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An Investigation on the Role of Computer Literacy Skills in Improving EFL Learners' Research Paper Quality

The Case of Master EFL Students at Biskra University

Dissertation submitted in fulfilment of the requirements for a master degree in science of language

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Declaration

I, **AISSAOUI Meriem**, do hereby declare that this submitted work is my original work and has not previously been submitted for any institution or university for a degree. I also declare that a list of references is provided forward indicating all the sources of the cited and quoted information. This work was certified and completed at Mohammed KHEIDER University of Biskra, Algeria.

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Dedication

I Dedicate This Work to My Beloved Family and To All My Lovely Friends

Whom I Really Love.

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Abstract

The use of computers is one of the most important tools for conducting and writing a research. Thus, the current study seeks to explore EFL student's and teacher's perceptions of the effectiveness of the computer literacy skills in developing research papers. More specifically, it aims to explore the main difficulties EFL learners at Biskra university face in both levels of research, the research process and product, and to investigate the role of computer literacy skills in enhancing their research papers quality. We hypothesize that with the help of computers as an acceleration tool, learners will be able to improve their research papers quality. We also hypothesize that students' and teachers' attitudes are positive towards the use of computer literacy skills in research. To check out the validity of our suggested hypothesises, we opted for a qualitative approach. In relevance to this approach, two data collection methods were used to investigate learners' and teachers' attitudes towards the role of computer literacy skills in research process and the development of the quality of students' research papers. An online questionnaire was directed to EFL students and another to EFL teachers at Biskra university to discover their views and perceptions of our research concern. The findings of this study showed that the students face difficulties in conducting their research for different factors such as the unavailability of research facilities and outdated sources in the library. Moreover, It was also revealed that most English language students and teachers have positive attitudes towards the use of computer literacy skills helps in facilitating the learners' research process and ameliorating their research papers quality. Hence, the suggested hypotheses were validated. Based on the results of this study, some recommendations for the integration of computer technology were proposed in the end of this dissertation.

Keywords: Computer Literacy, Research Quality, Research Papers

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List of Abbreviations and Acronyms

CLS: Computer Literacy Skills

EFL: English Foreign Language

etc: Et Cetera (And So On, And So Forth).

H: Hypotheses

ICT: Information and Communication Technologies

i.e.: Id Est (In Other Words)

PhD: Doctor of Philosophy

PDF: portable data format

RQ: Research Question

SPPS: Statistical Package for Social Sciences

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GENERAL INTRODUCTION

1. Study background

ICTs have become commonplace entities in all aspects of life. The use of new technologies is highly required in 21st century. Its use in the English language learning and teaching process is increasing. Because of Technology, there has been important changes in the way teachers teach and students learn. It changed the traditional teaching methods from face to face classrooms into instructive ones. In higher education, English as a foreign language, (EFL) learners are supposed to foster their language learning' and research skills by learning from different sources, adopting distinctive strategies and count on efficient tools such as computers. This latter become an ordinary in our daily and professional life. It is an electronic machine that processes, stores, and retrieves information quickly and automatically, and it is often used in the context of a research which is a cyclic process that varies in terms of number, type, complexity of activities depending upon the number of questions posed, methodology used and outcomes expected. Computer technology resources (e.g., software and applications) change and update rapidly. Understanding computer skills and concepts allowed people to encounter technology use with ease. In addition, some people believed that students could achieve computer literacy simply by using computer resources offered around schools and elsewhere. Computer literacy has been defined as the ability to use computers and related technology. Using these technologies, the researchers can collaborate more widely and effectively While conducting research, all researchers are involved in activities such as writing proposal, collecting, and analysing data, developing theoretical knowledge etc.

2. Statement of The Problem

Technology has become the new backbone in everyday life, especially in educational settings. At university, ICT plays a major role mainly in learners' learning process and particularly in their research procedure. Although the University is expected to provide

learners with computation workshops, ICT sessions, internet lab…etc, master EFL learners at Biskra university still face difficulties in using their ICT devices when conducting their researches from the very first step till the submission of their research projects. It was observed that many university learners still do not have the proper knowledge and skills for using the computer. They are not able to manage the basic computer skills like using the off-the-shelf software packages like Microsoft office word, excel, PowerPoint, SPSS ...etc, and they are not competent in the use of ICT-based research tools such as the research engines. All the above-mentioned problems can be attributed to the unavailability of the necessary computer materials in the department's lab, and internet access issues inside the university, in addition to the insufficient time devoted to the workshops and ICT sessions, and outdated references in the department library.

In this respect, the current study is to understand why EFL learners face such difficulties and how they perceive these difficulties and the importance of computer literacy skills in this concern. research paper quality.

3. Aims of The Study

The main objective of the present study is to investigate the role of learners' computer literacy skills in enhancing their research papers quality. This study also aims at exploring the main difficulties learners face in both levels of research (the research process and product). Finally, it seeks to explore teachers' and students' attitudes towards the use of computer literacy skills to improve EFL learners' research papers quality.

4. Research Questions

This research seeks to answer the following research questions:

RQ1: Do computer literacy skills provide solutions to ameliorate learners' research papers' quality?

RQ2: In which level of research EFL learners face difficulties?

RQ3: What are students' attitudes towards the use of computer literacy skills in research?

RQ4: What are teachers' attitudes towards the use of computer literacy skills in research?

5. Research Hypotheses

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

RH1: it is hypothesised that with the help of computer literacy skills, learners will be able to improve students' research papers quality.

RH2: EFL learners face difficulties at the level of research process and research product

RH3: it is hypothesised that students' attitudes are positive towards the use of computer literacy skills in research

RH4: it is hypothesised that teachers' attitudes are positive towards the use of computer literacy skills in research

6. Research Methodology

6.1.Research approach

This study is an attempt to understand the role of computer literacy skills in the EFL context. In line with this research aim, the qualitative approach is followed to meet the research needs of this descriptive study that belongs to social and human sciences.

6.2.Research Design(s) / strategy(ies)

The present study opted for a small-scale study. The research design is based on two main data gathering tools; a semi-structured questionnaire with teachers that consists of several questions to get a variety of dissimilar responses, as well as their attitudes and opinions; in

addition to a semi-structured questionnaire for students including multiple-choice and close-ended and open-ended questions.

6.3.Data Collection Tools

In this study, the researcher used two questionnaires.

Teachers' questionnaire

Teachers took a semi-structured questionnaire which consists of close-ended, open-ended, and multiple-choice questions. It aimed to get reliable and honest responses. In addition, it is a tool to collect data and more insights about EFL teachers' opinions about computer literacy skills and learners' research quality besides their attitudes towards the major role computer literacy skills play in enhancing EFL learners' research papers quality.

Students' Questionnaire

The researcher used a semi-structured questionnaire which consists of close-ended, open-ended, and multiple-choice questions. This questionnaire sought to highlight the main complications that EFL learners encounter when using their computers to write their research papers, and to identify whether the suggested tool will contribute to the enhancement of learners' research papers quality.

6.4.Data Collection Procedures

To accomplish the aims of this study, the researcher followed two procedures. First, the researcher administered a semi-structured online questionnaire to EFL teachers at Biskra University. Second, a contributed semi-structured online questionnaire was administered to EFL Master students.

6.5.Data Analysis and Procedures

After collecting the necessary data and having the final results, the researcher analysed the data through a descriptive analysis for both questionnaires and to get more insights about learners' and teachers' attitudes towards the role of computer literacy skills in the amelioration of EFL learners' research paper quality.

7. Population and Sample

EFL master students at Biskra university are the population of this study (N=165). The target population was selected for numerous reasons including that they are expected to have more access and experience with research and ICT devices. Moreover, these students are thought to be more familiar with writing research papers for academic purposes. The researcher worked with n=61 . In addition, the researcher chose fifteen teachers (n=15) from a population of fifty teacher (N=50) for the above target aim.

8. Sampling Techniques

In this study, the researcher opted for the simple random sampling technique due to the fact that it is the most straightforward sampling strategy. In simple random sampling, each member of the population is equally likely to be chosen as part of the sample (equal chances). Besides, it can be useful for our research nature and objectives because it may minimize bias from the selected procedures.

9. Significance of The Study

This research study will contribute in raising the EFL learners' awareness about the use and importance of the ICT tools, mainly computers, in the learning process, as well as research process and product. Moreover, the findings of this study may offer solutions for research problems among learners. It will propose the integration of workshops and ICT sessions; in

addition to designing and assigning activities and tasks that make learners engaged to use their computers to help them develop their computer literacy skills. Finally, there is limited number of research studies which dealt with this topic in Algeria. This study is an attempt to fill this gap in literature. Many studies have been conducted on the computer literacy skills, but it is rarely related to the research quality.

10.Structure of The Study

This research is be divided into two main parts: A theoretical part and the practical part. the former is devoted to the literature review. It consists of two main chapters: the first chapter presents an overview about research papers quality; the second chapter tackles the computer literacy skills. The later part is devoted to the field work and data collection, analysis, and discussion. For more details, the categorization is as follows:

The first chapter is an attempt to provide an overview on research and research papers. It is divided into two sections; the first section addresses research definition, significance, purpose, benefits, objectives, types, characteristics, and criteria of research. In addition, it sheds light on educational research, and research in foreign language teaching. The second section deal with the perception of quality, definition of research paper, its elements, characteristics, and types.

The second chapter attempts to provide a deep clarification about computer literacy. It tackles the Definition of ICT and computer. Then it gives an overview about the definition of computer literacy and its history. Also shed light on teaching computer literacy and its assessment. furthermore, it lists the Importance of computer literacy in research and EFL learning and teaching, and Importance of being computer literate. Then it spots light on some of the Factors that affect the Utilization of Computer.

The last chapter started with literature review about the research methodology adopted for this study namely, research approach and research design. Then, it deals with data

collection, analysis, and interpretation. It is based on the use of one data collection methods (two online questionnaires).

11.Definition of the key terms

11.1. Computer literacy :

Computer literacy is to able to operate a computer and its associated software and hardware, and to understand most of the underlying concepts. It includes basic computer operation skills such as knowing how to use a keyboard and mouse, and more advanced concepts such as programming skills. As It includes also the knowledge of the capabilities, characteristics, and context of the computer like general computer terminology and software concepts.

11.2. Research quality:

Research which bears all the characteristics which are required by its users. It may have internally and externally valid research design, reliable data sources, free from plagiarism practices, application of appropriate tools, and meaningful interpretation of results in practical and statistical terms.

11.3. Research paper :

research paper is a written report where the researcher uses his own expressions that demonstrates the achieved conclusions which are result of a careful investigation of a topic using certain techniques of gathering, analysing, and evaluating data

CHAPTER ONE: RESEARCH PAPER

QUALITY

Table of Content

Introduction

This chapter is an attempt to provide an overview on research and research papers. It is divided into two sections; the first section addresses research definition, significance, purpose, benefits, objectives, types, characteristics, and criteria of research. In addition, it sheds light on educational research, and research in foreign language teaching. The second section deals with the perception of quality, definition of research paper, its elements, characteristics, and types.

1.1. Definition of Research

Research is about moving from the known to the unknown. In general, it is collecting data to draw on new knowledge and solve problems. It has numerous definitions that may differ from one author to another. Each scholar defines it according to his own perspective. Some of them give a general definition while others present technical meanings. The following are some of these definitions:

Pathak (2008) divided research into two parts re (again and again) and search (to find out). Research is observing a phenomenon repeatedly, collecting data and based on the findings the conclusion is drawn.

Besides, Fred and Perry (2005, p.8) claims that, "research is the process whereby question raised and answers are sought by carefully gathering, analysing and interpreting data". Research simply seeks to answer questions which have not been answered yet through ordered steps to come up with efficient answers.

Similarly, Kothari (2004, p.1) defines research as follows," a scientific and systematic search for pertinent information on specific topics". Then, he adds that "research refers to the systematic method consisting of expressing the problem, formulating a hypothesis, collecting the facts and data, analysing the facts and reaching certain conclusion". Thus, research is

scientific inquiry and a careful investigation which is conducted in a systematic way to find new knowledge and facts.

However, Dornyei has a different view about the definition of a research. He says that "a research simply means trying to find answers to questions, an activity every one of us does all the time to learn more about the world around us" (2007, p. 15). Thus, research is simply a careful process that begins with observation of some phenomena and through the systematic collection, analysis, and interpretation of data to contribute to the advancement of knowledge and wisdom.

1.2. Significance of Research

The field of research has a major role in social sciences, since it works as solution maker to different problems. It is significant because it functions as a starting point to find answers to many queries and questions that are results to many factors.

Kothari (2004, pp. 5-6) suggests series of significance of research. He shows that the role of research in several fields of applied economics, whether related to business or to the economy, has greatly increased in modern times because it acts as a helper to solve government economic problems. It has its special significance in solving various operational and planning problems of business and industry; and it replaces intuitive business decisions by more logical and scientific decision. Research is also equally important for social scientists in studying social relationships and seeking answers to various social problems.

Furthermore, according to Kothari, research means different things to different people. It may mean careerism or a way to attain a high position in the social structure, a source of livelihood, the outlet for new ideas and insights, the development of new styles and creative work, and the generalizations of new theories.

The purpose of academic research is to seek the truth and new knowledge which enhances social development. It is the ground of any invention, creation, and innovation in all fields such as education, economy, industry, or business.

1.3. The Purpose of Research

Research is generally conducted for obtaining new knowledge, answering some questions, or solving deficiencies to a particular problem. While conducting a research, researchers must have a belief that they have something to prove and a result to reach.

According to Collis and Hussey (2003), the purpose of the research is to review or synthesize existing knowledge; to investigate existing situations or problems. It is also to provide solutions to problems, and to explore and analyse more general issues. In addition, it is to construct or create new procedures or systems, explain new phenomenon, and generate new knowledge. as it may also be combination of any of the above.

The purpose of a study should improve existing techniques and develop new instruments, and discover previously unrecognized substances or elements. It also should clarify the final conclusions that the research study hopes to achieve, as well as It needs to satisfy researcher's craving for more understanding and to improve his judgment.

1.4. Benefits of a Research

The researcher knows why his work is important and what he wants to obtain and achieve during his research. The research will be beneficial from the very first step of gathering data, and preparing it until the final conclusion.

Laraswati (2014) points out some of the benefits that the researcher will obtain from conducting such work. Laraswati summarized them in the following points:

• Finding and understanding raw data and information

• Formulating informed opinions through study of research findings

• Entering the discourse, or conversation, of other writers and scholars in your field

• Learning how others in your field use primary and secondary resources

• Research expands and arguments your experiences and knowledge

• Enables you to become an expert in areas not directly related to your everyday life

• When you engage in research, you build valuable critical skills that serve you another area of life

• You learn to ask, probing and thoughtful questions, gather and interpret data, read critically, form intelligent opinions, manage, and understand conflicting information

• As you do research in your chosen specialization, you become an expert in that area

• When you write about your discoveries, others come to respect your knowledge and value your opinion.

