, we have made some modifications and adjustments on the observation checklist that makes it more useful for reaching our objective.

- **Administration**

In order to fulfil this research, we have attended three observation sessions. The first two sessions took place within the traditional version of lecturing in the amphitheatre, which started

on February 13th, 2019 from 08:00 to 09:30 and lasted till February 20th, 2019 from 08:00 to 09:30. While the third session took place during the use of CALL strategy in lecturing, which was on March 3rd, 2019 from 11:20 to 12:50. Our observation was structured and direct, we have not relied on any recording device, but we have followed our personal classroom observation based on the checklist.

Each of the observational sessions took one hour and a half. During this time, we were sitting at the back of the amphitheatre in order to see all the students and observe their behaviours. Also, since our observation was a non-participant one, we were passive we did not intervene in any asked question by the teacher or a given activity.

3.1.3.2 Interview

The interview is one of the most common methods used to collect information from people, according to Monette et al (1986) cited in Kumar (2011), an interview is a data collection tool that involves an interviewer who asks questions and an interviewee who answers the questions, in addition to the answers' record by the interviewer. Furthermore, Kumar (2011) asserts that in the interview the researcher has the freedom to decide about the format, content, and questions to be asked. As he adds that, the interview could be a structured, unstructured, or semi-structured interview.

In the present research, we have used the unstructured interview designed for teachers. We have chosen the interview as a data collection tool to gather information from teachers concerning their thoughts about the adopted strategy of teaching RM in our university and to see their impressions towards the use of ICTs and CALL in teaching.

• **Aims (s)**

Our aims behind choosing the interview as a data collection tool are: First, the interview provides us with a live and more spontaneous information. Second, since our interview was designed for teachers, we have arranged five interviews with five different teachers. Thus, the number of our respondents was limited which makes it better to use an interview rather than a questionnaire. Third, the interview is not a time consuming especially if the respondents were limited and available, it helped in collecting the maximum of information concerning the use of CALL in enhancing the students' comprehension in a very limited time.

- **Structure and Content**

In the present research, we have used an interview which was composed of three rubrics. Each rubric consists of a number of questions. The first rubric was concerned with general information about our interviewee teachers and their careers. It consists of three questions. The second rubric was concerned with the RM course and the adopted method of teaching it which is purely theoretical. This rubric consists of five questions. While the third rubric was concerned with the use of ICTs and CALL in teaching which consists of six questions. At the end, the interview asks teachers if they want to add further comments and thanked them for their collaboration and time.

Furthermore, the interview was composed of closed-ended and open-ended questions. The former was used to have direct answers using yes or no. While the latter was used to have more information, details, deep views and justifications concerning the asked questions. The interviews were arranged separately in a duration of three days. In addition, the arranged interviews were recorded through mobile.

- **Pilot and Validation**

Before the use of the prepared questions for arranging the teacher's interviews. We pre-used them in a pilot stage in order to validate the content to get the required data. The aim of this stage was to check the questions' order and relatedness to our topic. Also to check their correctness and ambiguity. In this vein, we have sent the questions via email to one teacher considering him as an expert that we may benefit from his suggestions. We have sent the questions on April 20th. After three days we have received the feedback.

The teacher's feedback was mainly spotting the light on the use of ICTs. He suggested that our questions are focussing on the use of CALL in RM course, which makes us limited in interviewing the teachers. That is to say, in conducting the interviews we are required to select those teachers who mainly depend on the use of ICTs in their teaching in order to reach our objective of the interview. In addition, he suggested starting interviewing with general questions about the teacher's career rather than starting with direct questions concerned with our topic. Furthermore, the supervisor made the same remark concerning the use of ICTs. However, he suggested that even teachers who do not rely on ICTs in their teaching are useful for the study in order to know the reason behind their non-use of them. Moreover, the supervisor has made some changes in the questions as he asked for classifying questions into rubrics in

order to organize the feedback. Also, he corrected some mistakes in order to reveal ambiguity, as he added some questions that help in gaining our needed information.

- **Administration**

In the administration phase, the interview was arranged with five different teachers of Mohamed Khider University of Biskra that were mixed males and females. The arrangement of the interviews has taken place in different settings, most of them were in the teachers' offices in the faculty. As we have arranged one interview in the sports stadium of the university. The arrangement of the interviews lasted for three days, starting from April 28th, to April 30th. We have faced some problems with the teachers' availability because of the strikes at that period of time, but in the end, we were able to accomplish the interviews.

3.1.3.3 Focus Group Discussion

The Focus group discussion or focus group interview is defined by Dorney (2007, p.144) as "it involves a group format whereby an interviewer records the responses of a small group (usually 6-I2 members). This is obviously an economical way to gather a relatively large amount of qualitative data and therefore focus groups are used for a variety of purposes in many different fields". Thus, the focus group interview is nearly the same as the individual interview, but they differ in the format. While the individual interview involves the interviewer and one interviewee, the focus group interview involves the interviewer and a group of people to be interviewed at the same time generally from 6 to 12 members.

In the current research, we opted for the focus group discussion as a data gathering tool. We chose the focus group in order to get the students' feedback concerning the way of teaching RM course and to get their impressions towards the integration of CALL. In addition to the live and spontaneous data that the focus group offers.

- **Aim(s)**

We have different aims behind our choice of the focus group discussion as a data collection tool. Initially, the focus group discussion is an economical way of gathering a large amount of qualitative data. Also, it provides us with a live and more spontaneous data which involves students in brainstorming in order to give their feedback, in addition, since our sample had seen a collective experience which is the integration of CALL, the use of the focus group would be an adequate one. Besides, the focus group is flexible in its nature which provides us with direct and rich information.

• **Structure and Content**

For the aim of collecting our needed data to reach the objective of the study, we tackled the focus group discussion in order to get the student's feedback about the studied phenomenon. Thus, we have arranged a group interview with a sample of eight English students at MKUB. Our sample involved students from section one and others from section two because our observation had taken place with both sections. Our focus group discussion was based on asking our prepared questions which are composed of two rubrics each rubric consists of a number of questions. Hence, the first rubric was concerned with the students' thoughts about the RM course and the adopted method of teaching that course which is mainly a theoretical way, this rubric consists of seven questions. While the second rubric was concerned with the students' attitudes and impressions towards the use of CALL in RM course, which includes six questions. At the end, we asked the students to add any further comments or suggestions and we thanked them before we concluded the discussion.

In addition, our focus group questions were composed of both direct questions that are answered by yes and no to have direct and clear answers. And indirect questions to have deep details about the studied phenomenon, arguments, justifications, and to give a room for students to show their ideas and express themselves.

• **Pilot and Validation**

Before the arrangement of the focus group discussion, we have passed through a piloting stage. In which we have pre-used the focus group questions with two students of the population. The aim of this stage was to validate the content of our questions, reveal the ambiguities that may the students face during the focus group discussion, and make slight changes in order to conduct clear and comprehensive questions that may be understood by all the students.

In this vein, our questions had been sent to two different students of the second year on April 3rd, via Facebook. We have asked the students to take time in answering them since our objective is to make them scan the questions carefully, they needed time. A day after we have received the students' answers to the focus group questions. Basically, the students did not face many difficulties in answering the questions, except some abbreviations that they did not comprehend, such as "CALL", even though the explanation was next to the used abbreviation. Also, one of the students stated that he did not experience the use of CALL. Thus, we concluded that only one section had experienced the practice. Therefore, based on the students' feedback we made slight changes on the questions, we accompanied each abbreviation with its

explanation, also we adjusted the first question which was including four questions at the same time. Moreover, we have added question three in rubric two which is concerned with the students' familiarity with the use of computers. As we have focused more on choosing the students of section two to participate in the focus group discussion since they have experienced the CALL strategy. In addition, the supervisor suggested breaking the questions into rubrics in order to have an organized data.

- **Administration**

Concerning the administration phase, it was supposed to arrange several group discussions, but due to certain reasons that were out of our choice that was not possible. Hence, we have arranged only one group discussion composed of eight students who belong to second year English department at UMKB. They were varied between males and females, as they were varied between students of sections one and those of section two. Moreover, due to the same reasons, the group interview had some special circumstances. Its arrangement was not face-to-face because of the unavailability of students in the university. Thus, the focus group discussion was arranged on May 5th, via internet in a group discussion of Facebook.

3.1.4 Research Sampling

Our selected population for the study was the second year students of English at UMKB. The reasons behind choosing the second year as a population for our study are: first, the research methodology is a new module for second year students that may permit as to observe and describe the main obstacles faced by second year students in learning the RM course. Second, L2 students (promotion of 2019) had the chance to experience the use of CALL in learning RM course that was the main reason behind our choice of the population. The third reason was due to the RM' teacher of L2, who was very helpful and collaborative with us.

From a population of approximately 450 students, we selected a sample of eight students that were chosen non-randomly in order to participate in the focus group discussion. However, concerning the classroom observation, all the L2 students were concerned because the observation sessions were with both sections of the second year.

3.1.4.1 Purposive Sampling

In the present research, we have opted for a purposive sampling technique because we are dealing with a qualitative study, which should have a sampling plan that lines up with the purposes of our the study .i.e. our study has certain purposes to reach which makes it worthy to

evolve the purposive sampling technique. In addition, our sample was chosen non-randomly to fit the criteria of our research because we aim to reach specific goals. Thus, the individuals of the population do not have equal chances to be selected. Thus, to reach the objective of our study we needed to adopt the purposive sampling.

3.1.5 Data Analysis and Procedures

After the data has been collected, the turn comes for the analysis and interpretation of the collected data. This process is considered as a research procedure that provides the researcher with steps to follow in order to reach the findings of the study. In the current study, we have adopted for the descriptive data analysis procedure in order to describe the data concerned with the relationship between the CALL and lecture comprehension. In addition to the measurement and analysis of the data gained from the arranged interviews and focus group discussion.

3.2. Results

This section is dedicated for the analysis and interpretation of the data gathered from the classroom observation, the teachers' interview, and the students' focus group discussion.

3.2.1 The Observation Process

In order to confirm our research hypotheses, we opted for the classroom observation as a data collection method to determine whether the use of Computer Assisted Language Learning helps the learners to comprehend lectures of methodology course or not. In order to carry out the observation, we used the checklist as a tool that helps to obtain valid data. In this regard, our checklist consists of five elements that should be observed. Furthermore, we used the prepared checklist within the traditional classroom in order to get enough data concerning the students' comprehension. As we have used it during the use of CALL to see whether it affects their comprehension of the lecture or not.

For our classroom observation, we selected second year EFL students in Mohamed Kheider University of Biskra to participate in the current research. We opted for the two sections of the second year to apply the classroom observation during their research methodology lecture in the traditional version of lecturing one time, and during the use of CALL as a teaching strategy another time. Moreover, the sample of our classroom observation was not limited; all the second year students of both sections were concerned. Yet, the selection of the second year as a representative to our work was due to the research methodology teacher's decision of using the CALL strategy with his students of the second year, in addition to his collaboration and help.

In order to fulfil this research, we attended three observation sessions. The first two sessions took place within the traditional version of lecturing in the amphitheatre, which started on February 13th, 2019 from 08:00 to 09:30 and lasted till February 20th, 2019 from 08:00 to 09:30. While the third session took place during the use of CALL strategy in lecturing, which was on March 3rd, 2019 from 11:20 to 12:50. Our observation was structured and direct, we have not relied on any recording device, but we have followed our personal classroom observation based on the checklist.

In the first session, the teacher relies on the ordinary way of teaching. He started the session with greeting the students, and then he started asking them a few questions about the previous session in order to check their comprehension and a sort of revision at the same time. Then, he started presenting the new lecture which was about the format in methodology "APA & MLA". However, it was clear enough that students are not understanding, they even asked for a practical example which makes the teacher obliged to use his own PC with a data show in order to clarify some points. Later on, he moved to explain the general norms of writing the introduction, as he dictates some points of writing a strong thesis statement. Eventually, he provided an example of a good thesis statement and explained it. At the end of the session, he gathered the attendance sheets and asked students to write the first draft of the introduction of their own research papers.