To sum up, conducting research is beneficial and very important. It will foster self-learning, build, and expand knowledge and provide deeper understanding of the subject. It is considered as a key to understand different issues and find flaws in others researches and increase awareness.

1.5. Objectives of Research

Research objectives are the researcher expectations in achieving or obtaining useful and interesting knowledge through conducting research. Despite the objectives may vary from one to another, but they all meet on common aim which is the discovery of buried facts.

Kothari (2004, p.2) Summarizes some objectives of research. He stated that the objective of research are to gain familiarity with a phenomenon or to achieve new insights, o portray accurately the characteristics of an individual and situation or a group, to determine the frequency with which something occurs or with which it is associated with something else, and To test a hypothesis of a causal relationship between variables.

To sum up, the research objectives are to investigate a subject logically and objectively by collecting data regarding the problem carefully (recording, reporting, and presenting the facts as it is).

1.6. Characteristics of Research

A good research necessitates certain characteristics that classify it as a proper way of gaining reliable knowledge. Knowing research characteristics contributes in the improvement of its quality and directs the researcher to write a good research.

Singh (2006, p. 4) presents the general characteristics of research stating that research is logical, objective, and Systematic investigation and collection of new knowledge from different reliable sources to discover general principles and support hypothesis. It is carefully recorded and reported; and cautiously generalized.

O'Leary (2004), however, proposes that the characteristics of a good research are as what appears in the following table:

Table 1.: Characteristics of good research drawn upon O'Leary (2004, P.56)

Feature	**Meaning**
Research is authentic and valid this is a vital feature that ensures a trusting gathered knowledge.	**Credibility**
It is concerned with a distance between a researcher and his study which indicates that the findings are completely free of personal subjectivity and bias as a matter of neutrality.	**Objectivity**
It is an assurance that the tools used in the study will generate consistent finding.	**Reliability**

It is of crucial importance since it guarantees the researcher's consistency; indeed, findings must constitute with raw collected data.	**Dependability**
This means that any conclusion drawn at the end of research has to be trustworthy.	**Validity**
It is directly related to originality, truth, and undisputed probe.	**Authenticity**
It is the applicability of research findings in other different research settings and population. It specifies researches with large sample to determine whether the sample speaks to the whole population beyond the immediate circumstances.	**Generalizability**
The researcher needs to provide a fully detailed explanation of methods so that readers trace the research context.	**Auditability**
It is an indicator that a research can be replicated in order for the findings to be verified.	**Reproducibility**

Since research is a process of gathering, collecting, analysing, and interpreting data to solve a particular problem, to reach certain objectives, and achieve the required purposes; it certainly needs to be characterized with certain traits that engage in Its quality.

1.7. Criteria of Academic Research

There is a number of criteria that are used to evaluate the research quality. Kothari (2004, p.20) identifies some criteria to carry on a good research project. These qualities of a good research are systematic, logical, empirical, and replicable.

First, Good research is systematic because it is structured with specified steps to be taken in a specified sequence in accordance with the well-defined set of rules. Systematic characteristic of the research does not rule out creative thinking but it certainly does reject the

use of guessing and intuition in arriving at conclusions. Second, Good research is logical cause it implies that research is guided by the rules of logical reasoning and the logical process of induction and deduction are of great value in carrying out research. Induction is the process of reasoning from a part to the whole whereas deduction is the process of reasoning from some premise to a conclusion which follows from that very premise. In fact, logical reasoning makes research more meaningful in the context of decision making. Next, Good research is empirical for the research that It implies that research is related basically to one or more aspects of a real situation and deals with concrete data that provides a basis for external validity to research results. Finally, Good research is replicable when it allows results to be verified by replicating the study and thereby building a sound basis for decisions.

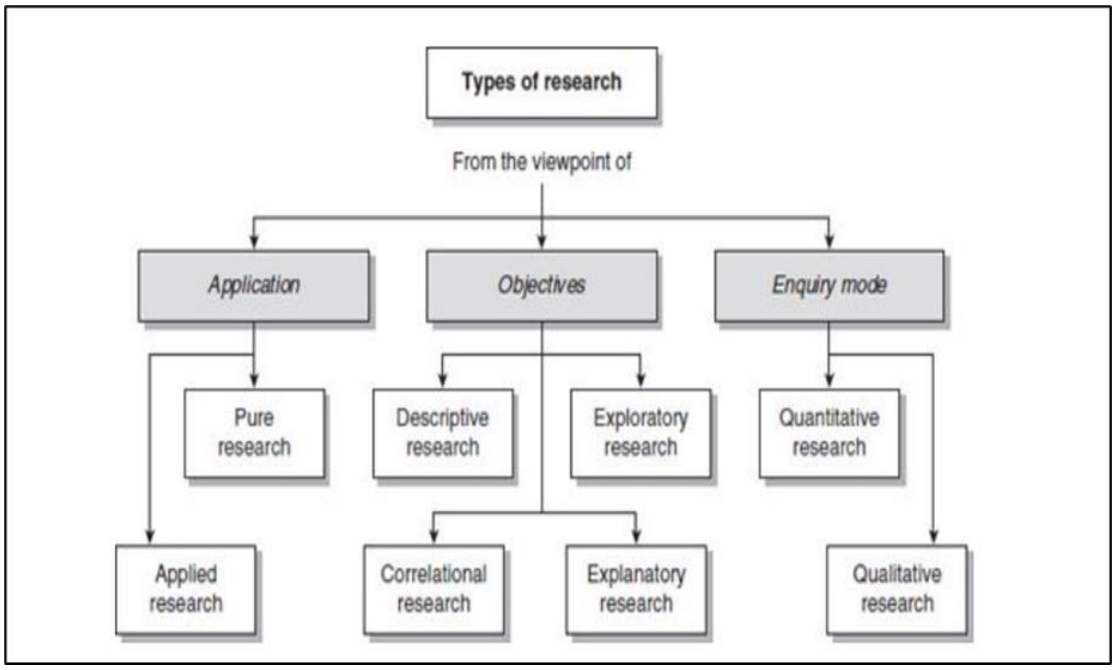
1.8. Types of research

Research has different types, and it is divided and categorized based on what the research is willing to prove and the tools he is going to use.

According to Kumar (2011), the types of research can be looked at from three different perspectives.

- Application of the findings of the research study;
- Objectives of the study;
- Mode of inquiry used in conducting the study.

Figure 1:Types of Research (Kumar, R., 2014, p.8)



1.8.1. From the Application Perspective

It underlies two main types, Pure and Applied Research

1.8.1.1 Pure Research

The pure research is known as fundamental or basic research. It is conducted without setting any previous goals. It is only for the sake of gathering information and getting knowledge about phenomena that may or may not have applications in the near future (Chelli 2017).

Similarly, Kothari (2004, p.8) stated, "Gathering knowledge for knowledge's sake is termed 'pure' or 'basic' research". It is mainly concerned with generalizations and with the formulation of a theory. This kind of research aims to make researchers find answers for why things happened it is driven purely by curiosity and a desire to expand knowledge.

1.8.1.2 Applied Research

A contrary type to pure research, applied research demands planning goals in order to solve the research problem. Most of the research in social sciences is applied. It is about to put into application the founded knowledge

Kothari (2004, p.3) stated that applied research is the type that aims to find a solution for an immediate problem facing a society or an industrial/business organization. It also seeks to discover a solution for some pressing practical problem, because it relies on many fields such as education, medicine, agriculture, and technology.

1.8.2. From the Objective Perspective

There are four types under this perspective which are:

- Descriptive
- Explanatory
- Correlational
- Exploratory

1.8.2.1 Descriptive Research

This type describes attitudes towards an issue or state the phenomena as it exists in nature. Kumar (2011, p.9) states that descriptive study attempts to describe systematically a situation, problem, phenomenon, service or programme, or provides information about, say, the living conditions of a community, or describes attitudes towards an issue". This research type involves an in-depth study of an individual or group of individuals.it includes surveys, facts, finding enquiries of different kinds. It includes surveys and fact-finding enquiries of different kinds. The researcher tries to answer the questions who, what, when, and how, as well as, he has no control over the variables e.g. where current practice is described in detail.

1.8.2.2 Explanatory Research

This research goes beyond description of a phenomenon. It does not only stop in what is happening, but it tries to explain why and how it is happening. The researcher attempts to investigate and analyse the reasons for a phenomenon that has been only described and what caused it to occur through measuring relations between the variables.

According to Grinnell (2001), "the explanatory research is when trying to determine the causal relationship between the independent and dependent variable" (p, 255). Therefore, explanatory researches are usually experimental in nature and can be conducted using the Case study method, the survey method, and the observational method. It tries to determine whether one variable is caused by another. It seeks to test whether a certain study worth to be conducted or not.

1.8.2.3 Correlational Research

This type of research is conducted to discover the existence of relationship, association, or an interdependence between two or more variables using specific techniques as locating, evaluating, systematically interpreting, and analysing of sources data found. Kumar (2011; p.9) declared," The main emphasis in a correlational study is to discover or establish the existence of a relationship/association/interdependence between two or more aspects of a situation". Then he adds," These studies examine whether there is a relationship between two or more aspects of a situation or phenomenon and, therefore, are called correlational studies." Thus, the researcher tries to define and determine the degree of this relation if it exists as well as the change in one variable does not lead to a change in the other.

1.8.2.4 Exploratory Research

This type of research intends to give clear idea about a problem which has not been done yet rather than giving a final solution to an existing one. It gives valuable amount of

information about a concept to shed light on further studies. The researcher undertakes such research to explore an area about where she/he has little or no knowledge about.

Kumar (2011, p.30) claimed, "This is when a study is undertaken with the objective either to explore an area where little is known or to investigate the possibilities of undertaking a particular research study. When a study is carried out to determine its feasibility it is also called a feasibility study or a pilot study." Then he adds, "a small-scale study is undertaken to decide if it is worth carrying out a detailed investigation. Based on the assessment made during the exploratory study, a full study may eventuate. Exploratory studies are also conducted to develop, refine and/or test measurement tools and procedures". This type of research resembles the correlational research in studying relationship between variables, but it is only specified in explaining why and how does this relationship exist.

1.8.3. From the Mode of Inquiry Perspective

Figure 2: Characteristics of quantitative and qualitative research (Mackey, A., &Gass, S.M., 2016, p.2)

Quantitative Research	*Qualitative Research*
• Obtrusive, involving controlled measurement	• Naturalistic and controlled observation
• Objective and removed from the data	• Subjective
• Verification oriented, confirmatory	• Discovery oriented
• Outcome-oriented	• Process oriented
• Reliable, involving "hard" and replicable data	• "Soft" data
• Generalizable	• Ungeneralizable, single case studies
• Assuming a stable reality	• Assuming a dynamic reality
	• Close to the data

1.8.3.1 Quantitative Research

Quantitative research is usually detailed and can be quantified or measured and presented statistically. Vanderstoep and Johnston (2009, p.7) stated that quantitative research

specifies numerical assignment to the phenomena under study. It is applicable to phenomena that can be expressed in terms of quantified data to generalize the findings from the sample under the study over the whole population. Quantitative research involves collection and analysis of numerical data and application of statistical tests.

1.8.3.2 Qualitative Research

Qualitative research is more subjective in nature. It is concerned with the quality and kind-related aspects. It seeks to describe a phenomenon that already exists. It aims to discover the attitudes, perceptions, opinions, feelings, desires, and the underlying motives of people about a subject in order to gain an understanding of social and human activities; using certain data collection tools such interviews, questionnaires, and focus groups. The findings of qualitative research will not be generalized because it only produces a textual description of the issue under investigation(as cited in Mpra.ub.uni-muenchen.de).

1.9. Educational Research

The educational research is often defined as a process of finding solutions to problems that has to do with education. It attempts to describe currents problems in education to improve the educational system. Its purpose is to improve practices, to add knowledge to help facilitate the learning process, to Address Gaps in Knowledge, expand it, replicate it, and develop it.

According to Anderson & Arsenault (1998, p. 6), "Research in education is a disciplined attempt to address questions or solve problems through the collection and analysis of primary data". It means the used techniques, courses, and materials in the educational system is changing progressively through time in order to develop new tools and methods for learning process for the sake of enhancing it.

Similarly, Bassey (1999, p. 39) asserts: "Educational research is critical enquiry aimed at informing educational judgements and decisions in order to improve educational action". Thus, educational research explores any issue that is related to education such as development,

teacher, training, student learning, teaching methods and the like of educational issues for the sake of improving it and boost the quality of teaching and learning.

1.10. Research in Foreign Language Teaching

Research is generally conducted to figure out how something works, why it went wrong, what may happen if it is taken in a certain or different way. Research in foreign language education seeks to discuss and find efficient and pedagogical solutions to problems that faces EFL teachers and students. These problems have to do with learning and teaching a foreign language such as English language. This type of research investigates various domains such as language acquisition, foreign language learning strategies, effective characteristics of a learner, younger learners, and the components of foreign language proficiency. The ultimate goal of this research is to improve the quality of the learning and teaching process. (as cited in Pokrivčáková et al, 2012)

2.1Definition of Research Quality

According to Oxford Advanced Learners' Dictionary (2010, p. 1198), the word quality means "a feature of something, especially one that makes it different from something else". Thus, what makes the research quality good is set of criteria that Kothari has mentioned in his book which are systematic, replicable, empirical, and rigorous. (2004)

As Fink (1998, p.36) identified the major characteristics of the research as follows:

> The quality research is that research which bears all the characteristics which are required by its users. It may have internally and externally valid research design, reliable data sources, free from plagiarism practices, application of appropriate tools, and meaningful interpretation of results in practical and statistical terms.

Thus, the research quality is the main characteristic which is required by researchers. Good research means valid, reliable, accurate, verifiable, critical, objective and its findings may be generalised. Good quality research affords evidence that is robust, ethical, and should stick to the principles of professionalism, transparency, accountability, and auditability.

2.2Definition of research paper

Research paper has been defined from various points of view but generally it is considered as one of the different ways of research. It is an academic piece of writing and has been adopted as a teaching or assigning technique. As it demonstrates also what students have learned from their courses utilising their own words precisely and concisely using different sources such books and articles.

Shewan (2000) mentioned the characteristics of the research papers, he claims that "a research paper deals with limited topics and is based on information gathered from documents, books, periodicals, [....] with experts in particular area of knowledge" (p.1). Thus, Research papers discuss particular topics and It is conducted through cautious data analysis and evaluation to achieve certain purposes using different sources

Similarly, Singh (2006, p.259), "A research paper has to present a number of opinions as expressed by others or researcher himself. It is necessary to document those opinions of others by pin-pointing their sources so that anyone if in doubt can 'verify any of them'". In other words, Research paper is an effective way to show different perspectives and points of view of others about certain topic or domain, and the used documents and sources need to be cited and referenced for the sake of its credibility and originality.

Hubbuch (1996, p.3) states, "A research paper is a report that an individual presents to others about the conclusions he or she has reached after investigating a subject and carefully assessing the information he or she has gathered". This means research paper present others'

opinions and thoughts; and it is also considered as a final result, because it goes through the process of collecting, analysing, interpreting, and evaluating the gathered data and the findings.

To conclude, from the various definitions mentioned above we synthesize that a research paper is a written report where the researcher uses his own expressions that demonstrates the achieved conclusions which are result of a careful investigation of a topic using certain techniques of gathering, analysing, and evaluating data.

2.3Elements of research paper

It is important for the researcher to pay attention to the main components of a research paper. There are no specific templates for how to write it but there are standard components which needs to be included and present for better understanding and to ensure the smooth flow of ideas. These elements are as follows:

2.3.1. Title

The title is the informative part about the research. It needs to be catchy, not too long, or too short, and not ambiguous. The research paper's writer focuses on the word selection of the title. This latter should be informative and descriptive at the same time.

Bavdekar (2016) mentioned in his article specific criteria of effective research titles:

- The title accurately informs the reader about the paper content,
- Titles hold the readers‟ attention,
- Titles are put in simple, direct, brief, and clear language and
- They should attract the reader.

To conclude, the title gives insight about the content of the research paper and let the reader be curious about it because it attracted his attention. Also, the choice of words of the title must be done with a great care where the words are ordered and stated clearly.

2.3.2. abstract

The abstract is a small paragraph written in a one block. Houghton (1975) claims “an abstract can be defined a summary of information in a document” (cited in Day & Gastal, 2016, p.55). Thus, the abstract functions a summary to the main discussed points in a research paper. Figueiredo (2010, p.24) notes that the abstract needs to mention the problem, the method, solution, results, and implication

Gastal and Day (2012) list a number of characteristics of a good abstract. He stated that the abstract should state the principal objectives and scope of an investigation. It describes the methods employed and summarizes the results in a single paragraph of 4-10 full sentences. Also, An abstract should state in present tense the principal conclusions and presents recommendation.

Generally, the abstract should be precisely and concisely written in 200 words and should never provide any source information or conclusion in the paper; in addition, Literature should not be cited in it.

2.3.3. Introduction

Introduction is a piece of writing which introduces the research papers’ content. It generally moves from the broad subject area to the specific subject matter of the research paper, and it tends to attract the reader’s interest.

Swales (1993) as cited in (Derntl,2014) identifies three phases of an introduction to establish a territory. The first phase is to establish a territory. It is bringing out the importance of a subject and generally present an overview of current research about a subject; next, the second phase which is “establishing the rich”. It means to oppose an existing assumption or reveal a research gape. Thast phase is • To occupy the rich whi meant to sketch the intent of one’s own work; outline

important results, and give a brief synopsis on the structure of the paper.

Thus, the introduction should present the scope of the problems, some extract from the literature to orient the reader, the methods the researcher has chosen and why it has been chosen, and the conclusions drown by the findings and results

2.3.4. Body of the paper

The body is the core of the research paper, and It comprises of several sections where all the information will be presented. Derntl (2014) claims that the body covers several sections and subsections, whereas structure, organization and content depend mostly on the type of paper, publication outlet, publisher, and the creativity of the authors. Thus, its structure, organization, and content get affected by the type of the paper. Its aim is to give the reader an opportunity to understand the reasons behind the asked questions and what researcher has done to answer it.

2.3.5. Discussion

The discussion is the summary of the whole research paper, and It should be clearly stated. According to the Hourglass Model, the discussion section may be a discussion only, a discussion and conclusion, or only a conclusion

Day (1983) and swales (1993) claim that the discussion comprises the following:

- Previewing the background of information and research aims of study.
- Providing a summary of results based on discussion.
- Comparing reached results to the previous published studies
- Drawing conclusions and the sum up of evidence for each conclusion.

Th discussion moves from the too specific (result) to the more general (conclusion). It is like an outlook on further work, and it should be brief but cover all the study basics at the same time.

2.3.6. References

References list is where everything cited in the paper appears in it; as well as, all the sources listed in the reference list are cited in the paper. It allows the researcher's sources to be found by the reader. In addition, it also gives credit to authors the researcher has consulted for their ideas. There is no single style used in writing references list. different research papers have different styles for references and this depends on the authors' style (APA, MLA, Chicago).

2.4Characteristics of a research paper

Writing a research paper is not an easy task especially when the researcher/writer does not know its basics. It is not only about gathering an amount of information and knowledge and putting it in. The researcher /writer should keep in mind some points in order to give quality to his work. A good research paper has certain characteristics to be considered. Boween (2010) emphasized Some characteristics of research papers. He mentioned that it needs to follow the APA and Free from grammar and spelling errors, As It requires the use of consistent sentences and Respond systematically to the assigned tasks. Also it needs to show evidence of being well–thought out and has arguments that are easily followed; The papers are needed to be simple, readable, interesting and enjoyable to read.

All in all, what have been mentioned above define the most important elements that a researcher should take into consideration while writing a research paper. Its accuracy, clearness, coherence, conciseness, and preciseness will promote the researcher work and it will

make it valid, and beneficial for a certain period of time and it will be used as back up for different other research works.

2.5Types of research papers

Types of Research papers differ according to its purpose. It varies according to its content, form, and length. According to Slade (1997, pp.26-28) and Carlock et al (2017, pp.2-3), they shed light and denoted different kinds of research papers. The latter are presented as follows:

Essay

Essay has a vague definition, but generally it is a short formal piece of writing that supports the author's position or personal view. It is written to convince the reader using evidences and it is based on scholarly research. It consists of an introduction, body, and conclusion and it should be narrow and focused.

Academic research paper

It is a paper conducted by both graduates and undergraduates for specific course requirements. This type of research papers is based on source materials to defend the presented arguments. It is written with the help of others' opinions and points of view to support the researcher/writer's own and personal perspective. It is used to distinguish a library-based work from other essays' forms writing it requires time, energy, and focus.

Report Research Paper

A report is about the description of experiences and empirical studies. It is given to undergraduates where they discuss a certain topic using others' point views through analysing,

synthesizing, and evaluating it objectively for the sake of readers' attractions. A report requires different kinds of information sources, and its information should coherent and well-organized.

Argument Research paper

It is conducted in higher educational level. The researcher aims to present and judge other's works but he will choose one of them giving evidences and arguments to defend his claim and own perspective; and he needs to be credible, valid, and objective when giving arguments.

Summary

To conclude, we divided this chapter into two sections. In the first section, we shed light on the research and its meaning in general. We tried to offer the readers with a general overview about the various significance, purpose, benefits, objectives, types, characteristics, and criteria of research. In addition to the educational research, and research in foreign language teaching. Whereas, in the second section, we tried to give an amount of information about research quality and research paper. The coming review, which is the second chapter, will focus on the computer literacy skills that is considered as one of the main factors which has a great extent of effectiveness on the research quality, and how the computer literacy skills may influence positively the research papers quality. The following chapter takles an overview about the concept of computer literacy and its importances as well as what would effect learning and teaching it .

CHAPTER TWO: COMPUTER LITERACY SKILLS

Table of Content

Introduction

This chapter attempts to provide a deep clarification about computer literacy. It tackles the Definition of ICT and computer. Then it gives an overview about the definition of computer literacy and its history. Also shed light on teaching computer literacy and its assessment. Furthermore, it lists the Importance of computer literacy in EFL teaching and learning and in research, Attitudes towards computers, and Importance of being computer literate. Then it spot light on some of the Factors that affect the Utilization of Computer.

2.1. Definition of ICT

ICT, which Stands for "Information and Communication Technologies, is a broad domain that keeps evolving. It has its roots in all aspects of life nowadays and in many fields such as industry, business, and education. It refers to technologies that provide access to information through telecommunications and other communication mediums (Wikipedia, 2020). It encompasses any communication device or application such as computers, radio, internet, television, smart phones, and network hardware and software, satellite systems and so on, and the several services and applications associated with.

Loveless and Ellis (2003) claim that “the words information and communication technology describe a set of technologies with particular applications which vary enormously in purpose and scope within and between subject contexts” (p. 23). So, ICT uses a combination of electronic materials and programs in order to communicate, as well as to store, retrieve, manipulate, manage, transmit, or receive information electronically.

Thus, ICT encompasses many technological aspects so that it allows users and learners to create, collect, store, and use knowledge and information; and enables them connect with people and resources all over the world and benefit from knowledge products offered.

2.2. Definition of Computer

The 21th century is the age of the rapid technological development. The wide spread of computer in the age of Information technology has achieved a great success in almost every field. it is used in satellites, banks, government offices, business establishments, schools, hospitals, airports, and many other corporations.

The word compute is derived from the Latin word ‘computare’, and which means also "arithmetic, accounting". According to Christensson (2006) “a computer, technically, is a programmable machine. This means it can execute a programmed list of instructions and respond to new instructions that it is given.” (TechTerms.com, 2006). So, A computer is a machine that can be directed to perform sequences of arithmetic or logical operations automatically via computer programming. In addition, thakur claims that Computer is an electronic device that is designed to work with Information. Computer cannot do anything without a Program. It represents the decimal numbers through a string of binary digits (ecomputernotes.com). it means that computers have the ability to follow generalized sets of operations which is called program. This latter enables computer to perform a wide series of tasks.

Computer is composed of hardware. This term covers all of those parts of a computer that are touchable physical objects. Such as Circuits, graphic cards, computer chips, memory (RAM), sound cards, motherboard, CPU (Central Processing Unit) displays, keyboards, power supplies, cables, printers, and "mice" input devices are all hardware. Hard drive. These parts of the Computer and some other devices are linked together with the help of wires and cables. Computers’ components differ based on the type of the computer itself. for example, if it is a laptop, everything is integrated in one device; but if it is a micro-computer, the devices are separated (InformationQ.com, 2017).

2.3. Definition of computer literacy

The definition of computer literacy goes through constant changes because innovative computer languages, applications software, new communication devices, and additional automation technologies keep changing and developing. Computer literacy has been defined from various points of view and in different ways. The computer literacy is "an understanding of computer characteristics, capabilities, and applications, as well as an ability to implement this knowledge in the skilful, productive use of computer applications suitable to individual roles in society" (Simonson, Mauere, Montag- Toradi, & Whitaker, 1987, p. 233). This means that computer literacy is to be able to manage a computer device as well as to understand its jargon and software.

In addition, Mason & Mc Morrow (2006) believe that computer literacy is taken as a set of basic skills and understanding of personal computer operating systems, office style software (also referred to as "desktop applications" or "productivity software") such as word processing, spreadsheets, and presentation software. Thus, possessing sort of skills that enable the person in understanding how a computer or technology work is also a key part of computer literacy.

Similarly, Oliveira & Bianchi (2018) believe that it is “familiarity with the vocabulary and strategies associated with computers and computing techniques”. This means computer Literacy can be defined as the knowledge and ability to use technology and computers efficiently.

National business education association (1995) defined computer literacy skills as follows:

> Computer competency skills included the ability to understand and/or used computer applications, to name and describe the typical digital computer components and their functions, to

> describe common computer applications and related social and ethical problems/impacts, to learning fundamental operations and concepts of work processing, spreadsheet, and/or database software applications, to understand the difference between information and knowledge, to understand the links among information centers and the access points available through technology and reference sources, to understand the basic structure of electronic databases and the strategies used to access them, to recognize the different levels, and formats of information including, but not limited to, primary versus secondary sources and popular versus scholarly sources

Thus, computer literacy is to able to operate a computer and its associated software and hardware, and to understand most of the underlying concepts. It includes basic computer operation skills such as knowing how to use a keyboard and mouse, and more advanced concepts such as programming skills. As It includes also the knowledge of the capabilities, characteristics, and context of the computer like general computer terminology and software concepts.

2.4. History of computer literacy

Series of important inventions led to the development of the personal computer in the 1970s, and the emergence of information and communications technology (wikipedia,2020). Computer literacy is originally coined by Arthur Luehrmann in 1972 in his discussion of computers as a rising important element in educational environments (Robinson, 2009, p.2). Since 1970th and its meaning has been changing and debated because it was a vague term. In 1978, some people supposed that computer literacy means “the ability to program a computer or even build one while others assumed it referred to the ability to use a computer”

(Etherington, 2018). According to Moursund (1982), he viewed computer literacy as "a working knowledge of computers" (Moursund as cited in Robinson, 2009, p.2). While Watt (1982) believed it is body of information about computers, how computers are used, how computers work, and the impact of computers on society (Robinson, 2009). Later on, an article published in 1985 in the Journal of Higher Education defined computer literacy as "that compendium of knowledge and skill which ordinary, educated people need to have about computers in order to function effectively at work and in their private lives in American society for the remainder of this century." (Etherington, 2018). In 2003, Moursund ameliorated his previous proposed definition of computer literacy as "a functional level of knowledge and skills in using computers and computer-based multimedia as an aid to communication with oneself and others for the purposes of learning, knowing, and for using one's knowledge" (Robinson, 2009). In 2007, Computer Literacy USA (CL-USA) (2007, p. 1) defined computer literacy as "An understanding of the concepts, terminology and operations that relate to general computer use. It includes the ability to solve and avoid problems, adapt to new situations, keep information organized and communicate effectively with other computer literate people" (CL-USA as cited in Hoffman & Blake, 2003). From all the definitions mentioned above, computer literacy is to able to operate a computer and its associated software and hardware, to understand most of the underlying concepts, and understand the different aspects related to it such as its impact on society. It includes basic computer operation skills such as knowing how to use a keyboard and mouse, and more advanced concepts such as programming skills. As It includes also the knowledge of the capabilities, characteristics, and context of the computer like general computer terminology and software concepts.

In 1985, the National Council of Teachers of English Committee on Instructional Technology recognized computers as valuable devices for teaching the writing process (Thomas, 1985). This was because of the development of computer features and the software,

especially computer applications of word processing that make the writing mechanical aspects like editing and revision simple. As well as, there were more sophisticated applications called "dubbed mind tools" to enhance word processing. It focused on the cognitive and metacognitive processes involved in composition that helping writers generate, think about, develop, and evaluate notions and ideas (Montague, 1990, p.39). The general public in the 1970s did not have access to computers and their use was limited. By 1987, computer applications had improved to the point where the ability to use them implied Computer Literacy (Hoffman & Blake, 2003). Word processing, business and presentation graphics, spreadsheets, and file management became the core Computer Literacy topics. Companies began to view it as productivity (or even job-related task) requirements.