The second session was nearly the same as the first one, with a more focus on the practical side. After the general revision which has shown that students are memorizing the rules rather than understanding them, the teacher moved to dictate general requirements of the conclusion. Then, he dedicated the rest of the time to the students' questions and clarifications through the analysis of certain examples and correcting them.

In the other hand, the third session was supposed to take place in the laboratory in order to get access with the computers and observe the impact of the CALL in the learner's comprehension of the preceded lectures of research methodology. However, due to certain technical problems, it was not possible to work on the laboratory. Thus, the teacher asked the students to bring their own PCs to the lectures in the amphitheatre so that they can have some practice.

The third classroom observation session took place in the amphitheatre. Half of the session duration was devoted to the theoretical part of the lesson, while the rest of the time was dedicated for the practice using the students' own PCs. The teacher started the lecture in his

usual manner, revision, then presenting the new lecture, and asking some questions in order to check the student's comprehension. After that, the teacher asked students to form groups of four and five so that they all can have access to computers because the number of computers was very limited. Consequently, they had practiced the APA requirements and rules which they have seen theoretically in the previous sessions.

Part One: Traditional Version of Lecturing

This part is dedicated for analysing the classroom observation sessions we have attended in the traditional version of lecturing, which were purely theoretical. We have relied on the prepared checklist to observe the following five items, each item is analysed and discussed separately.

Item One: Classroom Atmosphere

During the first observational session, the physical setting was almost suitable because the session took place in the amphitheatre where the setting is well arranged. However, the students sitting in the back could not hear the teacher's explanation clearly because of the noise at the back. Moreover, the students were not satisfied with the delivered theoretical information and they asked for practice, which leads the teacher to use his own PC connected with the data show to clarify some points rapidly. This act was not sufficient to assure the leaner's comprehension because most of them were sitting far from the screen. Thus, they could not see clearly, in addition to the small size of the screen. Also, most of them are not familiar with the use of the computer. Hence, such a rapid explanation would make things more complex for them.

In the second session, the classroom was well arranged which makes students feel at ease while learning, taking notes and doing their activities. However, there was a lack of needed equipment. The teacher was explaining theoretically and dictating the lesson, with neither practice nor use of computer and data show. The session was a purely theoretical one.

Item Two: Students' Engagement

In both sessions, the complex nature of the delivered lectures in the research methodology which highly requires the access of computer makes the majority of the students demotivated, because they are not understanding. As they showed disinterest and a disengagement concerning the teacher's explanation, except some students sitting in the first two rows of the amphitheatre. Maybe because they are familiar with the use of the computer, or they could understand the explanation since they are sitting in the front. However, based on

what we have observed; most of the others were talking to each other making noise, and playing with mobiles.

Item Three: Time Management

In the traditional version of lecturing, the teacher allocated 15 minutes for warming up the students by asking them questions about the previous lecture as a sort of revision. Then, approximately 40 minutes were allocated for the theoretical presentation of the new lecture and explanation, during this time students were taking notes. After that, the teacher devotes 10 to 15 minutes to dictate the essential points of the lesson. The rest 20 minutes were dedicated for students to do the required tasks, correcting some of them by the teacher, gathering the attendance sheets and concluding the session. The following table indicates the different phases of the session, which are illustrated as follows:

Table 3.1 Time division of the session phases in the traditional version of lecturing

Phases of the session	Duration
Time allocated for warming up (asking questions about the previous lecture, revision, and distributing the attendance sheets).	15 min
Teacher talking time (theoretical presentation of the lecture and explanation).	40 min
Time allocated for dictation (the teacher dictates the essential point of the lecture).	10 -15 min
Time allocated for students (they do the required tasks individually).	20 min

The above table shows that the time allocated for the teacher is more than the time allocated for the students. Which is totally adequate because the session took place in the amphitheatre with the whole section. To say that, the session is a teacher-centred; he presents, explains, illustrates and so on. In addition, as we have stated previously the students tend to be disengaged which means that they are not even taking benefit from the time allocated for them. They do not do their tasks seriously.

Item Four: Students' Attitudes towards the Use of CALL

In the first two observation sessions, students were taught with the traditional version of lecturing. Which means there was not use for computers. However, students find it as an effective strategy in order to foster their comprehension because they face difficulties in comprehending such lectures theoretically. Hence, they asked for applying such a strategy, as they were highly interested in using CALL.

Item Five: Students' Comprehension of the Course

Basically, a comprehension problem was faced during the first and second observational sessions. Due to the nature of lectures that requires more practice and the students' unfamiliarity with APA requirements. Moreover, most of the students did not take a chance to answer the teacher's questions. Mainly, because they did not comprehend; while others gave incorrect answers. However, concerning the required activities; through our observation of students who were close to our setting position, activities were not done seriously at all. So, we could not know whether they did not comprehend in order to do the activity or they just do not want to do them. In addition, the teacher could not check and correct all of their answers because it is not possible to do that in amphitheatre with a whole section.

Part Two: The Use of CALL in Lecturing

The second part is dedicated for analysing the observational session we have attended during the integration of the CALL strategy, each observed item is discussed and analysed separately.

Item One: Classroom Atmosphere

During the third session, which was divided between a theoretical part and practical part, the physical setting was not suitable to the practice; the number of computers was very limited which obliged students to form groups of four and five. Mainly two students could see the screen and do the required task, while others could not. Also, they could not feel comfortable at all, the group was divided; one of the group was the head he does everything, while the two students who were next to him were only watching, we could not know if they are comprehending or not. Moreover, the rest of the group was chatting, playing and so on. Hence, the lack of needed equipment played an important role in the classroom atmosphere.

Item Two: Students' Engagement

During the session of practice, the students were mainly engaged. They wanted to try something new. Thus, they were motivated and interested, especially at the beginning. However, when the groups were formed most of them lost the desire and they become disengaged. Concerning the required tasks, they did not all get the chance to practice only the heads of groups. So, we believe that the disarrangement of the class and the limited number of computers were the reasons behind their demotivation.

Item Three: Time Management

In the third session, the teacher divided the time into two parts, the first one was allocated for the usual way of teaching which is based on the theoretical way, while the second one was allocated for practice using computers. Hence, the first 15minutes were allocated for warming up and revision by asking different questions and reviewing the previous information. Then, half an hour was dedicated for presenting the new lecture when the students were supposed to take notes from the teacher's explanation. After that, the rest of the session was devoted to the practice using their own PCs which was approximately half of the session i.e. 45 minutes devoted to practice. The first 20 minutes were devoted to follow the teacher's instructions in practicing, while the rest 25 minutes were dedicated for doing the required task given by the teacher.

Table 3.2 Time division of the session phases in the use of CALL in lecturing

Phases of The Session	Duration
Time allocated for warming up (asking questions about the previous lecture, revision, and distributing the attendance sheets).	15 min
Teacher talking time (theoretical presentation of the lecture and explanation).	30 min
Time allocated for practice following the teacher's instructions.	20 min
Time allocated for students (they do the required tasks in groups using computers).	25 min

The preceding data shows the time division of the session during the use of CALL as a sort of practice. The time division is different from the traditional session' time division because in this session half of the time is devoted for practice as follows:

❖ 5 min is devoted for students to organize themselves and form groups.

❖ 15 min allocated for practice (during that time the teacher tries to check the maximum of students' works and clarifies things for them).

❖ 20 min devoted for doing the required task.

Item Four: Students' Attitudes towards the Use of CALL

In the third session, there was use of computers in order to practice the theoretical information and foster the comprehension of students. Learners showed a positive behaviour towards the use of CALL because they have already asked for that. Also, they were highly interested; at least at the beginning of practice, as they find it an effective strategy to foster their comprehension because they were receiving theoretical information without knowing how to apply them, especially when it comes to APA and MLA guidelines.

Item Five: Students' Comprehension of the Course

During the use of computers in the third observational session, most students who were practicing started to comprehend and have a clear image of the APA guidelines. The teacher was moving from one group to another in order to check their comprehension and clarify things

whenever they face difficulties. They were doing the required activity but they were slowly, mainly because most of them are not familiar with the use of the computer. However, we have observed that their comprehension of the APA guidelines is much better than in the traditional way of teaching such a type of courses i.e. their understanding has been fostered through the use of computers and practice.

3.2.2 Interpretation of the Classroom Observation Findings

The findings obtained from the classroom observation showed that the use of computer-assisted language learning as a teaching strategy has positively affected the students' comprehension of the research methodology course in comparison to the traditional way of teaching which is based on the theoretical way. First of all, during the use of computers students were highly engaged, motivated and interested. They followed the teacher's instructions and they did the required tasks. Also, they have enjoyed the integration of the CALL strategy which was a new experience for them far from the routine of the traditional way of teaching. They wanted to try something new, and since they are mainly influenced by the technology they find it an effective strategy to foster their learning. However, during the first two sessions which were purely theoretical. Most students were demotivated and disinterested, namely because they could not comprehend the courses that supposed to be taught with practice. As they did not take things seriously, most of them did not do the task given by the teacher which was about writing the introduction of their research papers.

Second, the students' comprehension of the delivered information was highly fostered through the use of computers. Because in the previous sessions they were receiving information and rules theoretically without knowing how to apply them, especially for those who are not familiar with computer programmes; things were almost complicated for them. After getting some practice they could do the required activities using the computer with the help and guidance of the teacher.

Third, the students' attitude was completely different during the use of the two teaching methods. During the first sessions which were purely theoretical, students showed a negative behaviour towards the way of teaching; they even asked for a room of practice. They believed that they could get more and understand better through the use of computers. However, when they had the chance to use computers they were mostly satisfied. They practiced what they have seen theoretically, as they have checked their comprehension and even get familiarity with the

use of computers at least the basics. Thus, most of them were interested in the use of such a strategy and find it an effective way to foster their comprehension.

Fourth, based on the data provided by the checklist, it is clear that the time division of the pure theoretical lecture differs from the one in which practice is integrated. In both, the starting 15 minutes are allocated for warming up the students and revision of the previous lecture. After that, in the pure theoretical lecture, 40 minutes were allocated for the teacher to present his new lecture. Then, 10_15 minutes were dedicated to dictation and writing the lecture. And the sessions end up with 20 minutes allocated for students to do the required task. While in the session of practice integration, the teacher divided the session into two parts, the first one was theoretical while the second was devoted to practice. Hence, half an hour was dedicated for presenting the new lecture. Then, 20 minutes allocated for students' practice following the teacher's requirements. And they end up with 25 minutes devoted for doing their task (they started writing their research papers).

Nevertheless, the classroom atmosphere in the first sessions, when the lecture supposed to be theoretically was almost suitable. The lecture took place in the amphitheatre, the teacher was in the front presenting his lecture, he moves from time to time between the chairs, and students feel comfortable in their settings. However, during the integration of practice, the physical setting was not suitable at all. They formed groups of four and five with one computer, which does not make them feel comfortable while practicing. This mainly was due to the lack of the needed equipment in the university.

As a conclusion, the students' comprehension during the first and second sessions was almost limited. The use of some sort of practice was a must in order to assure the comprehension of the theoretical information they had seen. We were following the progress of their comprehension, as we made a tiny comparison between the sessions that were purely theoretical and the session in which the use of CALL was integrated. Thus, we derived with results that confirm our view. Eventually, the implementation of CALL as a new strategy has witnessed a number of obstacles. Mainly, the lack of equipment in the university, which makes students obliged to bring their own PCs in order to practice. Also the limited number of sessions with the use of computers. They had only one session of practice which is not sufficient at all. However, the teacher was planning for more sessions but things were out of our choice. Thus, we depended on comparing between the two first sessions and the last one in order to get our results.

3.2.3 The Teachers' Interview

In addition to the classroom observation, we have opted for the interview in order to gather the needed data from teachers. Thus, we have arranged five interviews with five different teachers of Mohamed Khider University of Biskra varying between males and females. The arrangement of those interviews was for the sake of collecting data and information concerning the adopted method of teaching RM course at our University, the obstacles faced in teaching this course, the use of ICTs namely the CALL to facilitate learning and foster comprehension, as we have asked them to suggest some effective methods of teaching this course. Each question of the interview will be analysed and discussed separately.