In 1994, ethical and Social aspects of computer use became more prominent in course applications Literacy (Hoffman & Blake, 2003). Computer literacy included hardware and software components of a computing system, the social and ethical context of computing, and the computer-user interface manifested in file abstractions, and covered how to use applications to solve problems in specific knowledge domains. Although the Web began in 1993, it did not have an impact on Computer Literacy courses until later in that decade. Neither the Internet nor the Web was included in. In 1997 the Internet emerged for the first time as a theme in Computer Literacy courses Literacy (Hoffman & Blake, 2003). By 2000, Computer Literacy courses included full sections devoted to the "literate" use of the Web. Literacy topics involved exploring how computers work; using software and applications such as word processing, file management, spreadsheet, database, and presentation graphics, and finding useful information on the Web. IEEE Code of Ethics (1993) and ACM Code of Ethics (1990) grounded how computers work, computer history and applications, and the power and ethical use of information in the technological society as topics and courses to be taught by computing professionals, particularly academics (Hoffman & Blake, 2003).

By 2002, Portable and mobile technologies were becoming commonplace after the development series of Computer Literacy courses. Computer with an Internet access could be found in almost every library. Many homes had several computers, and some college and universities were required to have laptop computers. As it was also becoming as much of a fixed object in the modern office as chairs or desks. The Partnership for 21st Century Skills fir report (2002) claimed that in order people cope with the demands of the 21st century, they need to know beyond core subjects of computer. They needed to distinguish how to use their knowledge and skills such as thinking critically, analysing information, applying knowledge to new situations, communicating, comprehending new ideas, solving problems, collaborating, making decisions (Holz, 2019). The term computer literacy has been replaced by the "digital literacy" Because it is now attached to a broad range of devices and platform. The shift from computer literacy to digital literacy is eventually a recognition of the fact that to be literate in a digital age does not mean knowing how to use one device, but rather means how to engage with a system of devices and platforms (Computer Literacy: What It Was and Eventually Became, 2019).

In the last 30 years, there has been a great shift in the way that people integrate technologies into their personal lives. Technology has developed unstoppably. Every day there is new invented programs and new devices. So, it is nearly impossible to keep technology up to date.

2.5. Teaching Computer Literacy skills

People learn computer literacy skills according to their purposes and needs. Some want to learn only the basics skills, some want to manipulate the advanced skills, others only need to learn it for job-related task and so on. So, Teaching computer literacy courses differs according to various determinations and requirements. The computer literacy course includes topics such as hardware, software as word processing, spreadsheet, applications, terminology,

and its jargon (Manowaluilou,2008). Computer skills are divided into two categories: hardware and software (computer skills, 2020).

On one hand, Hardware refers to the physical elements of a computer. It is called also machinery or the equipment of the computer. The hardware components of a computer are the keyboard, the monitor, the mouse, and the central processing unit. However, most of a computer's hardware cannot be seen; in other words, it is not an external element of the computer, but rather an internal one, surrounded by the computer's tower. Teaching hardware skills can be as simple as knowing how to turn devices on and off. As it involves also more complex tasks like connecting machines to networks, changing parts, or fixing broken devices. For these complex tasks, many employers hire trained technicians with advanced computer skills (computer skills, 2020).

On the other hand, Software known as programs or applications, consists of all the instructions that tell the hardware how to perform a task. Software is capable of performing many tasks. Software skills help you to efficiently use computer programs and applications. There are some software skills that employers may consider as prerequisites to employment. There are various software skills need to be learned and taught such as Operating systems as Windows and MacOS, Office suites as Microsoft Office and G Suite, Data visualization, Communication, and collaboration tools as Slack and Skype, Spreadsheets as Excel and Google Spreadsheets, Presentation software as PowerPoint and Keynote).

In the educational sector as higher education, it is important to determine what constitutes a desired computer literacy course and how it should be taught. Teachers need computer literacy skills to start thinking of putting the modern technological devices in classrooms. Although computer courses exist in curriculums, it is sometimes not sufficient.

2.6. Measurement of Computer Literacy Skills

Computer literacy is a vague concept, so is teaching and assessing it. Many researchers measure computer proficiency by reporting the amount of technology used in the classroom or the time teachers and pupils spend working with computers (Tondeur, 2007), while in other studies, they focus on specific software applications.

According to Kegel and Wieringa (2016), The measurement of Computer literacy is based on five most important dimensions as follows:

• **Skills:** The skills associated with computers. This includes basic computer operation skills such as knowing how to use a keyboard and mouse, but can also contain more advanced concepts such as programming skills.

• **Knowledge**: Knowledge of the characteristics, capabilities, and context of the computer. This includes general computer terminology and software concepts, but also the social and ethical context in with computers reside.

• **Attitude:** The collection of Cognitive, Behavioural and Affective attitudes that a person can have towards computers. This includes well covered concepts such as computer anxiety, but also computer interest and beliefs about computers.

• **Experience:** The measure of time and frequency a person uses a computer. It is assumed that time spent using the computer leads to associated knowledge and skills.

• **Information:** literacy (the skill in sourcing, processing, and communicating information) is frequently measured alongside computer literacy. Most, if not all applications of computers involve the manipulation of information and so it is included as a dimension of computer literacy

Thus, the assessment of computer literacy differs according the aims and purposes of learning and teaching it. Computer literacy that a programmer possess is not the same of

literature teacher; or the computer literacy of students who belong to scientific stream is not assessed as social science students

2.7. Importance of Computer Literacy skills

Nowadays, the English language is gaining popularity all over the world. It is regarded as language of international communication, global and lingua franca for of different countries. The role of computer in teaching is becoming more important because world is in a continuous and fast modernization (Banari & Beldiga-Vasilache, 2020). Computer literacy means the capabilities required to succeed in and beyond education, in an age where digital forms of ICTs predominate. The conventional Computer competency was the skill students should have in order to be successful in academic areas, and in personal living as lifelong learners (National Standards for Business Education, 1995). Computer literacy is an essential part of undergraduate curriculum today. It affects every aspect of our lives and every part of the global society. Employers prefer workers who are computer literate because they are more productive and efficient at work than those who are not computer literate (Gupta, 2006). The most common end-user computer skills, which are essential for job occupations, mandate skills such as experience with spreadsheet applications and word-processing.

Moreover, No one can deny that the computer, specifically the microcomputer, is having a great impact on the school of today (Anderson,1983). Internet and computer affected the educational system more than the previous educational technologies. It has fundamentally changed the way our students approach their assignments, interact with others, and view the world (Rick, 2020). Computer has been integrated in teaching faster than the previous audio-visual technologies. In higher education, computer and Internet activate the sense of touch of the user as well and provide the opportunity of higher interaction to the users for the development of their individual, creative, and intellectual abilities (Aduwa-Ogiegbaen & Iyamu, 2005).

Thus, computer affected the educational process more than anything else. In the digital age, Students need to high level of computer literacy both to succeed at tomorrow's jobs and create tomorrow's innovations.

2.6.1 In EFL Learning and Teaching

Technologies have been in language teaching and learning for ages, back to the period of radio and blackboard (Kazemi & Narafshan, 2014). Researchers insist on the advantages to use ICTs in English as a Foreign Language teaching. Some of them tried to categorize the most suitable technological devices for each learning skill (listening, reading, speaking, and writing). Basheer (2013) suggested that "each technological tool has its specific benefits and application with one of the four language parts" (p.111). Consequently, he has organized the technological tools around the learning skills:

- Listening skills: Computers, broadcasting, CD-Players and Tap Recorders…
- Reading skills: Computer Reading-Based Programs, Multimedia software, Browsing the Internet, Electronic dictionaries…
- Writing skills: Computers, emails, Internet text-chatting…
- Speaking skills: Internet voice chatting, Speed Synthesis Programs…

So, ICTs and computer technology are present and has a significant role in mostly all the learning skills. Warschauer and Healey (1998) believed that the role of computers in language teaching has transformed significantly in the last 30 years. They stated that computers previously used in language teaching were limited to Simple simulations and exercises, but now Technological and pedagogical developments allow us to more fully integrate computer technology into the language learning process. Then Warschauer and Healey (1998) added as follows:

> Multimedia programs incorporating speech-recognition software can immerse students into rich environments for language practice. Concordancing software with large language corpora provide students with the means to investigate language use in authentic contexts. And the Internet allows for a myriad of opportunities to communicate in the target language, access textual and multimedia information, and publish for a global audience. Future developments in networked communication, multimedia, and artificial intelligence will likely converge, creating a potentially more central role for the computer as a tool for authentic language exploration and use in the second language classroom. (pp. 67- 68)

Thus, a great focus of attention gradually shifts from the computer itself to the natural integration of computers into the process of language learning, which demonstrates that computer technology has taken its equitable place as an important element of language learning and teaching. Now, many educators accept the idea that responsible educators must prepare students for future; therefore, technology must be a part of the educational landscape (Murry & Kinnik, 2003). But so that learning using advance technologies be successful, they should be properly integrated into the curriculum (Stanley, 2013).

Moreover, the application of Information Communication Technology, mainly computer, in English learning and teaching has become popular. It had a major influence on the teaching and learning of languages. Using the Internet to learn a language can recompense for the lack of communication with the native speakers face to face and can create varied opportunities to boost and improve learning (Barret and Sharma, 2007). Computer is efficient tool to learn vocabulary. According to Mujtaba (2013), "learning vocabulary using computers help learners to acquire significantly vocabulary faster than the traditional way of teaching vocabulary." (p.65)

The English Teaching method has definitely been changed with the current technologies (Nawaila, 2020). Mujtaba (2013) also believes that the use of computers in English teaching and learning can offer a wide variety of multimedia content and other channels of communication between learners. He explains that technology has helped to change teacher-centred approaches towards learner-centred ones. Students have increased their autonomy and become more active learners.

To conclude, the use of computer technology is the argument that such use in one of the most effective tools to increase and foster students' learning. Its role in teaching is becoming more important because world is in a continuous and rapid modernization.

2.6.2 In Research

Different research technologies are used during each step of the research process since the late 1990s. New knowledge, new products, and new technologies have been continuously emerging from various fields in the modern information society. The computer is not only a subject of research; it is now a universally important tool in conducting research. The computer as a writing tool can ease the interactive and dynamic nature of the writing process. The computer makes writing physically easier to revise (Montague,1990, p.21).

The importance of computers in scientific research is exceptionally high and the use of a computer can help scientific research enormously. According to Chamanla (2014, pp.33-34), there are many reasons why computers are so important in scientific research and some of the main reasons are speed, accuracy, organisation, and consistency. Starting with speed, computer can process information in a very short time. So, researcher can process and analyse the data quickly. By saving time, researcher can conduct further research. Calculation that may take several hours to process will take computer mere minutes, if not seconds. Then accuracy, Computer is incredibly accurate. Wrong calculation could result an entire research or project being filled with incorrect information. Moving to organization, the researcher can store

millions of pages of information by using simple folders, word processors & computer programs. Computer is more productive & safer than using a paper filing system in which anything can be easily misplaced. Finally, computer provides consistency. It cannot make mistakes through "tiredness" or lack of concentration like human being.

Additionally, Research process consists of series of steps necessary to effectively carry out research and the desired sequencing of these steps. Computer helps for searching, storing, and retrieving literature and relevant published information from the electronic database of world-wide webs like Google (www.google.com) and Google Scholar (www.scholar.google.com), and software such as Mendeley (www.mendeley.com) ; Instead of searching for the literatures in the form of books, journals and other hardcopies at the libraries which consume considerable amount of time and effort (Sekaran, 2003; Myers, 2009). Nowadays, while researchers are writing, they can use reference or citation management software like EndNote (www.endnote.com) to help select citations and populate the references or bibliography automatically (Myers, 2009). This type of software can improve researchers' efficiency and accuracy while preparing their dissertations or articles.

Moreover, the preparation and entering data is the most labour-intensive and time-consuming aspect in research studies. The researcher will convert the recorded data into Microsoft word file or excel spreadsheet or any statistical software data file in conjunction with the statistician and the programmer, which will be directly opened with statistical software's for analysis. Also, computers help in data entry and management. It allows for greater flexibility in recording the data while they are collected and better ease during the analysis of these data. Examples of editors are WordPad, SPSS, ultraedit etc. Familiarity with any of the previous packages will be enough to carry out the most difficult statistical analysis. One more computer revolution has been the creation of templates that allow surveys to be effortlessly

created, distributed, and tabularised such as Survey Monkey (www.surveymonkey.com) (Beatty, 2015, p.190).

Furthermore, research article, research paper, and research thesis are typed in word processing software and converted to (PDF) and stored and/or published in the world wide web. Online applications and sites are available where we can convert our word file into any format like html, pdf etc. Even we can prepare our document using online word processing software and can store/edit/access it from anywhere using internet such as Overleaf (www.overleaf.com). In addition, plagiarism is the worst academic sin. Previously, it was hard to detect it because it used to be identified manually while reading through the submitted articles or dissertations. With the development of ICT, researchers now can use plagiarism detector software which are available in the market like Plagiarism Checker (www.grammarly.com), Article Checker (www.articlechecker.com), and Viper (www.vipersoftware.nl) to detect any plagiarism has been committed (Myers, 2009). So, to restraint plagiarism speedily and effectively, the plagiarism checkers mentioned above and others are used to neutralize this type of academic dishonesty.

Hence, Computer has a very important role to play in research activities. It has become an essential tool for research for academic purpose from the very first step of looking for information till the last step of writing the research papers and publishing it on internet.

2.8. The Importance of Being Computer Literate

With the development of technology, the demand of computer literates is increasing day by day. Computer proficiency is becoming an essential skill these days to succeed in for academic work, job-related tasks, business, or a career, and to enhances job opportunities. Employers want their employees to have basic computer skills such as the companies now are becoming more dependent on computers (Oliveira & Bianchi,2018). Being a computer literate open your world up to new ideas, help you to innovate, and enable your self-confidence. Also,

it opens door to greater understanding of cultures and people of diverse backgrounds because it addresses the Gap in someone's Knowledge (Daniel, 2018). It is becoming necessary to gain knowledge and learn computers and need to be computer literate. Students, researchers, or any other person should learn computer fundamentals and computer basics to cope with the advancement in technologies (Morrison, Wells & Ruffolo, n.d.).

Nowadays, there is a paradox between digital-literate, a computer-literate student / professional, and programmers "power user". the digital-literate is not necessarily a computer-literate. Sometimes, he is unable to perform essential, and required, academic and professional tasks efficiently. Whereas "power users" possess High level skills like coding, HTML Web development and network administration. According to Justin (2012), just because someone used computer for a long period of time, does not mean he\she is a computer literate. It required to be aware and to manipulate certain skills such as Search engines, Word processing, Spreadsheets, Browser basics, Virus/malware scanning, Basic hardware terminology and Simple networking diagnosis.

Now, the world is filled with technology. It is the time of the digital and computer revolution, where there is no place for computer illiterates and technophobes anymore. Computer literacy is not just a skill to possess, it is the key to success in the future and to get great of opportunities and chances.

2.9. Factors associated with computer literacy

As computers have become widely used, computer literacy is defined now more in terms of person's ability to function in society. From numerous studies, it is evident that student computer literacy varies across countries, across schools within countries, and across students within schools (Ainley, 2018).

According to Oliveira and Bianchi (2018) Computer literacy could be affected by factors like prior knowledge and usage of computers, personality characteristics, and way of

thinking about computers. Moreover, Davis (2000) stated that "schools are adjusting to accommodate societal needs of technology and to accommodate the ever-increasing need of resources". Thus, the social aspect is one of the factors that affect the use computers among students and teachers. Also, Mumtaz (2000) mentioned that prior knowledge and usage of a computer, personality characteristics, and way of thinking about computers, hardware, and software availability, need for computer teacher staff, and teacher training are some the factors that has significant impact on the use of computer.

Aesaert et al. (2015) suggested a multilevel model based on factors from the student, classroom, and school level to explain differences in computer literacy within countries as follows:

- **Individual Influences:** Student-level influences on the development of computer literacy can be considered in terms of attitudinal or dispositional characteristics, familiarity with ICT, and background characteristics. In addition to the socioeconomic characteristics of homes, consideration needs to be given to parental attitudes to, and practices with, information technology.

- **Classroom and Teacher Influence:** includes among potential classroom and teacher level influences teachers' ICT competence, attitudes to ICT, professional development, logistic appropriateness, ICT use, and ICT experience.

- **School Influences:** it includes the level of socioeconomic background of the students attending a school, commitment among teachers in a school toward professional development, and the Curriculum Implications.

Technology innovations in ICT are changing the learning environment, culture, and the type of skills that students use in order to success and build knowledge, and teachers learn and teach to be implemented in courses and curriculums.

summary

This chapter tackled the definition of ICT and computer. It has outlined the debate over the definitions of computer literacy. It gave an overview about its history. It also shed light on teaching computer literacy and its assessment. Furthermore, it listed the importance of computer literacy in EFL teaching and learning and in research, attitudes towards computers, and importance of being computer literate. Then it spot light on some of the factors that affect the utilization of computer. The following chapter deals with the field work and analysis and interpretation of the findings.

CHAPTER THREE:

FIELD WORK AND DATA ANALYSIS

Table of Content

Introduction

The present study aims at investigating the role of computer literacy skills in the improvement of the research papers quality. Basically, the current chapter is devoted to the practical part of this research. Initially, through this chapter we aim to provide a description of the rational of each data collection method used in this study. Moreover, we attempt to describe each data collection method and data analysis; and to interpret, discuss, and synthesis the results. Finally, this chapter provides a thorough discussion of the findings in order to answer the research questions, and to test the hypotheses suggested in the general introduction of this study.

3.1Rational for Research Approach

This study was carried out using a qualitative research approach. Two online questionnaires were designed and distributed to answer mainly the 1st research question which is "Do computer literacy skills provide solutions to ameliorate learners' research papers' quality?". The first one for students in order to collect descriptive data about students' perceptions as an attempt to answer the 2nd research question which stated "What are students' attitudes towards the use of computer literacy skills in research. Then, the second one is for teachers to examine teachers' attitudes towards the role of computer literacy skills in improving research papers quality, and to answer the 3rd research question which is "What are teachers' attitudes towards the use of computer literacy skills in research?".

3.2Students' Questionnaire

This questionnaire is designed for Master EFL students at Mohamed Kheider University of Biskra in the academic year: 2020-2021.

3.2.1 Aim of the Questionnaire

Students' questionnaire seeks to collect the necessary data in order to understand the role of the computer literacy skills in the improvement of research papers quality. It aims at revealing students' familiarity with the research process and research skills level. As it also aims to report participants' computer literacy skills and their opinions and attitudes towards its use in the process of conducting and writing a research.

3.2.2 Description of the Questionnaire

The questionnaire (see appendix A) has been administered to master EFL student of English division in order to obtain the participants' valuable opinions about the role of computer literacy skills in the improvement of research papers quality .The questionnaire was distributed online because of the health situation we have been put in , COVID-19 VIRUS .This questionnaire consisted of twenty-one (21) questions which are organized in a logical order and managed in form of closed ended and opened ended questions, and it is subdivided into four sections.

The first section is about the background of the participants where the researcher aims at collecting information (general information). This section is composed of three questions. It is designed to identify the respondents' gender and age (Q.1), students' choice to continue master studies (Q.2), and students' opinion about master studies (Q. 3).

The second section (regarding Students" familiarity with research process) contains four questions (from Q.4 to Q.8) which states learner's familiarity with the research process and how often they conduct it, if they have been taught to conduct research before coming to university , their consideration about conducting research , their satisfaction about the way research methodology is taught , and what is research according to them.

The third section which is about research quality and research skills includes three questions (from Q.7 to Q.11). it is designated to report students' points of view on how do

they find doing a research, students' consideration of what is a good researcher to them, and to what extent some of the most important skills any postgraduate researcher should have can influence the research quality and the final outcome.

The fourth is the last section which is about students' computer literacy skills includes nine questions (from Q.13 to Q.21). it is created to explore the existence of any relationship between research quality and computer literacy skills. in addition, it tries to demonstrates Students' regular access to computers, their responses about whether they have been taught how to use computers before being at, and their frequency of learning the use of computers in the different learning streams. as well as it reports Students' attitudes towards the content they have been taught at university and their satisfaction with the way they learn computer literacy skills at university. furthermore, this section aims to discover Research stages where students' need computer literacy skills and their evaluation of their proficiency in computer literacy programmes and applications. finally, it tried to report Students' views about whether being a computer literate may facilitate the research process or not, and about their views about whether teaching academic writing and the research course using computers may improve their research paper writing quality.

3.2.3 Analysis and Interpretation of the Results

Section one: students' personal profile

Item 1: Would you specify your sex please?

Table 3. 1: Respondents' gender distribution

Option	Respondents	Percentage
a. Female	52	85%
b. Male	9	15%
Total	61	100%

The table below demonstrates the distribution of gender in our sample. it is observed that 52 respondents (85%) were females, whereas nine (9) respondents (15%) were males. This clarifies that the majority of our sample are females. This means that females are more interested in learning English especially at master level.

Item 2: The choice to continue your studies in Master level was:

Table 3. 2: Respondents' choice to continue master studies

Option	Respondents	Percentage
a. Your personal choice	**56**	**92%**
b. Your parent(s) choice	**4**	**7%**
c. Someone' s advice	**1**	**1%**
Total	**61**	**100%**

The table above demonstrates the number as well as the percentages of respondents' main reason for their application for master degree whether it is a personal choice , parents' choice or someone's advice .As it is clearly observed, 56 respondents that is about (92%) applied for master degree as their personal choice, while four (4) respondents that is about (7%) their application was their parents' choice, and only one (1) applied for master level as someone's advice. Hence, the majority of Master's applications in Division of English at the University of Biskra were personal choices of student. This proves the high demands of learning English at master level.

Item 2.A: If it is yours, is it because

Table 3. 3: Reasons behind respondents' personal choice to continue master studies

Option	Respondents	Percentage
a. You would like to raise your educational level	12	20%
b. You would like to get more job opportunities	37	61%
c. You would like to have the opportunity to conduct an academic research and develop your research skills	8	13%
d. Others	4	7%
Total	61	100%

Since the respondents who answered with "your personal choice" were asked to give reasons for the application in master degree. The above table illustrated that the majority (61%) applied for master degree to get more job opportunities, while (20%) noted that their application for master degree was to raise their educational level. Whereas, a percentage of (13%) claimed that conducting research and developing research skills are their main reasons and the rest (7%) highlighted that there are other reasons out of the given ones, they mentioned that they need it to be able to use the language correctly and effectively in case they have the chance to go abroad.

Consequently, the majority of Master students have applied for master degree for self-interests like raising their opportunity to get jobs or to work mainly in domains that need English language.

Item 3: How do you find the master studies?

Table 3. 4: Respondents' opinions about master studies

Option	Respondents	Percentage
a. Easy	23	37%
b. Difficult	37	61%

c. Very difficult	1	2%
Total	61	100%

This question was asked to respondents in order to extract their opinions about learning master studies level at university. As the table indicated, the majority of respondents 37 respondents that represent (61%) noted that master degree at university is difficult, while 23 respondents that represent (37%) claimed that it is easy; however, one respondent (2%) think that studying for master degree is very difficult. As a result, the level of difficulty of learning a university is limited between easy and difficult, while very difficult is an excluded rate.

Item 3.a: Justify your answer, please

Respondents justifications

In this question, the respondents were asked to justify their answers. Their justifications were varied and convincing. On one hand, most of students who answered with "easy" pointed that studying and succeeding the years is not that difficult, it was manageable and interesting. In the same path, others named some factors which made learning at university easy for them such as " working hard", "working smartly" , and "working seriously" , this latter was summarized by one respondent by saying " There wasn't a lot of trouble since it requires some of skills , knowledge and efforts to make it easier.". So, according to our respondents, learning at university is easy with seriousness, dedication of time and efforts, attendance, and working hard.

On the other hand, those who answered with "difficult" justified their answers by highlighting "overloaded curriculum, demotivation from teachers, depends only on memorization, the theoretical content taught without application or practice, the unavailability of sources". Moreover, a big number of students restricted the difficulty of learning at university to learning in master level; they agreed that learning at license level is easy but at

master level is complex because it requires conducting research, writing a dissertation, and using all what they studied in the three previous years.

From respondents' justifications, we extracted that learning at university can be easy if students attend their sessions, work hard and study seriously and smartly. Likewise, learning at university can be also difficult when it is affected by some factors as the charged timetable, demotivation, and transportation issues.

Section two: students' familiarity with the research process

Item 4: Are you familiar with conducting research?

Table 3. 5: Respondents' familiarity with conducting research

Option	Respondents	Percentage
a. Yes	48	79%
b. No	13	21%
Total	61	100%

This question aims to have an insight about students' background in conducting research. The table shows students' familiarity with the process of conducting a research. It is observed that 48 respondents that is about (78%) are familiar with the research process; whereas 13 respondents that is about (13%) are not familiar with the research process. Hence, the majority of respondents have a certain background information on how to conduct a research at university.

Item 4.a: If yes how often do you conduct research at university?

Table 3. 6: Respondents frequency of conducting research at university

Option	Respondents	Percentage
a. Always	6	10%
b. Sometimes	32	53%

c. Rarely	16	26%
d. Never	7	11%
Total	**61**	**100%**

Since the respondents who answered with “yes” were asked to state how often they conduct research. The above table illustrated that the majority of respondents 32 that represents (53%) conduct research sometimes while 16 respondents that is about (26%) conduct research rarely. Whereas 7 respondents that stand for (11%) answered never, and the rest which is about 6 respondents (10%) who always conducted research. This designates that most of master students did not engage in many researches at University. This could be attributed to various reasons, such as the lack of methodological background, the master degree difficulty, the overloaded curriculum, and the absence of motivation.

Item 5: Have you ever been taught how to conduct research before being at university?

Table 3. 7: Respondents' answers about whether they have been taught the research process before studying at university

Option	Respondents	Percentage
a. Yes	20	33%
b. No	41	67%
Total	61	100%

This item aims to check if students have been taught the research procedures before studying in university. The table below indicates that the majority of respondents 41 represented in (67%) have not been taught the research process before passing to university, whereas 20 respondents that is represented in (33%) have been taught the research process conduction before studying in university. This clarifies why the majority of students face certain difficulties in their research process, because in higher education, students are expected

to have prior knowledge about research procedures; however, the majority did not possess the required and initial background about the research conduction.

Item 5.a: Whatever your answer is, did this affect your learning process at university?

Table 3. 8: The effect of learning how to conduct a research before being at university on respondents' learning process

Option	Respondents	Percentage
a. Yes	**50**	**82%**
b. No	**11**	**18%**
Total	**61**	**100%**

The table (3.8) shows that 50 respondents that is about (82%) stated that it affected their learning process at university. whereas 11 respondents that is about (18%) answered it did not affect their learning process. This explains why most of students fail in their first year in studying at university because students are considered as novice researchers and they are expected to conduct research about everything given in the lectures in order to learn and succeed.

Item 5.b: Explain, please

Respondents explanations

Previously the researcher asked respondents if they have been taught how to conduct research before studying at university and the majority answered with "NO". Then, we asked them to explain if that affected their learning process at university. Their explanations were varied.

On one hand, most of students who answered with " YES" pointed that it affected them Negatively because of different factors such as "the lessons taught before coming to university where only theoretical which made it a hard and difficult process ", " no prior knowledge or

research experience" , "Difficulties confronted in terms of writing the practical work , finding valid sources" and so on . this latter was summarized by one respondent by saying "It's so hard for beginners to start up a research study at first, it needs a lot of time, practice as well as guidance. The process of conducting a research study is based on one main feature as the availability of sources. Along with that being said, teaching certain modules on the same year of submitting a research study is never enough. every teacher think that students learnt how to conduct a research but they were not. Instead, lot of ambiguity and pressure will be noticed.". So, according to our respondents, the unfamiliarity with the procedures of conducting research made the learning process at university difficult at all levels.

On the other hand, those who answered "NO" claimed that it did not affect their learning process mainly because "their teachers did not impose them to do a research papers", and "at university, teachers taught them methodology starting from the basics". So, the respondents think whatever they had been taught before is useless because it was only theoretical and out of the context of higher education, as it was only a material to be memorized to pass the test or the examination.

From respondents' justifications, we extracted that learning how to conduct a research before studying at university has no impact on learners' learning process at university since the content taught was irrelevant with what is required in higher education i.e. the field of English language.

Item 6: How do you consider learning to conduct research?

Table 3. 9 :Respondents' consideration of learning to conduct research

Option	Respondents	Percentage
a. Very important	42	69%

b. Important	19	31%
c. Not important at all	0	0%
Total	**61**	**100%**

The table below indicates respondents' considerations of learning how to conduct research. as it is shown, the majority of respondents 42 respondents that is about (69%) consider learning how to conduct research is very important; while 19 respondents that is about (31%) think it is important, and none consider it not important at all. This means learning research process and procedures it highly needed and important for EFL learners.