Rubric One: General Information about the Teachers and Their Career

This rubric is devoted to gather information about the interviewee teachers, their thoughts about English teaching as a profession, their academic degree, and the number of years they have been teaching English.

Item 1: English Teaching as a Profession

Asking teachers about their thoughts and impressions towards English language teaching as a profession, we have found that most of them are satisfied with it since it was their dream, as they do it with a passion and enjoy it because they like it. We have asked this question in order to know if they are doing their job with pleasure and love or they are obliged to do it. Because we believe that if anyone does a job that he loves he gives more and more without feeling tired. While doing something like it was a must makes the job hard doing and boring.

Item 2: Teachers' Academic Degree

We have arranged five interviews with five teachers of different backgrounds as they were mixed between males and females. We have asked this question in order to know the different levels of our teachers. Two of them are holders of the PhD degree, while three teachers have a magister degree. This proves that they are experienced enough. Also, it shows that the teachers of Biskra University have different ages and levels.

Item 3: Teachers' Years of Teaching English

Asking teachers about the period of teaching English, we have found that most of their answers varied between 4 and 15 years. We have asked this question in order to have an idea about their experience in teaching English as a foreign language. Because the teaching and

learning process of an experienced teacher differs from that of non-experienced one. In addition, teachers have different methods and techniques of teaching depending on the learners' needs, situation, and even the teacher's experience may have a role in selecting the method and technique of teaching. Consequently, we suggest that 15 years of experience in teaching English as a foreign language at University is a considerable period to know how to deal with learners. Whether in the way of delivering the lecture, or the way of facilitating information in order to help them comprehend. In addition, more importantly, in the psychological aspect; they know how to deal them and how to motivate them in order to get better results. Because the teacher may have an important role in leading the learner to success or failure, and an experienced teacher is highly aware of this issue.

Rubric Two: The Way of Teaching RM Course

This rubric consists of five questions, they are concerned with the teachers' thoughts about the RM course and the adopted method of teaching it. The rubric is designed to get the teachers' feedback concerning the students' attitudes towards the RM course, the way they use to facilitate the delivered courses, their thoughts about the adopted way of teaching RM course and their opinion about its effectiveness. As we have asked the teacher to suggest more effective strategies for teaching RM.

Item 1: Teachers' Thoughts about RM Course

Most of our interviewees have already taught research methodology. According to them, research methodology is a difficult and complicated course for L2 (second year students) because they are dealing with it for the first time. However, they are concerned only with theoretical information about the basics of methodology and academic research. While other teachers assume that methodology is highly an important course that teaches students to be logical in their thoughts, as it prepares them to do their academic researches. Nevertheless, we have asked our teachers about the students' attitudes towards the research methodology course in L2, the majority of them assert that students during the licence degree are not aware enough about the importance of the module, mainly because they are not required to submit any kind of thesis at the end of the third year. However, they start giving more importance to the module in the master degree.

Item 2: The Teachers' Methods of Facilitating a Lecture

Being a teacher means to have the responsibility of making students comprehend the maximum of the delivered information. However, the complicated nature of the research methodology course makes things harder. Especially when it comes to practice what they have seen theoretically. However, a good student is the one who can relate and fill the gap between theory and practice. In this vein, some teachers said that they still use the traditional method; they use the board to explain theoretically, give activities and homework, and use exemplification. However, other teachers insist that the practical nature of the research methodology course impose them to make a link between theory and practice. Therefore, they always try to give a room for practice. In addition, some of our teachers assume that they need to provide students with practice more than theory, because theoretical information could be gotten through books internet and so on, while the time of the session is better to be dedicated for practice.

Item 3: The Teachers' Thoughts about the Adopted Method of Teaching Research Methodology Course in our University

The majority of teachers are not satisfied with the current system of teaching such a course at our university. They insist on the need for practice and training sessions for students. They suggest to not rely only on the theoretical way of teaching which is also important, but the integration of practice is highly needed. In addition, some of the teachers highlight the point of the absence of cooperation, coordination, and harmony between the teachers, each of them is teaching according to what he finds is appropriate. However, if there were cooperation between teachers things may be better, they may discuss the students' needs in order to take a decision that helps them to get more practice. Furthermore, one of the interviewees has already taken the initiative and integrated the practice within the research methodology courses of L2 and he was greatly satisfied with the obtained results.

Item 4: If the Theoretical Way of Teaching is enough for Students

We have arranged five interviews with five teachers; all of them assume that teaching research methodology theoretically with no practice is not enough at all, because students are having a huge gap between theory and practice. Things seem to be clear but when it comes to applying them, they face difficulties. Moreover, some of the teachers suggest that the more we have innovation and variety in teaching the more we reach better results. Actually, technology is highly needed in most courses not only research methodology. While other teachers state that

it is not only about the teachers' way of teaching but even the students' motivation and readiness to learn are important in order to make an effective learning process.

Item 5: Suggestions for New and More Effective Methods of Teaching Research Methodology Course

Since all of the interviewees were not satisfied with the way of teaching such a module, we wanted to hear their suggestions concerning the effective methods of teaching research methodology course. The majority of them agree on focusing on the practical side, in addition to the need of being up-to-date and recent to the changes and new guidelines of methodology. In this respect, one of our teachers has already adopted a new method that is the laboratory-based approach (LBA); this latter requires the use of the computer to apply what they have seen in the lecture. In addition, other teachers suggested delivering the theoretical information through hand-outs or via internet and devoting the session's time for practice. However, some other teachers assume that the organization of workshops in order to make an interaction between students and teachers could be extremely helpful to foster the learning process of the course.

Rubric Three: The Use of ICTs and CALL in Teaching

In this rubric six questions are included, it is devoted for gathering information concerning the use of the ICT tools more precisely the CALL in teaching. Thus, we tended to get insights about the teachers' methods of teaching and whether they use ICTs, their beliefs concerning the effectiveness of CALL in fostering the learners' comprehension of RM, the students' attitudes towards the use of ICTs during the session. Moreover, we tackled the obstacles that the teacher may face in teaching RM, in addition to their feelings towards the achieved results through the use of ICTs.

Item 1: Whether our Teachers Use ICTs in Teaching and the Purpose of their Use

Asking our teachers whether they rely on ICTs in their teaching or not was to know if they really support the use of technology to reinforce the practice, or they are just advising the new generation of the teachers to use them. In this vein, the answers were a variation between users and non-users of ICTs. Those who do not use ICTs assert that it is according to the nature of the course and the situation, as they claim that they are traditional teachers which makes them untrained to use technology in teaching. While those who use ICTs stated that, they mainly use the language laboratory during the oral sessions to accomplish the listening task. As they have

mentioned the use of computers in the ICT laboratory to practice theoretical information such as those of research methodology.

Item 2: Whether they Believe that the Use of Technologies namely the Computer is an Effective Method in Order to Raise the Students' Comprehension of RM

Most of the teachers believe that the use of computers is extremely beneficial to foster the students' comprehension of the research methodology course. Mainly, the technological tools, in general, facilitate the learning process. In addition, other teachers state that it depends on how students use the computer; if they were using it with the right way that helps them to reach comprehension, of course, it would be an effective method. Moreover, the research papers that they should submit are typed not handwritten, also their presentations required the use of PowerPoint (PPT). So, they need to get familiarity with the use of computers.

Item 3: The Students' Attitudes towards the Use of ICTs during the Session

Since some of the teachers use ICTs while others do not, only those who use ICTs are concerned with the question. Most of them find that the students' attitudes are positive, they are motivated and enthusiastic because they like to try something new and break the routine of the traditional class, sitting with a specific way, following the teacher and so on. So, they show interest and ask new and unusual questions. As well as the student belongs to the new generation which is highly influenced by those tools, so they have no problem with them but they prefer and enjoy them.

Item 4: The Main Obstacles Faced by the Teacher in Teaching Research Methodology Course

Most of the interviewee teachers have already taught research methodology course, we wanted to know the main obstacles they face in teaching this module. They have assumed that research methodology as any other course has the problem of load schedule, a large number of students, the low level of the majority of students, the time of the session, and the demotivation of students to learn. Also, they add that students are not aware of the importance of the module, besides another problem which is concerned with the environment. In this vein, our interviewees have asserted that there exist some teachers who underestimate the research methodology as a course, as a consequence the students do that too. While other teachers spot the light on the way of teaching itself, they mentioned that the students dislike theory which demotivates them. Thus, we conclude that the absence of practice may affect the students'

attitudes as it may affect the teacher itself because it has been stated by one of the teachers that teaching research methodology purely theoretically does not help the teacher at all, mainly because RM has a practical nature that we should focus on.

Item 5: The Teachers' Feelings about the Achieved Results Through the Use of ICTs in their Sessions

Since some of our teachers, use ICTs in their sessions while others do not, our feedback for this point was somehow limited. Yet, those who use ICTs found it a very effective strategy because it does not only make the lecture fun but it also renders the learning process effective. In this respect, one of the teachers stated that results were very satisfactory comparing with the traditional way of teaching. However, even those teachers who do not use ICTs support them and assert that it becomes necessary to integrate technology in our teaching.

Item 6: Whether the Interviewees advise other Teachers to use Computer-assisted Language Learning as a Teaching Strategy to Foster the Learners' Comprehension

Since all of the teachers support the use of the different kinds of ICT in teaching, they strongly agree with the assumption as they advise other teachers to use them. They assert that since the students have no problem with them but they enjoy, they do better, and their comprehension is fostered why not to integrate them. However, in this integration, we should take into consideration the nature of the course and use them in a positive way in order to reach the objective of the course.

3.2.4 The Interpretation of the Interview Findings

Based on our analysis of the teachers' interview and the feedback we had received from interviewing five different teachers with five backgrounds and experiences, the reached findings are as follows:

Our interviewee teachers were greatly satisfied with their profession as being teachers of English at university. Which assumes that they are doing their job with love, as a consequence the lectures are well delivered. In addition, we have found that our teachers are experienced enough since two of them are holders of the PhD degree and the other three have a magister degree, they are aware of the teaching aspect with all its obstacles and difficulties. That helps them to manage their classes and motivate their students to achieve better results. Furthermore, the number of years they have been teaching English varies from 4 to 15 years

which is another proof of the teachers' experience that plays an important role in the effectiveness of the teaching process.

Moreover, one of the main findings that we have reached is that most of the teachers that have been already taught RM course assume that the aspect is difficult and somehow complicated. Especially, for L2 learners because they are discovering it for the first time. That makes them demotivated during that course. As a consequence, they are not aware of its importance. However, teachers assert that they are doing their best to facilitate the delivery of the RM lectures spotting the light on giving students a room of practice.

Furthermore, based on the feedback of the teachers, the pure theoretical way of teaching RM course is not effective at all. For that reason, they emphasised on the practice using computers in order to foster the learners' comprehension of the theoretical information. In this vein, one of the interviewees has adopted the LBA laboratory-based approach in order to use the CALL strategy during the RM course.

Another point that should be mentioned is that most of the teachers are depending on ICT tools believing that they foster the learning process. While other teachers are adopting the traditional way of teaching claiming that they are untrained to use such strategies. However, those who are depending on ICTs are extremely satisfied with the achieving results, as they find that students show positive attitudes towards the use of such strategies.

In addition, results have shown that teachers are facing different obstacles in teaching RM course. Mainly, load schedule, the big number of students, and the weak level of the majority of them. In addition, the time of the session, the demotivation of students to learn, and the students' unawareness of RM' importance in their career. The last point derived from our analysis is that teachers are supporting the use of ICTs as they advise their colleagues to focus more on the practical side of teaching RM and they advise them to integrate the ICT tools whenever they are needed.

In conclusion, based on the feedback that we had from interviewing five different teachers with five backgrounds and experiences. We may assume that the use of ICTs in general and the CALL specifically is a beneficial strategy that helps the ongoing of the learning process, for the benefit of both teachers and students. To say that, the teaching process is facilitated through the CALL, and the comprehension is fostered for the students

3.2.5 The Students' Focus Group Discussion

In order to confirm or reject our research hypotheses, we needed to attain the students' feedback. Therefore, we have arranged a focus group discussion with a sample of eight students second year, three males and four females. A point that should be taken into consideration is that, since both sections were concerned with the new adopted strategy of teaching research methodology course, our sample was a mixture between students of section one and those of section two. However, due to certain reasons; only one section had the chance to experience the use of CALL in RM course. Thus, our feedback is taken from students who have already use the CALL and from those who did not as well.

Rubric One: students' thoughts about the adopted method of teaching RM

This rubric is dedicated for analysing the data concerned with the students' thoughts about the adopted method of teaching research methodology course. Thus, the rubric consists of 7 questions that aim to gather information concerning the students' thoughts about RM course, whether they enjoy this session, if they find it beneficial for their careers and whether they comprehend the delivered lectures in this course. As we have tended to tackle their comprehension of the delivered lectures in that course and whether they were satisfied with the adopted method. In the end, we wanted to know their suggestions of the ways to teach RM course.

### Item 1: The Students' General Thoughts about RM Course

The responses of our sample of students concerning their thoughts about RM course were varied. However, most of them agree on the benefit and importance of the course in their learning process and career as well. Moreover, the majority of them are linking the course with the preparation of their dissertations of M2, mainly this is why they find it important. While one of the students stated, "well, at the first I thought methodology is how to organise any random project, but after a while I realized the importance of the course, especially when it comes to APA and MLA guidelines". Based on the student's words, we can see that he is aware of the importance of the course in accomplishing the different academic researches, especially when he has mentioned the APA and MLA guidelines which are the basics of writing any academic research. However, he added that he could not enjoy the session of RM because according to him without any kind of practice or assignment things still unclear because of the use of new vocabularies. In sum, the majority of students find it a beneficial and important course that helps them to achieve more when it comes to academic researches, they enjoy the

session. While one of the students insists that attendance is a must and essential for the student, it does not depend on whether he enjoys the session or not. Whereas when it comes to comprehension, some students have no problem, while others could not comprehend all the delivered information, only a few and simple ones.

Item 2: Students' Enjoyment of the Session

Asking our students whether they enjoy the research methodology session was to know their impressions towards the course. Accordingly, the following table and graph show the results of the students' responses.

Table 3.3 Students' Enjoyment during RM Course
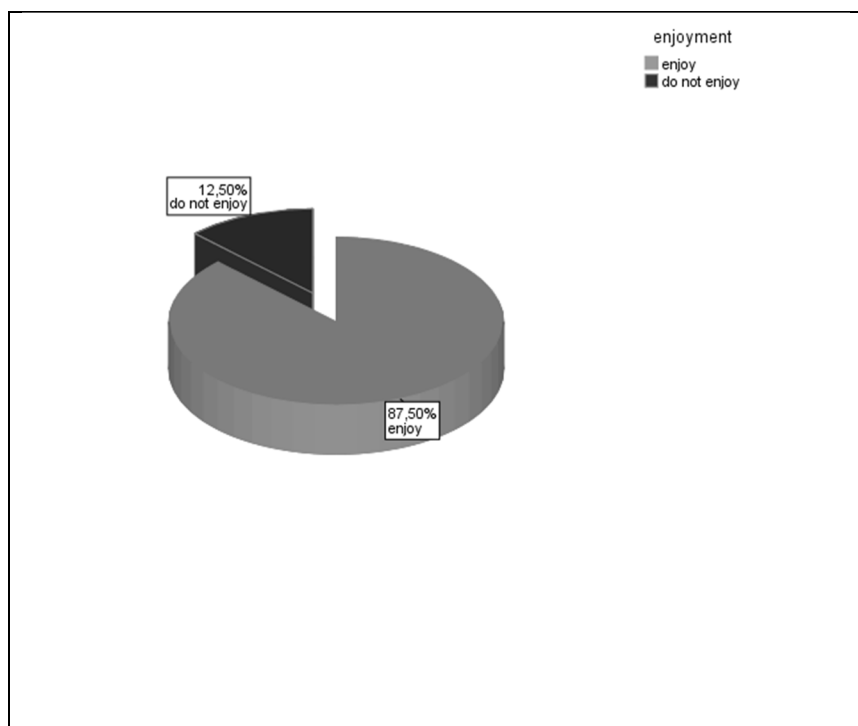
Option	Frequency	Percentage
Yes	7	87.50%
No	1	12.50%
Total	8	100%

enjoyment
■ enjoy
■ do not enjoy

12,50%
do not enjoy

87,50%
enjoy

**Graph 3.1** Students' Enjoyment during the RM Course

The information mentioned in table 3 and figure 1 shows that seven students enjoy the session of research methodology while only one student did not i.e. a percentage of 87.50% presents the students who had enjoyed the session while 12.50% presents students who did not. In this vein, students who had enjoyed this session assert that they are discovering a new module

and enjoying getting new information, which is mainly important in their opinion. However, the student who did not enjoy the session claim that he could not comprehend the delivered information and follow the teacher. As a result, he could not enjoy the session.

Item 3: Students' Thoughts about the Benefit of RM Course

Asking students whether they find the research methodology course beneficial for their studies was to know how they consider it as a new module for them. Hence, the following table and graph show the results of the students' responses.

Table 3.4 Students' Thoughts about the Benefit of RM Course

Option	Frequency	Percentage
Beneficial	7	87.50%
Not Beneficial	1	12.50%
Total	8	100%
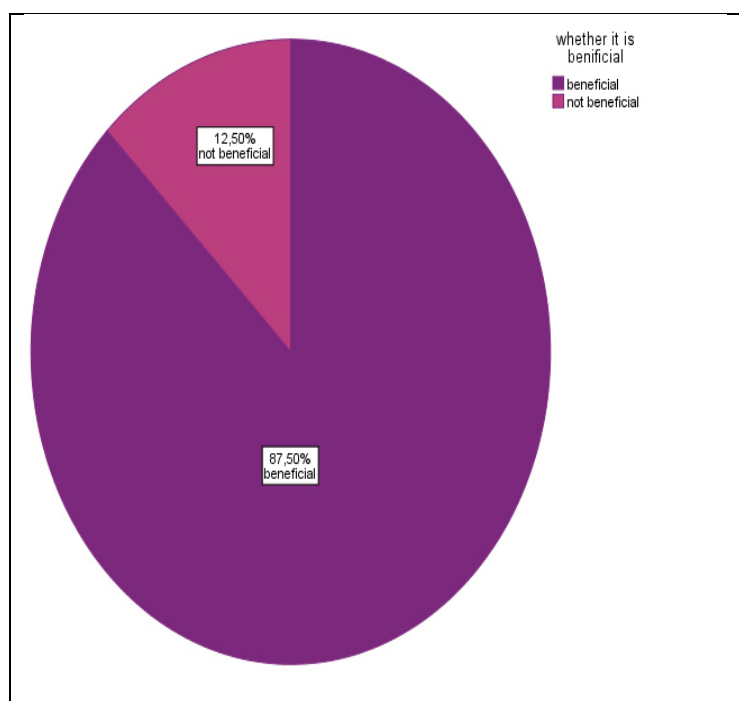
Graph 3.2 Students' Thoughts about
The Benefit of RM Course

Based on the information offered on table 4 and graph 2, we noticed that seven students find the course of research methodology beneficial while only one student answered by no, he did not find it beneficial, which makes the percentage of 87.50 % find RM course beneficial and 12.50% did not find it beneficial. That means the majority of student find RM course beneficial for their studies. Those who find it beneficial see that it helps them in conducting their academic researches. However, the student who did not find it beneficial claims that it was

not necessary to have this module each year, he suggested to have this module in master degree since they are not required to submit any kind of academic research in the licence.

Item 4: Students' Comprehension of the Delivered Lectures in RM Course

We have asked students whether they comprehend all the delivered lectures in research methodology course in order to know if they have no problem with the comprehension or they are struggling to comprehend. Thus, results are shown in the following table and graph.
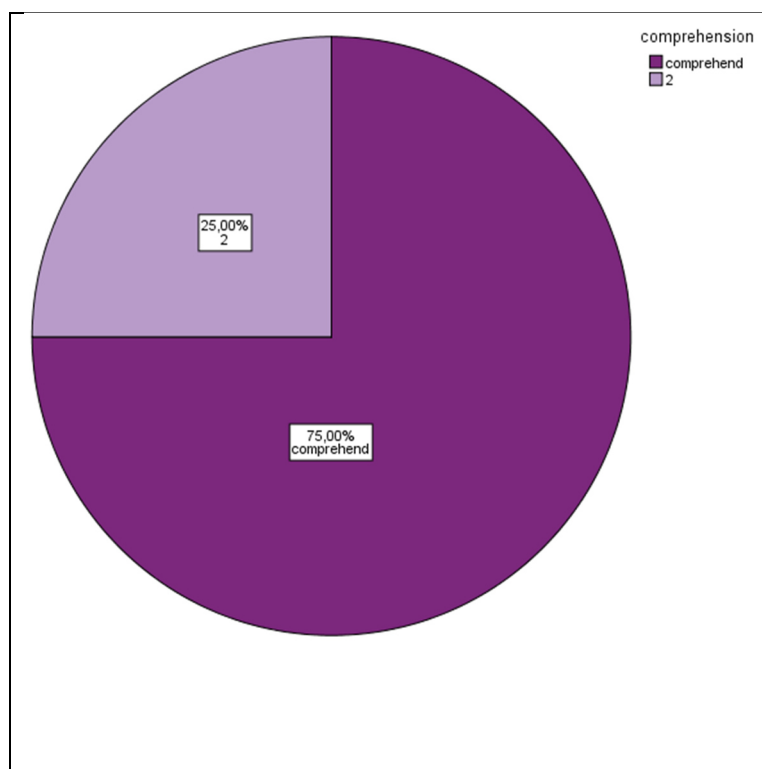
Tables 3.5 Students' Comprehension of Delivered Lectures in RM Course

Option	Frequency	Percentage
They comprehend	6	75%
They do not comprehend all lectures	2	25%
Total	8	100%

Graph 3.3 Students' Comprehension of Delivered Lectures in RM Course

According to table 5 and graph 3, a percentage of 75% describes the students who are able to comprehend the delivered lectures of RM course which were six out of eight, and 25% describes the students who were not able to comprehend all lectures which were two students.

Those who have no problem with the lecture comprehension find it easy and find the teacher a hard worker who does his best to make them comprehend. While the two students who could not comprehend; one of them was not attending his lectures which made a problem for him, and the other students find some RM lectures complicated and he could not have clear comprehension about them.

Item 5: To What Extent Students Have Understood the Lecture of APA and MLA before the Use of Any Kind of Practice

Asking our students about their comprehension of APA and MLA lecture was to know if they could comprehend such a lecture which has a practical nature without a need for a room of practice. In this vein, most of our students find things complicated and unclear because the module itself is new for them, as the APA and MLA course contains some special words and jargon mainly related to the computer which make it impossible to understand without the use of a computer, especially for those who are not accessed to computing. While others assumed that they were taking the theoretical information in the course as notes and practice them at home with the use of the computer, we believe that it could not be the case for all students, not all of them may have a computer at home. Thus, a practice in the laboratory of the university could be much better to assure that all students get practice. While some of the students stated that, they did not attend the lecture of APA and MLA guidelines, which makes them unable to answer the question.

Item 6: Students' Satisfaction with the Theoretical Way of Teaching

Students were asked if they are satisfied with the adopted way of teaching RM course; which is purely theoretical, in order to get their opinions about that issue. The following table and graph show the attained results.