Item 7: Are you satisfied with the way the course of research methodology is being taught?

Table 3. 10: respondents' satisfaction with the course of research methodology

Option	Respondents	Percentage
a. Yes	12	20%
b. No	49	80%
Total	61	100%

The table shows the students' satisfaction about the course of research methodology. it is observed that (80%) that represent 49 respondents are not satisfied with how the courses of research methodology are taught, whereas only (20%) that is about 12 respondents are satisfied.

Item 7.a: Justify your answer please

Respondents justifications

The researcher asked them to justify their "yes/no" answers. On one hand, those who answered "No", they agreed on that the course of research methodology is only taught theoretically without practice, the teaching methods are still following the traditional manners, no enough devoted time for workshops and how it taught, and the integrated technology in the English department is not sufficient to deliver the course. On the other hand, those who

answered “YES” justified their answers by saying that “the lessons were precise, concise, interesting”, and “the content was taught chronologically”.

Thus, this clarifies, according to respondents, why they face obstacles in doing their researches and writing their dissertations and research papers. even though the lessons were delivered in a good manner, students still need and recommend administration to provide more technology to the English department and devote more time to TD sessions so that students practice more effectively, as well as teachers needs to change their traditional teaching methods and avoid repeating the same information all over the years but instead they focus more on practicing what they teach to their students.

Item 8: According to you, research is?

Table 3. 11 : Research according to respondents’ points of view

Option	Respondents	Percentage
a. A necessity to complete your degree	30	49%
b. A fortune to get a good mark	2	3%
c. A tool to improve your knowledge	15	25%
d. An attempt to find solution(s) to certain problem(s)	14	23%
Total	61	100%

This question aims at exploring respondents’ points of view and considerations of research to them. The table (3.10) demonstrates that 30 respondents that is about (49%) consider research as a necessity to complete their degree. then, 15 respondents that is about (25%) believe that research is a tool to improve knowledge; and 14 respondents that is about (23%) assumed that research is an attempt to find solution to certain problems. but only 2 respondents that is about (3%) stated that it is a fortunate to get a good mark. This means that EFL students consider research mainly as a necessary component to complete their master

degree because it is considered as a requirement to pass the year and get the diploma or for future career like getting a job or continuing their PhD; as well as a tool to construct knowledge and develop skills. It is also considered as contribution to academia and society, because the nature of research generally is about looking for the unknown and answering questions as well as finding solution to problems

Section Three: Research Quality and Research Skills

Item 9: As a postgraduate researcher, how do you find doing a research?

Table 3. 12: respondents' attitudes towards doing a research

Option	Respondents	Percentage
a. An easy task	2	3%
b. A hard task	59	97%
Total	**61**	**100%**

the table above demonstrates students' attitudes towards doing research. As it observed, 59 respondents that is about (97%) consider research a hard task. However only (3%) of the respondents claimed that it is an easy task. The results show that the majority of students are still facing difficulties and struggling when it comes to conducting research.

item 9.a: If it is a hard task, is that because

Table 3. 13: Respondents' reasons behind research difficulty

Option	Respondents	Percentage
a. It is time consuming	10	16%
b. It is effort consuming	7	12%
c. It requires the mastery of a considerable number of skills	44	72%
Total	61	100%

The table above illustrates some of the reasons what makes research a hard task to students. It shows that only 7 respondents that is about (12%) stated that it is effort consuming; and 10 respondents that is about (16%) said it is time consuming. whereas, 44 respondents that is about (72%) claimed that it requires the proficiency in considerable number of skills. Thus, the majority of students possess certain skills that facilitate their research process and enable them to conduct research correctly and in easy way.

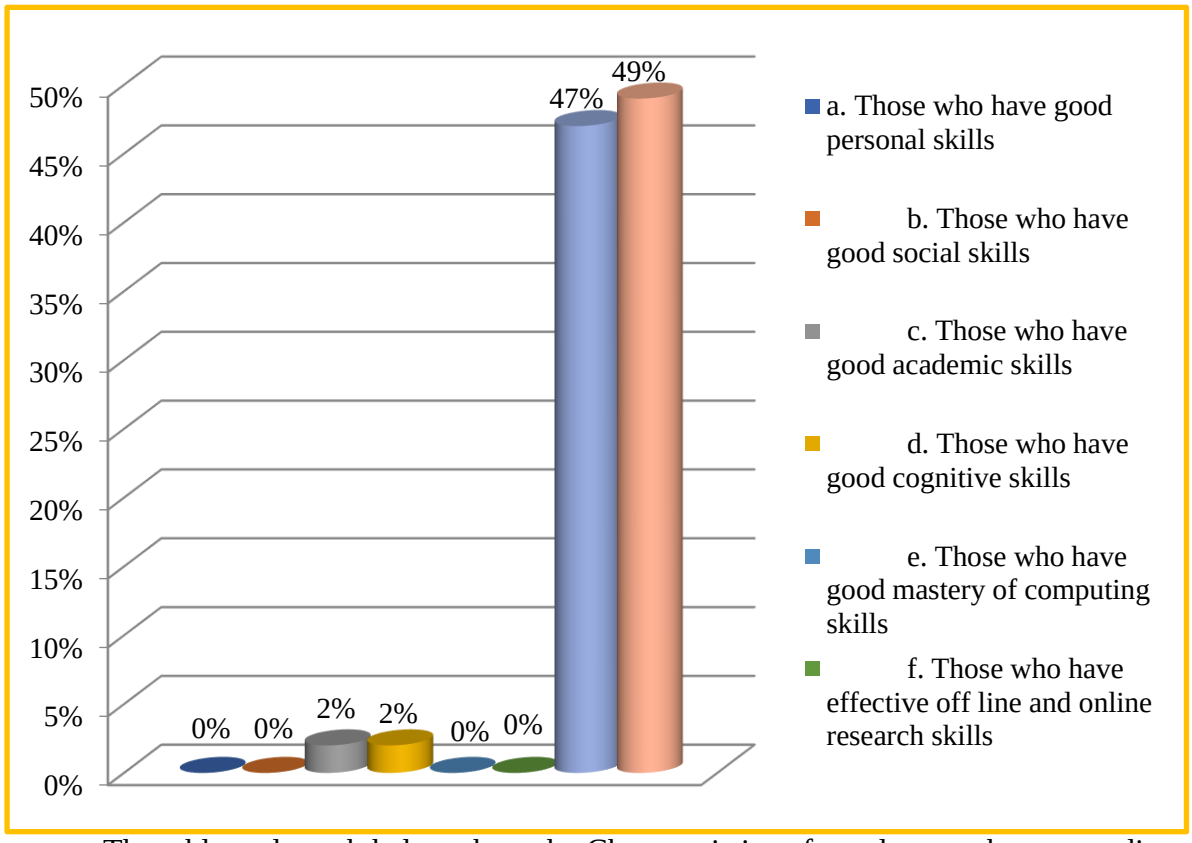
item 10: according to you, good researchers are:

Table 3. 14: Characteristics of good researchers according to respondents

Option	Respondents	Percentage
a. Those who have good personal skills (curiosity, flexibility, organization, communication, etc.)	**0**	**0%**
b. Those who have good social skills (Easy going, cooperative, good communicators, etc.)	**0**	**0%**
c. Those who have good academic skills (reading, listening, speaking, and writing skills)	**1**	**2%**
d. Those who have good cognitive skills (understanding, evaluation, critical thinking, and analysis)	**1**	**2%**
e. Those who have good mastery of computing skills (Microsoft word, excel, ptt, etc.)	**0**	**0%**
f. Those who have effective off line and online research skills (access and use of the faculty library and online research engines and materials)	**0**	**0%**

g. All of them	**29**	**47%**
h. More than one answer	**30**	**49%**
Total	**61**	**100%**

Graph 3. 1: Characteristics of good researchers according to respondents



The table and graph below show the Characteristics of good researchers according to students. From the participants' answers, we observed that 30 respondents that is about (49%) stated that a good researcher is combination of different types of skills, and 29 respondents that is about (47%) said that a good researcher who possess all the types of skills mentions above. However only 1 respondent that is about (2%) thinks that good researchers are Those who have good academic skills while another 1 respondent that is about (2%) thinks that good researcher who have good cognitive skills. This means that a good researcher needs to have at least 5 types of skills out of 7. each type of skills has its own importance through the process of

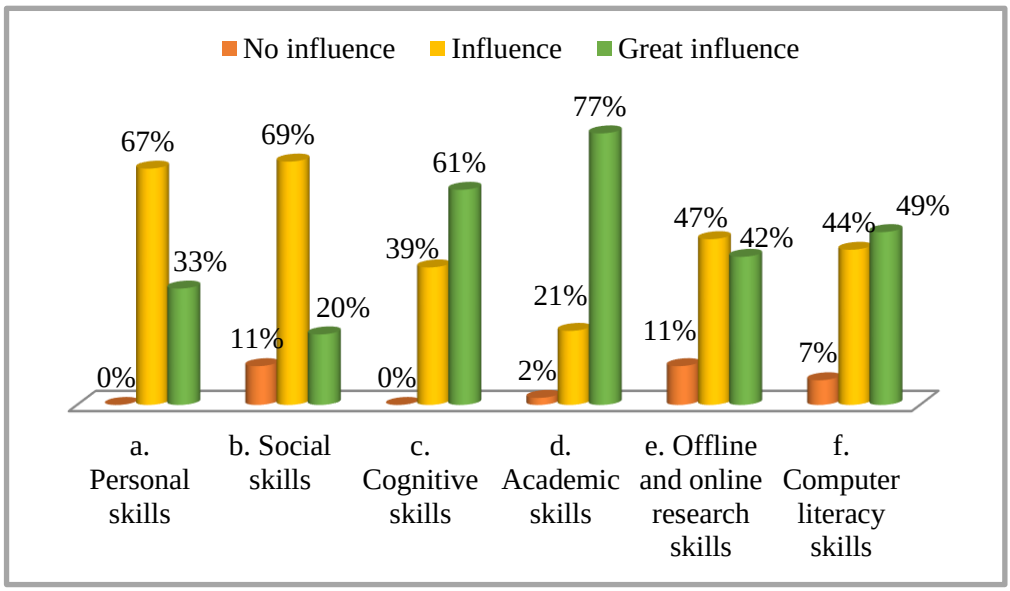
conducting research .it facilitates and helps avoid bias and academic dishonesty, and provide originality and credibility of researchers' works.

Item 11: The following are some important skills that any postgraduate researcher should have. Please mention to what extent each of them can influence the research quality and the final outcome?

Table 3. 15: Researchers' skills that can influence the research quality and the final outcome according to respondents

Option	No influence		Influence		Great influence	
a. Personal skills	0	0%	41	67%	20	33%
b. Social skills	7	11%	42	69%	12	20%
c. Cognitive skills	0	0%	24	39%	37	61%
d. Academic skills	1	2%	13	21%	47	77%
e. Offline and online research skills	7	11%	29	47%	25	42%
f. Computer literacy skills	4	7%	27	44%	30	49%

Graph 3. 2: Researchers' skills that can influence the research quality and the final outcome according to respondents



This table demonstrates Researchers' Skills that can influence the research quality and the final outcome. In this item, respondents have been asked to circle the appropriate extent of influence of each type of skills. The first choice stands for no influence. The second one stands for influence, and the last one stands for great influence. It is clear from the table, according to my respondents, that academic skills (77%), cognitive skills (61%) and computer literacy skills (49%) has a great influence on the research quality. while social skills (69%), personal skills (67%), and online offline research skills (47%) has an influence on the quality of research. we extract from respondents' answers that all types of skills that every researcher should have influences the research quality to a great extent.

Section four: students' computer literacy skills

Item 12: According to you, is there a relationship between research quality and computer literacy skills?

Table 3. 16: The existence of a relationship between research quality and computer literacy skills according to respondents

Option	Respondents	Percentage
a. Yes	50	82%
b. No	11	18%
Total	61	100%

This question aims to collect students' opinions about if there an existing relationship between computer literacy skills and research quality. as it is shown on the above table, the majority that represents (82%) of the respondents believe that there is a relationship between research papers quality and computer literacy skills, whereas (18%) of the respondents stated that there is no relationship between the two variables. Thus, the existence of relationship between computer literacy skills and research has been validated.

Item 12.a: if yes what kind of relationship exist between them?

Respondents justifications

The answers were varied, yet interrelated. They believe that computer literacy skills improve the research papers' quality for a considerable number of reasons. they stated that computer literacy skills Facilitate the research process, and save time, efforts, and money. In addition, "it paves the way to find reliable sources which offers credibility to researcher's works", as well as it Organizes, refine the Format and content of research. last but not least, "it plays a major role on data processing and the statistical analysis of data". This means that there is a strong relationship between the computer literacy skills and the research papers quality.

Item 13: How long have you been using computers?

We asked them for how long they have been using computers. The minority stared using computers 2 years ago when the majority used their computers for more than 10 years. This means that most of respondents are familiar with the use of their computers.

Item 14: Do you currently have a computer or a regular access to a computer?

Table 3. 17: respondents' regular access to computers

Option	Respondents	Percentage
a. Yes	61	100%
b. No	0	0%
Total	61	100%

The table below shows the respondents' regular access to computers .as it is clearly observed, all the respondents voted for "YES". this means that all students are able to access their computers.

Item 14.a: If yes, for which purpose do you use it most?

Table 3. 18: The purpose of respondents' use of computers

Option	Respondents	Percentage
a. Entertainment	17	28%
b. Educational purposes	23	38%
c. Research purposes	21	34%
Total	**61**	**100%**

We asked them if they have regular access to computer, all of them answered yes. so, the purpose from this sub question is for what purpose they use it. the table above demonstrates

the purpose of respondents' use of computers. it shows that the three values are convergent, where entertainment purpose took (28%), research purposes took (34%) and the educational purpose took (38%). This means that students use their computers in learning and searching more than for entertainments.

Item 15: Have you ever been taught to use a computer before being at university?