Tables 3. 6 Students' Satisfaction with the Theoretical Way of Teaching

Option	Frequency	Percentage
Satisfied	1	12.50%
Not satisfied	7	87.50%
Total	8	100%
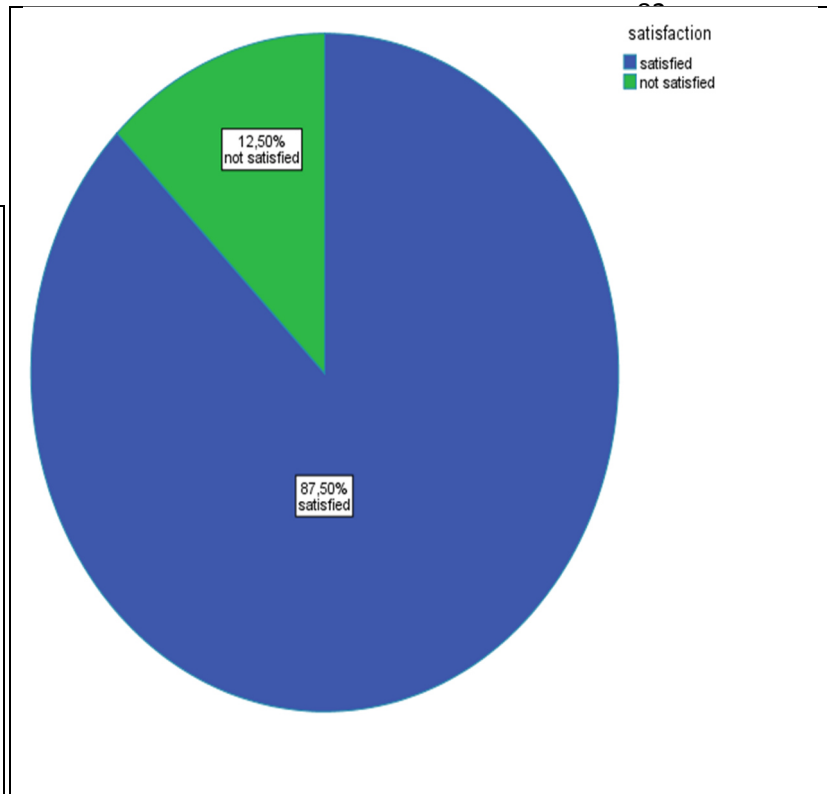
Graph 3.4 Students' Satisfaction with the Theoretical Way of Teaching

The findings presented in table 6 and graph 4 indicate that the majority of students 87.50% of the sample are not satisfied with the way of teaching research methodology in our university, which is according to them purely theoretical. Whereas only one student who represents 12.50% was satisfied with that method because he finds that the teacher is doing an extra effort to facilitate the delivery of information.

Asking our students about their impressions towards the theoretical way of teaching RM was to know if they are satisfied, they comprehend, and if they are not in need of a room of practice. Hence, the majority of our students were not satisfied at all in that way. They assert that without practice they could not see their capacities if they have really comprehended the lecture because according to them, theory is very different from practice; things may seem to be clear in theory but when it comes to practice is something else. Moreover, other students mentioned that it was even hard to follow the teacher without a computer because he was explaining things mainly found on the computer. Therefore, giving random titles and words related to computing was not sufficient for students to comprehend and follow him. For that

reason, during the theoretical session of RM, students asked their teacher to provide them with practice in order to make an equivalence between theoretical information and practicing them. To conclude, we can assume that the adopted way of teaching RM for L2 which is mainly based on the theoretical way with a total absence of practice, was neither an effective nor a satisfying method of teaching such a course, which requires much more time for practice.

Item 7: Students' Aspirations Concerning the Way of Teaching RM Course

We have asked the students how they could teach RM if they were in the teacher's place in order to see their aspirations and how they want to be taught in this course. The answers of our students were varied; some of them were not interested in teaching as a profession. Therefore, they could not imagine themselves as teachers as they could not imagine the situation in general. While others find the way of their teacher is fine since he is trying to do his best whether in explaining the lecture or in trying to help them comprehend or even in trying to find a solution concerning the lack of practice. Thus, they would adopt the same way as their teacher. However, other students would give much more time for practice if they were teachers; they assert that most of their sessions would be in the laboratory in order to give students the opportunity to have an equivalence between their practice and the teacher's explanation.

Furthermore, some of the students suggest that at least they would give them the assignments to do at home which help them to practice, but as we have mentioned previously, not all students may have computers at home, also how could they work without the teacher's guidance especially those who are not familiar with computing. Moreover, one of the students answered the questions by "I would teach passionately" asking him how could passion assure the students' comprehension? He assumed that being a passionate teacher would teach students to love the subject. Hence, they will care enough about it, and once they are aware and they care they will do their possible to comprehend because they will never try to understand what they care about less. In sum, the majority of students would integrate the use of computers to assure practicing the theoretical information whether at home by giving them assignments, or through the provision of the needed equipment in the university.

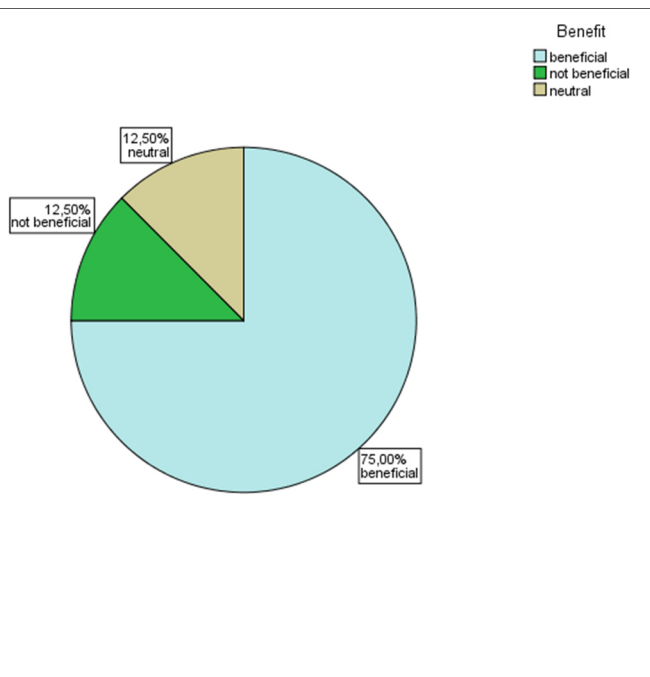**Rubric Two: Students' Attitudes towards the Use of CALL**

Rubric two is composed of six questions that aim to gather data concerning the students' attitudes towards the use of CALL in RM course. Therefore, we wanted to know whether they have benefited from the integration of the CALL strategy, as we have tackled the problem they have faced due to the lack of needed equipment. Moreover, we tended to gather information

about their familiarity with computing and the difficulties they have faced during practice. Next, we wanted to know if they validate the assumption that says CALL helps learners to comprehend their theoretical lectures. Also, we have asked them if they were able to comprehend with the traditional way of teaching or they needed the integration of CALL. In the end, we gave them the opportunity to add further comments.

Item1: The Effectiveness of the CALL Strategy

In order to know the students' impressions and attitudes toward the integration of the CALL, we have asked them whether they find it beneficial in their learning. Following table and graph show the results.

Table 3.7 Students' Thoughts about the Benefit of CALL

Option	Frequency	Percentage
Beneficial	6	75%
Not beneficial	1	12.50%
Neutral	1	12.50%
Total	8	100%

Graph 3.5 Students' Thoughts about the Benefit of CALL Strategy

Relying on the data presented in table 7 and graph 5, we notice that the majority of students 75% find the use of computer-assisted language learning in teaching research methodology

course a beneficial strategy. However, one student that represents 12.50% of the sample did not find it beneficial because its application in the amphitheatre was not effective. While another student that represents also 12.50% had a neutral response, he states that he did not do the practice he was only following his classmates in the group work because computers were not enough for all of them. Thus, he could not give any feedback concerning that point.

We have asked this question in order to have feedback about the students' attitudes towards the use of CALL in RM course. Yet in their situation, only one section had the chance to use computers. Thus, some of the students have experienced that while others did not. Therefore, the majority of those who have experienced the use of CALL assure that using the computer to practice what they have seen theoretically was an effective way to facilitate the lecture and foster their comprehension. However, some students suggest to integrate the use of CALL in all others courses and education in general not only RM, because they claim that it keeps them up to date with the newest versions of educational programmes. As they add that if they are not able to keep up with the technological revolution of the world, they will not be able to develop themselves. Hence, we can conclude that students who have experienced the integration of CALL had a positive attitude and impression towards the new adopted method by their teacher, because it helps them to save the time of comprehension and make things clear. Even the students that had not the chance to have a session of practice have answered the question by "yes, it is supposed to be beneficial" because they were hoping to have a practice in order to foster their comprehension.

Item2: Their Thoughts about the Lack of Needed Equipment in Our University

During our observational sessions, we were supposed to have sessions of practice in the ICT laboratory. However, due to some technical reasons, we could not do that. So, the teacher was obliged to ask students to bring their own PCs in order to practice what they have seen theoretically. Concerning this issue, most of the students complain about the situation and claim that it is the university's responsibility to provide them with equipment and tools needed in their studies. While some other students did not have a problem, but they find it better to work on their own PCs because they are familiar to them. However, the majority of students were hoping to solve the problem if not for them at least for the coming promotions. In addition, some students claim that the issue is bigger than a simple lack of equipment, but the problem is a dilemma that occurs in the higher level of the management office hoping to solve it as soon

as possible. In brief, the university's lack of equipment was not acceptable at all for the students, as they have blamed the people in charge for not providing students with the study atmosphere.

Item 3: Students' Familiarity with the Computing Programmes

Since we believe that not all students are familiar with the computing programmes, we have asked them if they are familiar with the use of the computer. Results are shown below.
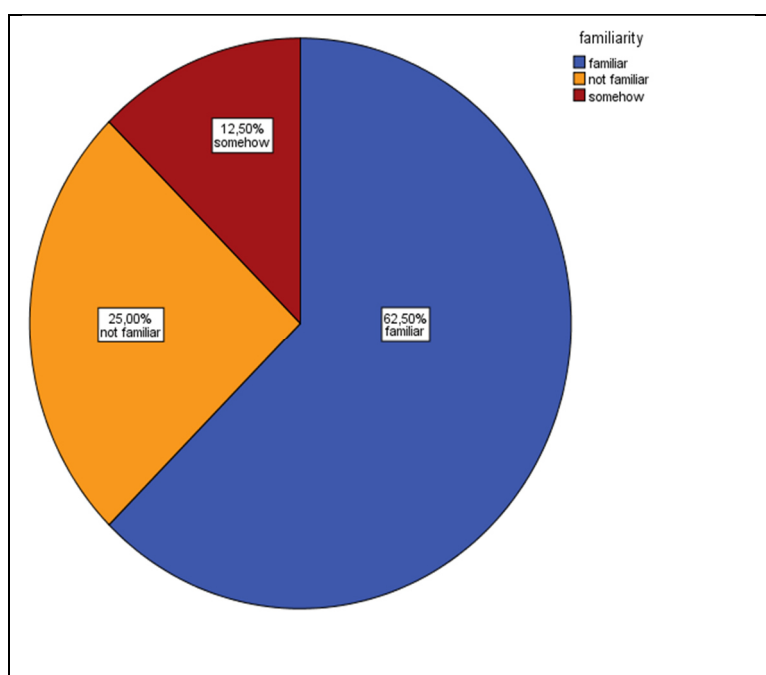
Graph 3.6 Students' Familiarity with the Computer Programmes

Table 3.8 Students' Familiarity with the Computer Programmes

Option	Frequency	Percentage
Familiar	5	62.50%
Not familiar	2	25%
Somehow	1	12.50%
Total	8	100%

Based on the results obtained from table 8 and graph 6, six students are familiar with the computing programmes that make a percentage of 62.50%. While, two students are not familiar which make a percentage of 25%, and one student states that he is somehow familiar but he cannot manage all the computing programmes, which makes a percentage of 12.50%. We have asked this question in order to see to what extent our students can manage the use of computers during the sessions of practice. Thus, we have found that most of them are familiar and have no problem with the integration of CALL.

**Item 4: The Difficulties Faced by the Students during the Practice Time**

We asked the students who have experienced the use of CALL about the difficulties they face during the practice time. In this vein, some of students mentioned that the problem was with the use of computer itself, they are not familiar with the computing programmes. While others faced a problem in making a balance between listening to the teacher's explanation and doing the work on the computer at the same time. However, some other the students claim that they had no problem with the use of computer they are familiar with its programmes, but they spot the light on the way of doing the work. They state that the number of computers was very limited because they were supposed to bring their own PCs, they were working in groups of four and five, which does not give the chance to all of them to practice. In addition, some of them did not like to work on groups, and some others find the situation embracing because they were practicing in the amphitheatre and sitting very close to each other in order to see the screen of the computer and follow the practice. In sum, the students faced many and different difficulties during practice. Mainly, the unfamiliarity to computing programmes and the situation of doing the work, which is caused by the lack of equipment.

Item 5: Students' Agreement with the Assumption

The assumption says "the practice through the use of CALL helps learners to comprehend their theoretical lectures". In this respect, we have asked the students whether they agree on the given assumption or no. results are as follows.

Table 3.9 Students' Agreement on the Suggested Assumption

Option	Frequency	Percentage
Agree	1	12.50%
Disagree	7	87.50%
Total	8	100%
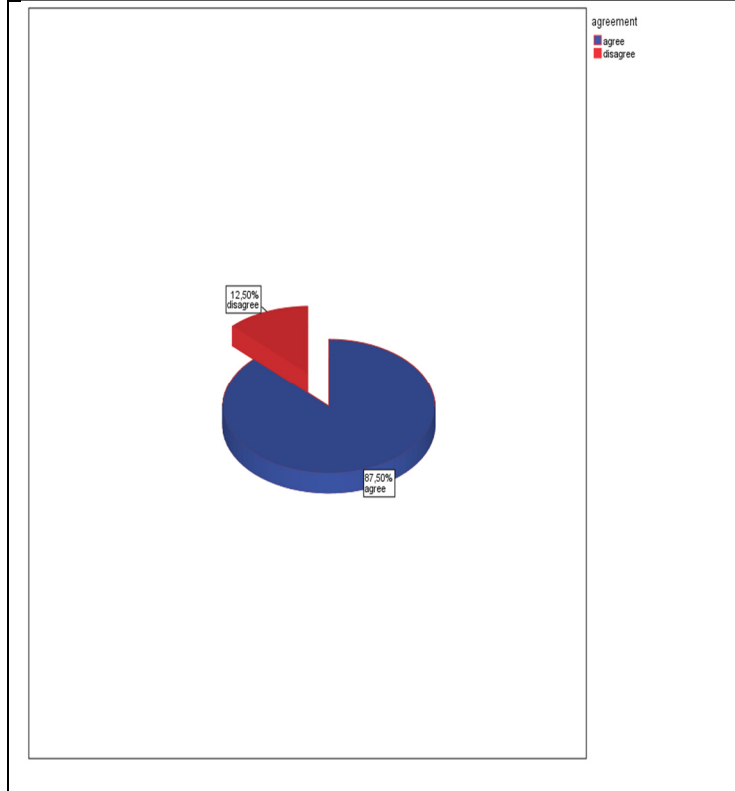
Graph 3.7 Students' Agreement on the Suggested Assumption

According to table 9 and graph 7, we conclude that most of the students 87.50% agree on the assumption that says, "The practice through the use of CALL helps learners to comprehend their theoretical lectures". However, 12.50%, which presented one student that he did not agree on the assumption, he claims that he was able to comprehend lectures presented theoretically with no need to practice.

Asking the students if they agree on considering the CALL as a teaching strategy that foster the comprehension of theoretical information was to know how they found such a strategy, and if it was beneficial for them. Hence, most of them, have strongly agreed on the assumption, because they claim that things were unclear at the beginning with no practice, but once they used computers almost things become clear and they comprehend what the teacher was talking about in the theoretical lecture. In this respect, one of the students mentioned, "Practicing CALL is very useful in order to make the learned skills and information not only in the surface memory but in the deepest because unconsciousness mind and recalling would be much easier".

According to the student, practice is much more important than theory, he finds that through practice things become systematic because the information is fixed in the deep memory and becomes axiomatic; whenever he needs that information his consciousness recall it easily, while the theory requires more effort and the information may go only to the short memory. Mainly because he is trying to remember things that are not clear enough to him. Therefore, the process is complicated, and after a while, he would not be able to recall the information at all. In addition, other students assume that CALL has an important role in facilitating information and make comprehension easier and faster. In addition, they find it beneficial in approaching theory to practice in which (visual/ interactive/ physical) skills are incorporated. We conclude that most of the students find the use of CALL beneficial and useful in one way or another, as they have strongly agreed with the mentioned assumption.

Item 6: Students' Comprehension through the Theoretical Way of Teaching

The adopted method of teaching RM course in our university is based on the pure theoretical way. For that reason, we have asked students if they were able to understand lectures through the pure theoretical way or they needed practice to foster their comprehension.

Table 3. 10 Students' Ability to Comprehend Lectures Presented Theoretically

Option	Frequency	Percentage
I was able to comprehend	3	37.50%
I needed practice	5	62.50%
Total	8	100%
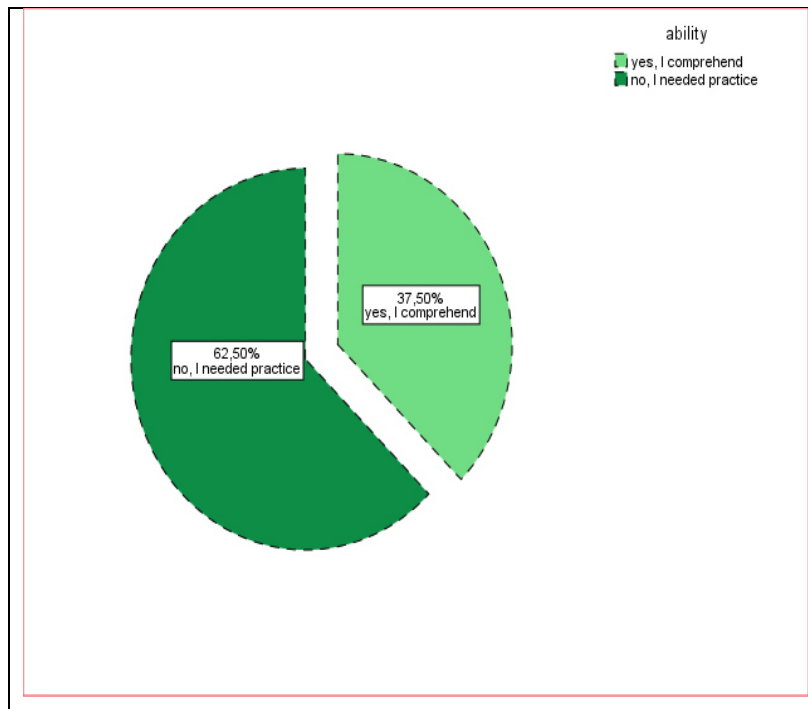
Graph 3.8 Students' Ability to Comprehend Lectures Presented Theoretically

Based on the information offered in table 10 and graph 8, we notice that the high number of answers were for "No, I needed a practice", with five answers that present 62.50%. Whereas, three students have answered with "yes, I was able to comprehend through theoretical lectures" which represent 37.50%.

Asking our students if they were able to comprehend lectures that were delivered with a purely theoretical way was to know if the use of CALL was really needed to foster their comprehension, or it a was an additional strategy. Thus, the majority of students assume that they may comprehend through the theoretical way, but their comprehension would take time. While the use of CALL makes it easier and faster. However, some others students assert that the use of CALL was not really needed though it was beneficial, its application in their course was not effective enough, mainly, because of the disorganization, limited number of computers, and the physical setting. However, we find that most of the students were in need to practice in order to enhance their comprehension, even if they were able to comprehend with the traditional

way of teaching but they will need much time and efforts, because it is very hard to learn and memorize things they do not have a clear comprehension about.

3.2.6 Interpretation of the Focus Group Discussions Findings

Based on the analysis of the students' focus group discussion that has been conducted with eight students of English second year at MKUB. The reached findings are as follows:

The majority of the L2 students are aware of the importance of research methodology course in their studies, namely in conducting their academic researches. As they believe that it is a course that helps them to think logically and relate between theory and practice. In addition, based on our analysis most students were enjoying the research methodology session and liked to discover new things and aspects. Furthermore, the majority of students have considered the RM course as a beneficial one that helps them to be accurate in their learning. Furthermore, most of the students were dealing well and comprehending the delivered information while our analysis showed that there were few students could not comprehend all the delivered lectures.

In the same vein, a point that should be mentioned is that students were struggling with comprehending some specific words of methodology which are mainly related to the computing jargon. Thus, without the use of computer things were complicated for them. In addition, results showed that the majority of students were not satisfied with the way of teaching RM which has a practical nature that requires more focus on practice. In fact, asking them how would they teach this module if they were in the teachers' place showed that most of them are in need to a room of practice providing them with the needed equipment to practice what they have already seen theoretically.

Another result derived from our analysis of the focus group discussion is that after the integration of the CALL strategy most of them showed a positive behaviour, satisfaction, and they find it a beneficial strategy that fosters their comprehension. Moreover, the situation in which they had experienced practice was not appropriate, they had complained for the lack of equipment as they have asked the administration to provide them with needed tools in their studies.

Concerning their familiarity with the computer programmes, results have shown that most of them are familiar with the use of the computer which makes no problem with the integration of CALL in their different courses. In addition, students have faced several difficulties during

practice time. Mainly, the limited number of computers, the uncomfortable setting, and the group work.

One of the results achieved is that most of the students agree on the assumption of fostering the comprehension of the theoretical lectures through the use of CALL. Since they have experienced that, they are able to validate the assumption. The last achieved result was that most of the students were not able to comprehend the RM courses especially the APA and MLA guidelines without a practice. Thus the use of CALL was extremely needed.

In conclusion, based on the feedback that we received from the focus group discussion with a sample of eight students second year, we may deduce several points. First, the use of CALL was provided to one section only, the other section did not have the chance to experience this strategy. While our sample is a mixture between section one and section two. Second, the application of CALL was in the amphitheatre with the students' own PCs which were limited, that has affected the effectiveness of the used strategy because the physical setting was not appropriate. Third, students were struggling to comprehend the RM courses through the pure theoretical course, especially the course of APA and MLA guidelines. Last, students find the use of CALL very effective and beneficial strategy to foster their comprehension, save time and efforts.

3.3 Summary of the Results

Our general aim behind conducting the present research was to highlight the role of computer-assisted language learning CALL as a new language teaching strategy to foster the learners' comprehension of the research methodology course. In addition to the investigation of both teachers and learners' attitudes towards the integration of CALL in the teaching/learning process. Therefore, we have used three data collection tools in order to gather the needed information concerned with our investigation. Namely, the classroom observation, the teachers' interview, and the students' focus group discussion.

Accordingly, the study attempts to find out how the teacher and student use the computer-assisted language learning in the teaching/learning process. As it tries to investigate the importance of using the CALL in EFL classes of the second year and list its main benefits. Moreover, we attended through the present study to provide teachers with new teaching strategy and encourage the use of the CALL programme in EFL classes in order to enhance learners' comprehension of the lecture.

Therefore, the findings reached through the analysis and interpretation of the three data collection tools used in the present study were positive in a number of ways. First, the analysis and interpretation of the classroom observation showed that the use of computer-assisted language learning as a teaching strategy has positively affected the students' comprehension of the research methodology course in comparison to the traditional way of teaching which is based on the theoretical way.

Simultaneously, Students were highly engaged and motivated during the integration of the CALL strategy, as they have enjoyed it since they have experienced a new method of teaching far from the traditional one. Moreover, the analysis of the classroom observation showed that the students' comprehension of the delivered information was highly fostered through the use of computers. Since they have already experienced the traditional way of teaching which is purely theoretical, they were struggling with comprehending courses which are practical in nature. However, after the integration of CALL students were almost satisfied.

In this respect, the students' attitude has completely changed during practice time. They were motivated, interested, and they have checked their comprehension and even get familiarity with the use of computers. Thus, they find it an effective way to foster their comprehension. In addition, based on the data provided by the observation checklist; the time division during the integration of CALL was different from that during the traditional way of teaching. In the former, most of the time was dedicated for practice, which has created a learning atmosphere; rather than the noisy one during the traditional classroom.