Table 3. 19 : respondents' responses about whether they have been taught how to use computers before being at university

Option	Respondents	Percentage
a. Yes	43	70%
b. No	18	30%
Total	61	100%

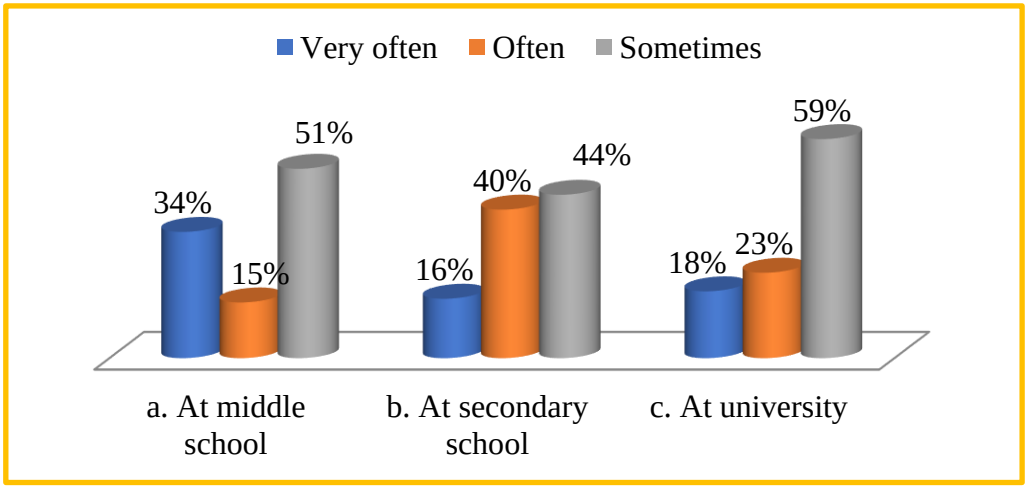
The table below present respondents' answers about whether they have been taught how to use computers before being at university or not. it shows that 43 respondents that is about (70%) answered "YES" to they have been taught how to use computers before studying at university, and 18 respondents that is about (30%) answered "NO". this means that the majority have taken lessons on how to use computers and know how to handle their devices.

Item 16: How often have you been taught how to use a computer?

Table 3. 20: respondents' frequency of learning the use of computers in the different learning streams

Stream	Very often		Often		Sometimes	
a. At middle school	**21**	**34%**	**9**	**15%**	**31**	**51%**
b. At secondary school	**10**	**16%**	**24**	**40%**	**27**	**44%**
c. At university	**11**	**18%**	**14**	**23%**	**36**	**59%**

Graph 3. 3: respondents' frequency of learning the use of computers in the different learning streams



The table below present Students' frequency of learning the use of computers in the different learning streams. As it is observed that the majority at middle school (51%), secondary school (44%), and university (59%) claimed that they have been taught how to use a computer sometimes. This means that there is no enough attention spotted towards teaching computer literacy at all streams. Thus, this explains that even if the majority of students possessed computers, they still face difficulties in dealing with their computers specifically in their research process.

Item 17: How do you find the content you have been taught at university?

Table 3. 21: respondents' attitudes towards the content they have been taught at university

Option	Respondents	Percentage
a. Very informative	14	23%
b. Quite informative	35	57%
c. Not informative at all	12	20%
Total	**61**	**100%**

The table (a) above indicates the respondents 'attitudes towards the content they have been taught at university. 12 respondents that is about (20%) claimed that it was not informative at all, and 14 respondents that is about (23%) said it was very informative. meanwhile the majority 35 respondents that represents (57%) believed it is quite informative. this means that the computation sessions somehow were helpful in a way.

Item 17.a: justify your answer please

Respondents justifications

We asked them to justify their answers. First, those who answered very informative said that the content was related to their studies and helpful when it comes to their dissertations. Then, those who answered quite informative stated that "it did not cover everything they needed", the devoted time to ICT sessions was insufficient to apply, and the sessions need to be organized in small groups. Also, the computer hardware and software were outdated. While those who have chosen not informative declared that it was the same content they studied in middle and high school which means they already know it. A respondent summarized some points by saying that "the devoted time was Insufficient, there was a lack of computer number and the content taught did not cover what they really needed". Also, teachers used the French language and they were not that professional.

We extract from respondents' justifications that even if the majority found it informative to an existent, there still numerous shortcomings when it comes how the content is taught, the availability of computers' hardware and software, the devoted time to computation sessions and used teachers.

Item 18: Are you satisfied with the way computer literacy skills are being taught at university?

Table 3. 22: respondents' points of view about the way they learn computer literacy skills at university

Option	Respondents	Percentage
a. Yes	11	18%
b. No	50	82%
Total	61	100%

The table below illustrate respondents' satisfaction with the way they learnt computer skills at university. as it is observed, 11 respondents which represent (18%) were satisfied; and 50 respondents, which are the majority, that is about (82%) were not satisfied. This means that computation sessions were not that informative as it was mentioned in item 17.

Item 18.a: justify your answer please

Respondents justifications

We asked them to justify their choices. On one hand, those who answered "YES" said that the provided information was Helpful in their writing their dissertation. On the other hand, those who answered "NO" claimed that it was only a "Theoretical experience". As also there is the problem of crowded rooms, insufficient devoted time, "irrelevancy of the content taught and the incompetent teachers". As well as there had been a Lack of equipment and "materials which made it hard to practice properly".

Consequently, even if there is established session for ict, it is not efficient and a need to spot more attention and importance to computer literacy skills so that "it helps them in their studies and research process".

Item 19: As a postgraduate researcher, in which of the following stages of the research process do you need computer literacy skills?

Table 3. 23: Respondents' vie about research stages where students need computer literacy

Option	Respondents	Percentage
a. At the beginning: When searching for a research topic and the related literature	5	8%
b. During the research process: When collecting and analysing your data	3	5%
c. At the end of the research process: When writing and organizing your final draft	2	3%
d. All of them	51	84%
Total	61	100%

This question aims to discover at what stage computer literacy is used the most. The table below demonstrate Research stages where students' need computer literacy skills. as it is shown, 5 respondents that is about (8%) stated that they need it at the beginning "When searching for a research topic and the related literature. While 3 respondents that is about (5%) said they need it During the research process "When collecting and analysing your data", and 2 respondents that is about (3%) At the end of the research process "When writing and organizing your final draft". However, 51 respondents that about (84%) and which are the majority believe that they need it in all of them. this means that computer literacy skills are helping them through all the stages of doing their researches from the beginning till the end.

Item 20: If you know that computer literacy refers to the knowledge and ability to use computers and related technology efficiently, with skill levels ranging from elementary use to computer programming and advanced problem solving (Wiktionary, 2020), how would you rate your proficiency in the following computer literacy programmes and applications?

Table 3. 24: Respondents' evaluation of their proficiency in computer literacy programmes and applications

Statement	Excellent		Good		Average		Poor	
a. Word processing applications	9	19%	25	52%	12	25%	2	4%
b. Database applications	3	5%	18	38%	18	38%	9	19%
c. Web search engines	8	17%	27	56%	12	25%	1	2%
d. Communication Applications	20	42%	16	33%	9	19%	3	6%
e. Google forms and spreadsheets applications	7	15%	16	33%	16	33%	9	19%
f. Presentations applications	6	13%	21	44%	15	30%	6	13%
g. Converting and printing	13	27%	18	38%	14	29%	3	6%

The table below illustrates Students' evaluation of their proficiency in computer literacy programmes and applications. It shows that:

- at word processing: the majority (52%) are good, whereas the minority (4%) are poor.

- at database application: the majority (38%) are good, and the minority (5%) are excellent.
- at web search engines: the majority (56%) are good, whereas the minority (6%) are poor.
- at communication applications: there is two highest percentages; good that is about (38%), and average that is about (38%). while the minority (15%) are excellent.
- At presentation application: there is two lowest percentages; poor that is about (13%), and excellent that is about (13%). while the majority (44%) are good.
- At converting and printing: the majority (38%) are good, whereas the minority (6%) are poor

We extract from respondents' answers that the majority of students are good in all the computer applications mentioned above. This means that they can manage the basic skills of computer literacy which is essential in the research process.

Item 21: Do you think that having good computer literacy skills/ being a computer literate may facilitate the research process?

Table 3. 25 :respondents' view about whether being a computer literate may facilitate the research process

Option	Respondents	Percentage
a. Yes	60	98%
b. No	1	2%
Total	61	100%

The table above demonstrate Students' points of view about whether being a computer literate may facilitate the research process or not. As it is clearly observed, 1 respondent that

is about (2%) state that it does not facilitate the research process; however, the majority 60 respondents that is about (98%) claimed that computer literacy facilitate the research process. This means computer literacy skills plays a significant role in the research process.

Item 21.a: justify your answer, please

Respondents justifications

We asked them to justify their answers. on one hand, the one who said it does not facilitate think it is not that big deal to write on "word" or look for information on the internet. on the other hand, those who answered with yes claimed that computer literacy provides an Easy access to sources and information .as it makes the researcher gains time and efforts and saves money. It helps at the process of analysis and gives accuracy and credibility to researchers' works; and finally, it "Improves research quality".

We extract from respondents' answers that the majority approve on the concept that computer literacy plays a major role in the facilitation of the process of conducting research, as it improves the research quality because of several reasons such as the credibility given and the accuracy to the work.

Item 22: Do you think that teaching academic writing and the research course using computers may improve students' research paper writing quality?

Table 3. 26: respondents' views about whether teaching academic writing and research courses using computers may improve their research paper writing quality

Option	Respondents	Percentage
a. Yes	**53**	**87%**
b. No	**8**	**13%**
Total	**61**	**100%**

The table below prostrate Students' points of view about whether teaching academic writing and the research course using computers may improve their research paper writing quality or not. the majority which represents 53 respondents that is about (87%) said "YES", while 8 respondents that is about (13%) said "NO". this means that establishing workshops of academic writing and research methodology that are reinforced with computer devices helps better in the delivery of the content taught in courses and the research quality of students works and research papers.

3.3 Teachers' Questionnaire

This questionnaire is designed for EFL teachers at Mohamed Kheider University of Biskra in the academic year: 2020-2021.

3.3.1 Aims of the questionnaire

Teachers' questionnaire seeks to collect the necessary data in order to understand the role of the computer literacy skills in the improvement of research papers quality. It aims at revealing teachers' points of view towards the importance of the research process and research skills. As it also aims to report teachers' computer literacy skills and their opinions and attitudes towards its use in the process of conducting and writing a research.

3.3.2 Description of the questionnaire

The questionnaire (see appendix B) has been administered to EFL teachers of English section in order to reveal their opinions about the role of computer literacy skills in the improvement of research papers quality. The questionnaire was distributed online because of the health situation we have been put in, COVID-19 VIRUS. This questionnaire consisted of

fifteen (15) questions which are organized in a logical order and managed in form of closed ended and opened ended questions.

3.3.3 Analysis and Interpretation of Result

Item 1. Would you specify your gender please?

Table 3. 27: Teachers' gender distribution

Option	Respondents	Percentage
A. Female	**4**	**27%**
B. Male	**11**	**73%**
Total	15	100%

From the table above, a clear notice might be taken that the target population consists of four females presented with percentage of 27%, and eleven males with percentage of 73%. That implies that males have the desire to teach more than females.

Item 2. Would you specify your academic degree and qualification please?

Table 3. 28: Teachers' academic degree and qualifications

Option	Respondents	Percentage
A. Magister	**9**	**60%**
B. Doctorate	**6**	**40%**
Total	**15**	**100%**

Table (3.28) demonstrates Teachers' academic degree and qualifications. In an attempt to seek information about the teachers' degree and qualifications, a question was addressed to them and the results obtained show that only six of them have Doctorate that represent 40% of the whole sample, and nine of them have Magister that represent 60% of the whole sample.

Item 3. How long have you been teaching at university?

Table 3. 29: Teachers' teaching experience at university

Option	Respondents	Percentage
A. 1-5	**7**	**47%**
B. 5-10	**2**	**13%**
C. More than 10 years	**6**	**40%**
Total	**15**	**100%**

The aim of this question is to know the teachers' experience in teaching English at university. As the table below presents ,47% from the total sample declared that they have been teaching English for one to five years. And only 13% of the teachers stated that they have been teaching English for less than five to ten years and five teachers making up 60% declared more than 10 years. This means there is a mixture in the experience level of teachers.

Item 4. How long have you been supervising master students?

Table 3. 30: Teachers' experience in supervising master students

Option	Respondents	Percentage
A. 1-5	7	47%
B. 5-10	5	33%
C. More than 10 years	3	20%
Total	15	100%

The teachers' experience in supervising master students plays a significant role in having a knowledge about the factors that may affect the research quality. Hence, 47% of the

teachers have an experience of one to five years. Otherwise, 33% of them have an experience of five to ten years. And only 20% have an experience of more than ten years. This means that teachers are experienced to certain extent.

Item 5. According to you, research is:

Table 3. 31: Research from teachers' points of view

Option	Respondents	Percentage
A. A necessity to complete accomplishing a degree	**0**	**0%**
B. A tool for refinement and adjustment	**0**	**0%**
C. A tool to improve one's personal knowledge	**0**	**0%**
D. An attempt to find solutions (s) to certain problems(s)	**0**	**0%**
E. All of them	**11**	**73%**
F. More than one answer	**4**	**27%**
Total	15	100%

A question was addressed to teachers to see their points of view about what research is .From the obtained findings in table 3.31, no one of the teachers that represent 0% chose the first four options which state that research is a necessity to complete accomplishing a degree, research is a tool for refinement and adjustment, research is a tool to improve one's personal knowledge and research is an attempt to find solutions to certain problems. However, 73% of teachers believe that research should be defined by all the options that are mentioned. And only 27% of them indicated that research is more than a necessity to complete accomplishing a degree, a tool for refinement and adjustment, a tool to improve one's personal knowledge and an attempt to find solutions to certain problems. These responses summarize that teachers are aware of the importance of the research and that it can include several aspects

Item 6: How do you consider conducting research at university?

Table 3. 32: Teachers' views about conducting research at university

Option	Respondents	Percentage
A. Very important	**14**	**93%**
B. Somehow Important	**1**	**7%**
C. Not important at all	**0**	**0%**
Total	**15**	**100%**

The importance of conducting research at university can be seen from different perspectives. So, based on the current data presented in table 3.32 which represents Teachers' views about conducting research at university, 93% of teachers affirm that conducting research at university is very important. And only one teacher who represents 7% of the sample declared that conducting a research at university is somehow important. While 0% went for option c which says that it is not important at all. Therefore, the results obtained reveal that teachers are enlightened about the importance of conducting a research at university.

Item 06.a: If it is very important, is that for:

Table 3. 33: People for whom conducting research is very important

Option	Respondents	Percentage
a. Students	**0**	**0%**
b. Teachers	**0**	**0%**
c. Administrators	**0**	**0%**
d. All of them	**15**	**100%**
Total	15	100%

A following question to the previous one was asked to know for whom conducting research is very important according to the teachers' perspective. 100 % of the teachers stated that all the students, teachers and administrators are concerned with the importance of conducting research at university.

Item 5.b: Others

Teachers were asked to provide if there are any additional answers than the suggested ones. They claimed that "the society" and "the whole community" are concerned in conducting research. This means that conducting research has a great importance and value at all levels and for all people, and mainly for the whole educational community.

Item 7. Do you think that research process is?