Regarding the teachers' interview, the reached findings illustrate that the interviewees are greatly satisfied with their professions as teachers, they do their job with love and passion. Moreover, they are experienced enough, which makes them aware of the teaching aspect and the faced obstacles in that domain. Furthermore, findings have shown that teachers are finding the RM course difficult and somehow complicated aspect. Especially, for L2 learners because they are discovering it for the first time. That makes them demotivated during that course. As a consequence, they are not aware of its importance. However, this does not impede the teachers to make extra efforts in order to enhance the students' comprehension.

Another important result that has been reached through the teachers' interview is that the pure theoretical way of teaching RM course is not effective at all. For that reason, they emphasised on the practice using computers in order to foster the learners' comprehension of the theoretical information. As a matter of fact, most of the teachers are depending on ICT tools

believing that it fosters the learning process. While other teachers are adopting the traditional way of teaching claiming that they are untrained to use such strategies.

In addition, the results have shown that teachers are facing different obstacles in teaching RM course. Mainly, load schedule, the big number of students, and the weak level of the majority of them. In addition to the time of the session, the demotivation of students to learn, and the students' unawareness of the importance of RM in their career. Moreover, an important point has been derived from the teachers' interview is that the use of ICTs in general and the CALL specifically is a beneficial strategy that helps the ongoing of the learning process. For that reason, teachers are advising their colleagues to focus more on the practical side of teaching RM and they advise them to integrate the ICT tools whenever they are needed.

Concerning the students' focus group discussion, a number of results have been illustrated. First, the majority of the L2 students are aware of the importance of research methodology course in their studies, namely in conducting their academic researches. As they believe that it is a course that helps them to think logically and relate between theory and practice. Moreover, most of the students were enjoying the research methodology session and liked to discover new things and aspects. Furthermore, the majority of students have considered the RM course as a beneficial one that helps them to be accurate in their learning.

Second, students were struggling with comprehending some specific words of methodology which are mainly related to the computing jargon. Thus, without the use of computer things were complicated for them. As they were not satisfied with the way of teaching RM which has a practical nature that requires more focus on practice. Third, results have shown that students are in need of a room of practice providing them with the needed equipment to practice what they have already seen theoretically.

Another result derived from our analysis of the focus group discussion is that after the integration of the CALL strategy most of them showed a positive behaviour, satisfaction, and they find it a beneficial strategy that fosters their comprehension. Furthermore, results illustrate that most of them are familiar with the use of the computer which makes no problem with the integration of CALL in their different courses. The last achieved result is that most of the students agree on the assumption of fostering the comprehension of the theoretical lectures through the use of CALL. In addition, most of the students were not able to comprehend the RM courses especially the APA and MLA guidelines without a practice. Thus the use of CALL was extremely needed.

3.4 Synthesis of the Findings

Ultimately, results that we have reached through the use of the three data gathering tools led us to similar conclusions towards the use of computer-assisted language learning as a teaching strategy to foster learners' comprehension of research methodology course. In addition to the results obtained by other researchers previously. The present study led us to a number of conclusions. Mainly, approximate to the same synthesis concerned with the results of the used tools in accomplishing the current research.

In this vein, results derived from the use of the three data gathering tools confirm the two research hypotheses. In one side, teaching the research methodology course theoretically may obstacle the comprehension process of the course and prevent students to reach their academic goals. This has been confirmed during our classroom observation; most of the students were not satisfied with the theoretical way of teaching RM. Moreover, they have asked for a room of practice believing that it may foster their comprehension of the course. Also, the results derived from the students' focus group discussion confirm the results of classroom observation above-mentioned. Furthermore, through the teachers' interview, we have come into a conclusion that affirms the same results; teachers assert that the pure theoretical way of teaching research methodology is not enough, accompanying theory with practice is extremely needed.

On the other side, the learners' comprehension of the research methodology course may be fostered through the use of computer-assisted language learning. Our hypothesis was confirmed through the results achieved from all the three used instruments. Through the comparison between the two observation sessions and the last session which included the integration of CALL we concluded that their comprehension was fostered through the use of CALL. In addition, the focus group discussion' results assert that students find the CALL strategy an effective way to foster their comprehension. As well as, teachers assure that the use of ICT tools and CALL are greatly important in teaching nowadays.

Accordingly, the present study provides answers to both research questions. As it achieved intended aims. Moreover, the research tools confirmed the research hypotheses. As a result, based on the obtained findings of the current research, our research hypotheses are validated. First, teaching the research methodology course theoretically has frustrated the comprehension process of the course. Second, the learners' comprehension of the research methodology course is fostered through the use of computer-assisted language learning.

Conclusion

   To sum up, this chapter is concerned with the analysis and interpretations of the gathered data, which is concerned with the students' attitudes and the teachers' thoughts about the use of CALL as a teaching strategy to foster the learners' comprehension of the research methodology course. We opted for three data gathering tools that were classroom observation, teachers' interview and students' focus group discussion. This chapter presented the new adopted strategy of teaching research methodology course by one of the teachers of Mohamed Khider University of Biskra, as it provided detailed data of the three data gathering tools. Furthermore, it illustrated the obtained findings and the students/ teachers feedback and answers. As a result, through the findings gained from this chapter, we can assume that students were facing difficulties in comprehending the delivered lectures of RM through the pure theoretical way. As we conclude that the integration of the CALL was extremely beneficial in fostering the learners' comprehension.

Pedagogical Recommendations

   After analysing the teachers' interview, the students' focus group discussion and the description of the classroom observation. Also based on the reached findings, which show the positive influence of the computer-assisted language learning on the learners' comprehension of the courses with a practical nature such as research methodology. We attempt to suggest some pedagogical recommendations that may be helpful in fostering the learners' comprehension, integrating the CALL strategy successfully, and improving the teaching/learning process. The suggested recommendations are as follows:

- ✓ The administration of the English Division should provide students with the needed equipment, mainly, computers and the access for the internet;
- ✓ People in charge and IT employees should fix technical problems in the ICT laboratories of the faculty;
- ✓ They should support courses that have a practical nature such as RM with TD sessions and workshops;
- ✓ The problem of the huge number of students is suggested to be solved, in order to arrange a good study atmosphere students could be divided into small groups;
- ✓ The use of the different ICT tools, mainly the CALL is suggested to be extended in teaching English;

✓ Teachers are proposed to provide their students with sessions of practice using computers to foster the comprehension of RM courses;

✓ Teachers are suggested to be aware of the importance of the delivered lectures and estimate them, in order to help in motivating students;

✓ Students should be aware of the importance of the RM course in their studies;

✓ Students should be serious, interested and motivated whether during the theoretical lectures or the sessions of practice;

✓ Finally, teachers are suggested to apply the computer-assisted language learning in other courses such as written expression, grammar and so on;

Limitations for the Study

This study has limitations, initially, our observation sessions were supposed to take place in the amphitheatre during the traditional way of teaching one time, and in the ICT laboratory during the integration of CALL another time. However, due to certain technical problems in the ICT laboratory all the observation sessions took place in the amphitheatre. Moreover, since the teacher has decided to integrate the CALL strategy he was obliged to ask students to bring their own PCs to practice during the lectures in the amphitheatre. This has caused a problem because the number of computers was limited, they worked in groups. As a consequence, not all of them get the chance to practice. Furthermore, due to special circumstances and strikes that were out of our reach, our planned classroom observation sessions could not be accomplished; we have attended only three sessions; two sessions with the traditional way of teaching, which is mainly theoretical in nature, and one session with the use of computers. Moreover, our sample consists of students from both sections. However, one section had experienced the use of computers to practice while the other section does not, which may affect the students' feedback in the focus group discussion. Furthermore, due to the same above-mentioned reasons, our sample of students was a small number in order to arrange several groups of discussion. Hence, we have worked with only one group of eight students. Thus, the sample population is not truly representative. Involving a bigger number of students and more sessions of classroom observation might have increased the reliability of the study. Therefore, the results of the present study are limited to a particular kind of learners and could not be generalized to other learners from other departments and universities all around Algeria. However, the findings of the present study still beneficial for both teachers and learners, as they contribute in developing and enhancing the teaching/learning process, study curriculum, and teaching materials.

General Conclusion

Due to the technological revolution that has mainly affected all domains, researchers still always discovering in order to keep up with that change. As a matter of fact, the educational field has been evolved throughout time. Teachers are always trying to investigate new teaching methods, techniques and strategies in order to enhance the teaching/learning process. Hence, the teachers' role is to provide the students with needed information with an appropriate way that helps them to receive it effectively. In that vein, more reliance on technology and ICTs is needed in order to keep up with the technological change and facilitate the delivered lecture. In the current work, we presented one of the newest strategies in teaching research methodology course; we opted for the use of computer-assisted language learning to enhance the learners' comprehension of that course.

Our research attempted to describe and examine the effectiveness of the adopted strategy and the students' attitudes towards the use of CALL in RM course (a case study of L2 students department of English Biskra University). In this work, we spot the light on the integration of CALL in RM course in order to answer the research questions stated at the beginning and confirm or disconfirm the suggested hypotheses. Our investigation of this research was based on three data gathering tools varied from a classroom observation, a focus group discussion administrated to L2 students and an interview designed for teachers.

This research is composed of two main parts, the first part is a theoretical one; composed of two chapters where the two variables were discussed. The first chapter is an overview of the computer-assisted language learning, while the second one is about the lecture comprehension in EFL courses. Furthermore, the second part of the research is the practical side of the study where our classroom observation was launched to see the effectiveness of the used strategy, in addition to the students and teachers' views that were undertaken to know their thoughts and impressions towards the use of CALL to foster comprehension.

The first chapter presented an overview of the computer-assisted language learning. Starting by presenting the different types of ICTs and their significance on learning. Moving to discover the different E-learning types. Then, a presentation of the history, definition, and categories of computer-assisted language learning. Then it spotted the light on the benefits of using the CALL strategy to enhance the learning process. The following point discussed the challenges faced in using computer-assisted language learning as a teaching strategy. Furthermore, it explained the

relationship between CALL and corrective feedback. As it concluded by approaching the computer-assisted language learning as a teaching strategy with the lecture comprehension of EFL learners.

Next, the second chapter dealt with lecture comprehension and its related aspects. We have started by a general definition of education and academia, the relationship between them and a brief comparison of education between past and present. Next, we have provided an explanation of some traditional methods in teaching English, mainly Grammar-translation method, audio-lingual and the direct method. Thereafter, we moved to describe the teachers' roles and learners' types. The following point was concerned with education and cognitive psychology; in this vein, we have tackled the point of comprehension and how does it occur in the human brain. After that, we moved to a deep description of lecture comprehension, its importance and the problems that may students face in comprehending lectures. In the end, we concluded with the academic achievement, factors that affect it and the relationship between lecture comprehension and academic achievement.

With regard to the third chapter, it was the field of our investigation. This chapter consists of the discussion of classroom observation findings that was scheduled with second year English students at Mohamed Khider University of Biskra. As it consists of the interpretation and analysis of the teachers' interview, and students' focus group discussion that was arranged with a sample of eight students from the same population. The results and findings were analysed and discussed separately then we have combined them in order to extract the similarities and differences between them. Consequently, the findings were clearly stated in the current chapter.

To sum up, we conducted this research in order to reconsider the adopted method of teaching research methodology in the English Department at Mohamed Khider University of Biskra. To figure out the difficulties and challenges faced by EFL learners in comprehending that course, and to shed some light on the use of ICTs and computer-assisted language learning to foster the learners' comprehension of RM course. Thus, this research remains open to any further developments as well as the next researchers are kindly invited to enhance the validity and reliability of the present research.

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Appendices

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Appendix 01: Classroom Observation Checklist: Pilot stage

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Appendix 06: Students' Focus Group Discussion

Appendix 01

Classroom Observation Checklist

Teacher: **Date:**

Observer: **Time:**

Class Observed (Section):

Items to be observed	Characteristics	Yes	No
Classroom Atmosphere	1. The classroom is well arranged 2. The classroom is occupied with the needed equipment 3. Students feel at ease in the classroom		
Students' engagement	1. Students are motivated 2. Students do the required tasks 3. Students are interested		
Time management	1. The teacher allocates time to warm up the students 2. Time allocated to explanation is sufficient 3. Time allocated for activities is sufficient		
Students' attitudes towards Call	1. Students show positive behaviour 2. Students are interested in the use of CALL 3. Students find it an effective strategy		
Students' comprehension of the course	1. Students are comprehending 2. They do the activities correctly 3. They answer the teacher's questions correctly		

Appendix 02

Classroom Observation Checklist

Teacher: **Date:**

Observer: **Time:**

Class Observed (Section):

Items to be observed	Characteristics	Yes	No
Classroom atmosphere	1. The classroom is well arranged 2. The classroom is provided with the needed equipment 3. Students feel comfortable in the classroom		
Students' engagement	1. Students are motivated 2. Students do the required tasks 3. Students are participating and involved		
Time management	1. The teacher allocates time to warm up the students 2. Time allocated to explanation is sufficient 3. Time allocated for activities is sufficient		
Students' attitudes towards CALL	1. Students show positive behaviour 2. Students are interested in the use of CALL 3. Students find it an effective strategy		
Students' comprehension of the course	1. Students are comprehending 2. They do the activities correctly 3. They answer the teacher's questions correctly		

Appendix 03

Teachers' Interview

1. At the first place, would you please tell me about the research methodology as a new module for second year students?
2. How do you deal with students in order to facilitate the delivered information and make them comprehend?
3. What do you think about the adopted method of teaching research methodology course at our university?
4. Do you rely on ICTs in your teaching?
5. Do you think that the use of computer was an effective method in order to raise the students' comprehension of RM? Why?
6. How did you find the students' attitudes towards the use of ICT tools during the session?
7. What about the lack of equipment at our university? Since we have seen that the laboratory was not available to have access to computers.
8. How did you feel about the results achieved through the use of ICTs? Are you satisfied?
9. Do you advise other teachers to adopt the use of computer-assisted language learning as a teaching strategy to foster the students' comprehension?
10. Is there anything left you want to add?

Appendix 04

Teachers' Interview

Rubric One: Teachers' career

1- At the first place, how did find yourself with English language teaching as a profession?

2- What is your academic degree?

3- How long have you been teaching English?

Rubric Two: Research Methodology Teaching

1- Have you taught research methodology before? Would you please tell me about it as a new module for second year students?

2- In your opinion, how should the teacher deal with students in order to facilitate the delivered information and help them understand?

3- What do you think about the adopted methods of teaching research methodology in our university, which are mainly traditional methods based on the theoretical technique of teaching?

4- Are they effective enough?

5- If not, what would you suggest as a new and more effective method of teaching research methodology?

Rubric Three: The use of ICTs in teaching

1- Do you rely on ICT technologies in your courses? What type and for what purpose?

2- Do you think that the use of ICTs namely the computer is an effective method to help raise the students' comprehension of RM? Why?

3- How did you find the students' attitudes towards the use of ICT technologies during the session?

4- In your opinion, what are the main obstacles faced by the teacher in teaching RM course?

5- How do you feel about the results achieved through the use of the technologies? Were you satisfied?

6- Do you advice other teachers to adopt the use of computer assisted-language learning as a teaching strategy to foster the students' comprehension?

❖ Is there anything left you want to add?

Thank you for your time and collaboration we really appreciate that.

Appendix 05

Students' Focus Group Discussion

1-So, what are your general thoughts about the research methodology course? Do you enjoy this session "RM"? Do you find it a beneficial module for your learning Career? Do you comprehend the delivered lectures in this module?

2-Previously, you have seen the lecture of APA and MLA guidelines. To what extent you have understood this lecture? I mean theoretically while the teacher was explaining before the use of computer and any practice.

3- During the first sessions, before you get practice; could you say that you were satisfied with the way of delivering lectures? I mean the theoretical way of teaching with no practice.

❖ If no, why? What you were not satisfied with exactly?

4- If you were in the teacher's place, how would you teach such module in order to assure your learner's comprehension?

5- How about the use of CALL which means the use of the computer as a teaching tool to foster the comprehension? Do you find it beneficial?

6-In your situation it was supposed to have sessions in the lab, but due to certain technical problems it was not possible and you have been bringing your own PCs for several sessions. What you can say about this issue? Which is mainly a lack of needed equipment in our university.

7-Could you mention any difficulties you have faced while you start practicing during lectures? Whether concerning the physical setting, the group work, or in the use computer itself.

8- It has been assumed that the practice through the use of CALL helps learners to comprehend their theoretical lectures. Do you agree? How?

9- Suppose that you did not get practice, were you able to comprehend through theoretical lectures only or you needed PC and practice to understand?

❖ Is there anyone wants to suggest or add something before we end up?

Appendix 06

Students' Focus Group Discussion

Rubric One: students' thoughts about the adopted method of teaching RM

1-So, what are your general thoughts about the research methodology course?

2-Do you enjoy this session RM "Research Methodology"?

3-Do you find it beneficial module for your learning Career?

4-Do you comprehend the delivered lectures in this module?

5-Previously, you have seen the lecture of APA and MLA guidelines. To what extent you have understood this lecture? I mean theoretically while the teacher was explaining before the use of computer and any practice.

6-During the first sessions, before you get practice; could you say that you were satisfied with the way of delivering lectures? I mean the theoretical way of teaching with no practice.

   ❖ If no, why? What you were not satisfied with exactly?

7-If you were in the teacher's place, how would you teach such a module in order to assure your learner's comprehension?

Rubric Two: the students' attitudes towards the use of CALL in RM course

1- How about the use of CALL computer-assisted language learning, which means the use of the computer as a teaching tool to foster comprehension? Do you find it beneficial?

2- In your situation, it was supposed to have sessions in the lab, but due to certain technical problems it was not possible and you have been bringing your own PCs for several sessions. What you can say about this issue? Which is mainly a lack of needed equipment in our university.

3- Are you familiar with the use of the computer?

4- Could you mention any difficulties you have faced while you start practicing during lectures? Whether concerning the physical setting, the group work, or in the use computer itself.

5- It has been assumed that the practice through the use of CALL helps learners to comprehend their theoretical lectures. Do you agree? How?

6-Suppose that you did not get practice, were you able to comprehend through theoretical lectures only or you needed PC and practice to understand?

❖ Is there anyone wants to suggest or add something before we end up.

الملخص

يعتبر درس منهجية البحث من أحد أهم الدروس في منهج تدريس الانجليزية كلغة أجنبية بجامعة بسكرة. إذ أنه يعلم متعلمي اللغة الإنجليزية كلغة أجنبية أن يكونوا منطقيين في تفكيرهم، ويعلمهم كيفية تنفيذ أفكارهم، كما أنه يوجههم خلال إجراء أبحاثهم الأكاديمية. ومع ذلك، فإن الطريقة المعتمدة لتدريس هذا الدرس بجامعة بسكرة والتي هي نظرية بحتة، قد تخلق صعوبات في الفهم لدى المتعلمين. ولهذا اقترحنا في هذه الدراسة دمج تعلم اللغات بمساعدة الكمبيوتر كاستراتيجية تدريس لتعزيز فهم المتعلمين لدرس منهجية البحث. اعتقادا أن الممارسة باستخدام أجهزة الكمبيوتر قد تعزز فهم الطلاب، من هنا يهدف هذا البحث إلى دراسة فعالية الاستراتيجية المقترحة لتعزيز فهم الطلاب لدرس منهجية البحث، والتي هي عملية بطبيعتها. في هذه الدراسة، نفترض أن تدريس منهجية البحث بالطريقة النظرية قد يعيق عملية فهم الدرس ويمنع الطلاب من الوصول إلى أهدافهم الأكاديمية. لهذا السبب، اقترحنا فرضية أخرى افترضت أنه بالإمكان تعزيز فهم المتعلمين لدرس منهجية البحث بمساعدة الكمبيوتر. وللتحقق من صحة فرضياتنا المقترحة، اخترنا منهج الطريقة المختلطة. وفي هذا المنهج، تم استخدام ثلاث طرق لجمع البيانات للتحقيق في مواقف المتعلمين والمدرسين تجاه دمج تعلم اللغة بمساعدة الكمبيوتر كاستراتيجية تعليمية لتعزيز فهم الطلاب لدروس منهجية البحث. الأدوات المستخدمة هي الملاحظة بالقسم، والتي كانت ملاحظة غير مشاركة حدثت داخل الاقسام التقليدية وكذا ضمن استراتيجية تعلم اللغة بمساعدة الكمبيوتر. مقابلة شبه منظمة مصممة للمعلمين، ومجموعة مناقشة مطبقة على عينة تتكون من ثمانية طلاب (قسم اللغة الإنجليزية، السنة الثانية بجامعة محمد خيضر ببسكرة). بعد تفسير البيانات التي تم جمعها، بينت النتائج أن الطلاب واجهوا صعوبات في فهم دروس منهجية البحث بواسطة الطريقة النظرية. علاوة على ذلك، أظهرت النتائج أن استخدام الكمبيوتر يساعد في تعزيز المتعلمين في فهم درس منهجية البحث. نتيجة لذلك، تم التحقق من صحة الفرضيات المقترحة.

الكلمات المفتاحية: تعلم اللغة بمساعدة الكمبيوتر، درس منهجية البحث، فهم الدروس، اللغة الإنجليزية كلغة أجنبية، استراتيجية التدريس، تكنولوجيا المعلومات والاتصالات.

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Résumé

Le cours de la méthodologie de recherche est l'un des plus important cours du programme d'enseignement des langues étrangères à l'Université de Biskra. Elle inculque aux apprenants de l'ALE (l'Anglais Langue Etrangère) à être logique dans leur raisonnement et leur enseigne à mettre en évidence leurs pensées, elle les oriente durant leur processus de recherche académique. Cependant, pour enseigner ce cours à l'Université de Biskra, la méthode adoptée, qui est purement théorique, peut créer des difficultés de compréhension auprès des apprenants. Ainsi, dans la présente étude, nous avons suggéré l'intégration de l'apprentissage linguistique assisté par ordinateur CALL, en tant que stratégie pédagogique pour favoriser la compréhension de la méthodologie de recherche chez les apprenants. A savoir qu'une classe utilisant des ordinateurs peut renforcer la compréhension des étudiants. C'est pourquoi, la présente recherche vise à étudier l'efficacité de la stratégie proposée pour améliorer la compréhension du cours de la méthodologie de recherche, qui est pratique dans sa nature. Dans la présente étude, nous émettons l'hypothèse que l'enseignement du cours de la méthodologie de recherche peut entraver le processus de compréhension du cours et empêcher les étudiants d'atteindre leurs objectifs académiques. Pour cette raison, nous avons suggéré une autre hypothèse selon laquelle la compréhension du cours de méthodologie de recherche pourrait être favorisée par l'usage de l'apprentissage linguistique assisté par ordinateur. Afin de vérifier la validité de nos hypothèses suggérées, nous avons préconisé une approche mixte. En rapport avec cette approche, trois manières de collecte de données ont été utilisées pour étudier l'attitude des enseignés et celle des enseignants vis à vis de l'intégration de l'apprentissage des langues assisté par ordinateur comme stratégie d'enseignement pour améliorer la compréhension de la méthodologie de recherche. Les outils utilisés sont l'observation en classe, qui était une observation non participante qui a eu lieu au sein des classes traditionnelles ainsi que dans l'intégration de la stratégie CALL. Un entretien semi-structuré organisé avec les enseignants et une discussion dirigée auprès d'un échantillon de huit étudiants (Département d'anglais de deuxième année à l'Université Mohamed Khider de Biskra). Suite aux données collectées, les résultats révèlent que les étudiants trouvent des difficultés à comprendre les cours magistraux de la méthodologie de recherche par la méthode théorique. Par ailleurs, les résultats ont montré que l'apprentissage des langues assisté par l'ordinateur soutenait les apprenants à appréhender le cours de la méthodologie de recherche. En conséquence, les hypothèses suggérées sont validées.