Table 3. 34: Teachers' opinions towards research process

Option	Respondents	Percentage
A. An easy task	**1**	**7%**
B. A hard task	**14**	**93%**
Total	**15**	**100%**

As it is observed from the table below that represents teachers' opinions towards research process, 93% of teachers claimed that research process is a hard task. While, one teacher that represents 7% of the whole sample said that it is an easy task. This means that Researchers find struggles during conducting their research.

Item 7.a: justify, please

Teachers' justifications

Teachers who claimed that research process is an easy task justified their answer by saying that it depends on researcher himself/herself. While teachers who said that it is a

hard task explained their choice by saying that most of "the students do not master research methodology" and they find difficulties with the availability of sources. others said that research process is demanding task both mentally and physically, as it needs a lot of "hard work", "competence", patience, and perseverance. So according to the majority of responses, research is a challenging process that requires a higher degree of qualification and work.

Item 8. Which of the following factors may in a certain way affect the research quality among EFL students?

Table 3. 35: Factors that may affect EFL students' research quality

Option	Respondents	Percentage
A. **The quality of instruction**	0	0%
B. **The availability of sources**	0	0%
C. **Supervisor's guidance**	0	0%
D. **The researcher's qualities and competencies**	0	0%
E. **All of them**	11	73%
b+c+d	4	27%
Total	15	100%

Table (3. 35) shows factors that may affect EFL students' research quality. Since there are plenty of factors that may affect EFL students' research quality, a couple of factors were given to teachers to choose from. the results obtained showed that 73% of the teachers chose the option "e" which refers to all the factors mentioned, and 27% of them said that the availability of sources, supervisor's guidance and the researcher's qualities and competencies are the factors that may affect EFL students' research quality. While no one of the teachers

chose one option and that give 0% to the options a, b, and c. This means that all the factors mentioned above effects the EFL students' research quality.

Item 8.a: Others

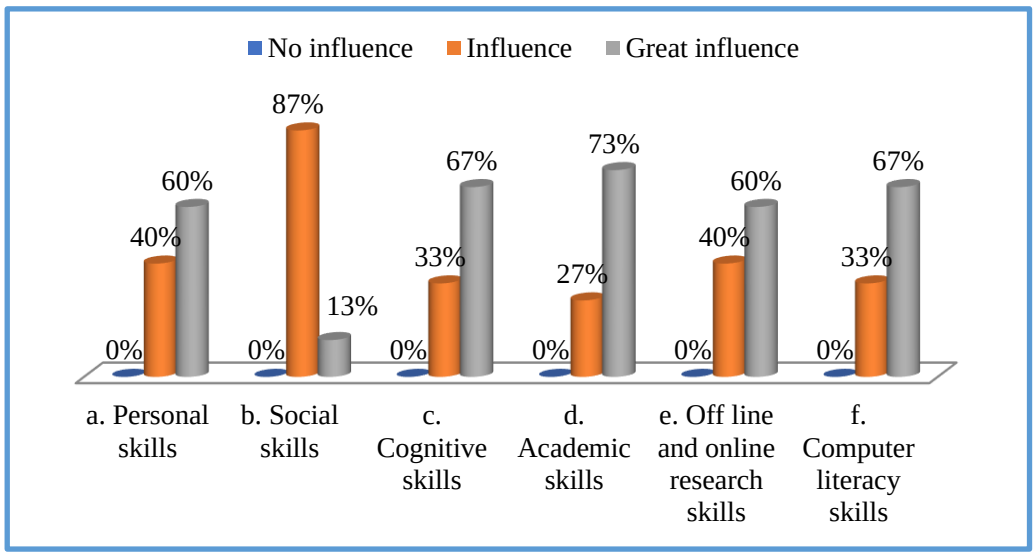
Teachers were asked if there are any other factors than the mentioned above. They added Unethical issues**.** Thus, academic dishonesty has an effect on the research quality of students.

Item9. The following are considered to be the most important skills any researcher should have. Please mention to what extent each of them can influence the research quality and the final outcome?

Table 3. 36: teachers' points of view about Research skills that can influence the research quality and the final outcome

Option	No influence		Influence		Great influence	
A. Personal skills	**0**	**0%**	**6**	**40%**	**9**	**60%**
B. Social skills	**0**	**0%**	**13**	**87%**	**2**	**13%**
C. Cognitive skills	**0**	**0%**	**5**	**33%**	**10**	**67%**
D. Academic skills	**0**	**0%**	**4**	**27%**	**11**	**73%**
E. Off line and online research skills	**0**	**0%**	**6**	**40%**	**9**	**60%**
F. Computer literacy skills	**0**	**0%**	**5**	**33%**	**10**	**67%**

Graph 3. 4: teachers' points of view about research skills that can influence the research quality and the final outcome



In table (3.36) and graph (3.4) that represent Research skills that can influence the research quality and the final outcome , we see teachers' points of view about how can research skills influence the research quality and final outcome, concerning personal skills 40% of teachers said that they have an influence, 60% of them said that they have a great influence and no one said that they have no influence. About social skills we have 0% for no influence, 87% for influence and 13% for great influence. In cognitive skills option, no one of the teacher sad that they have no influence, 33% said that they have an influence and 67% said that they have a great influence. For academic skills 27% of teacher said that they have an influence on the research quality and final outcome, and 73% said they have a great influence, while no one said that it has no influence. Concerning the offline and online research skills, we have 0% for no influence, 40% for influence and 60% for a great influence. In the last research skills, which are computer literacy skills, 33% of teachers said that they have an influence, and 67% said that they have a great influence. The conclusion that can be obtained from this data is that all the research skills mentioned can influence the research quality and the final outcome according to teachers.

Item 10. Computer literacy refers to the knowledge and ability to use computers and related technology efficiently, with skill levels ranging from elementary use to computer programming and advanced problem solving (Wiktionary, 2020). Do you think that having good computer literacy skills is crucial for?

Table 3. 37: Teachers' opinions about those who should have good computer literacy skills

Option	Respondents	Percentage
A. Researchers	**0**	**0%**
B. Supervisors	**0**	**0%**
C. Both	**15**	**100%**
Total	**15**	**100%**

The table (3.37) shows percentages of those who should have good computer literacy skills according to teachers' point view. Since computer literacy plays an important role to both supervisors and researchers, a question was addressed to teachers to see their opinion about this point. Therefore, 100% of teachers which means all of them affirmed that both of researchers and supervisors should have a good computer literacy.

Item 10.a: justify, please

Teachers' justifications

A question was asked to teachers to justify their answers. They stated that since researchers and supervisors are partners in work, they cannot work together if one of them is not well versed in such an important side of research as well as the process of supervision. They stated also that researchers need more training in specific software to elaborate a good research like R and NVivo or SPSS for social and human sciences field. One of teachers summarized everything by saying that "Having good computer literacy skills is crucial for

researchers and supervisors. Research are in need of good computer literacy skills because the latter have become very useful in the different stages of the research such as data collection, data sampling, data analysis, etc. Supervisors also could benefit from literary skills especially in the correction and scrutinize their students' research works."

We extract from teachers answers that the use of computer literacy skills needs to be managed by both researchers and supervisors because it will facilitate the work, make it faster and gives concise results.

Item 11. Do you think that having good computer literacy skills/being a computer literate may facilitate the research process?

Table 3. 38: teachers' points of view about computer literacy skills and research process facilitation

Option	Respondents	Percentage
a. Yes	**14**	**93%**
b. No	**1**	**7%**
Total	15	100%

In table (3.38) , the results obtained from teachers responses who answered "Yes" assert with percentage of 93% that computer literacy and skills facilitates the research process, while only one teacher answered "No" given the percentage of 7% which mean he/ she doesn't see that computer literacy and skills facilitate the research process.

Item 11.a: justify, please

Teachers' justifications

Teachers who answered with "yes" justified their chosen option by writing that computer literacy makes the research process easier and effective in terms of time

consumption, quality and relevance of data, and quality of output and paper formatting. Some others said that "Researchers and students should be trained for years to specialize in software development and editing techniques not only to be literate in order to cope with the huge advancements in the world". And the teacher whose answer was "no", justified his answer by saying that researchers and supervisors gain time in delivering the work and its feedback.

We extract from teachers' answers that having good computer literacy skills is crucial for researchers and supervisors. They are both in need of good computer literacy skills because the latter have become very useful in the different stages of the research such as statistics, data collection, data sampling, data analysis, etc.

Item 12. As a supervisor, in which level researchers usually need computer literacy skills?

The need for computer literacy in research levels

table 3. 39: The need for computer literacy in research levels according to teachers' views

Option	Respondents	Percentage
a. Level 1- when searching for research topics	0	0%
b. Level 2- when starting writing the first draft	0	0%
c. Level 3- when preparing the fieldwork	0	0%
d. Level 4- when organizing the final draft	0	0%
e. Level 5- when preparing the final presentation	0	0%
f. All of them	13	87%
g. More than one answer	2	13%
Total	15	100%

A question was addressed to teachers to know their opinion about the need for computer literacy in research levels. As it is observed from the table below, 0% was dedicated to the following levels: when searching for research topic, when start writing the first draft, when preparing the field work, when organizing the final draft and when preparing the final presentation. However, 78% of teachers said that all the research levels need a computer literacy, while 13% said that more than one level need a computer literacy. These results spot light on the awareness of teachers about the importance of computer literacy in conducting a research in all its levels.

Item 13. Do you think that the mastery of computer literacy programmes and applications is crucial even for the supervision process?

table 3. 40: The importance of mastering computer literacy for the supervision process

Option	Respondents	Percentage
c. Yes	**15**	**100%**
d. No	**0**	**0%**
Total	**15**	**100%**

This question aims to extract teachers' points of view whether computer literacy is important in the process of supervision. as it is shown in the table below, all teachers answered with "yes". This means that the importance of mastering computer literacy is very crucial for the supervision process.

Item 13.a: justify, please

Teachers' justifications

A question was asked to justify their answers. all teachers believe that since everything become digital in this age, Researchers and supervisors will gain time and efforts in delivering the work and its feedback; as well as in correcting, revising, and editing besides

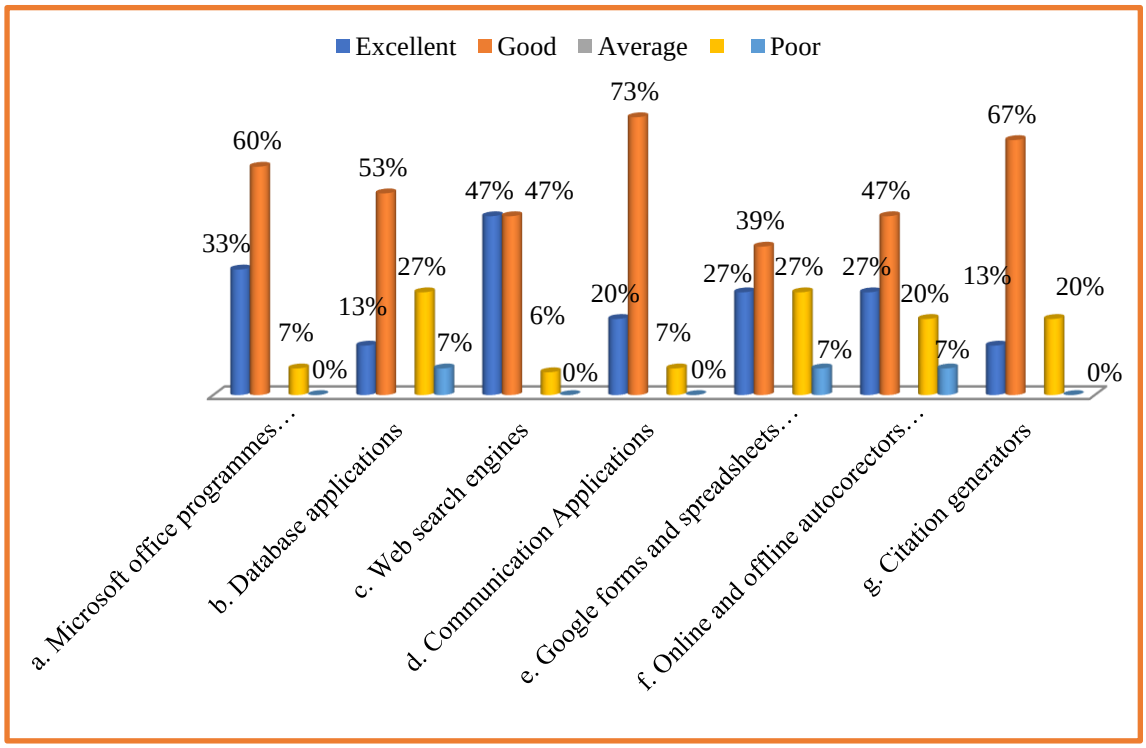
checking plagiarism and academic theft. A teacher summarized everything by saying "The mastery of computer literacy programmes and applications is crucial even for the supervision process in the sense that research nowadays have become more and more in need of computer applications to check the originality of the research and find out cases of plagiarism". This means that computer literacy skills enhance the quality of supervision. It makes it easier and more efficient, as it prevents also from academic dishonesty.

Item 14. As a supervisor, how do you evaluate your proficiency in the following computer literacy programmes and applications?

table 3. 41: Teachers' self-evaluation of their proficiency in computer literacy

Statement	Excellent		Good		Average		Poor	
h. Microsoft office programmes (word, excel, PowerPoint, etc)	5	33%	9	60%	1	7%	0	0%
i. Database applications	2	13%	8	53%	4	27%	1	7%
j. Web search engines	7	47%	7	47%	7		0	
k. Communication Applications	3	20%	11	73%	1	7%	0	0%
l. Google forms and spreadsheets applications	4	27%	6	39%	4	27%	1	7%
m. Online and offline autocorectors and plagiarism checkers	4	27%	7	47%	3	20%	1	7%
n. Citation generators	2	13%	10	67%	3	20%	0	0%

graph 3. 5: Teachers' self-evaluation of their proficiency in computer literacy



the table and graph below demonstrate Teachers' self-evaluation of their proficiency in computer literacy. Since teachers are always exposed to researches, their proficiency in computer literacy is very important, the results obtained shows that concerning Microsoft office programmes proficiency 33% of teachers said that they are excellent, and 60% of them declared that they are good. Only one teacher evaluated his proficiency as average, and no one of them evaluated it as poor. In data applications proficiency 13% of teachers evaluated their proficiency as excellent, while 53% said that they are good, 27% declared that they are average, and only 7% which represents one person said that his/her proficiency is poor. In web search engines proficiency, we have 47% for excellent, 47% as well for good, 6% for average and 0% for poor. And in communication applications proficiency 20% of teachers said that they are excellent, 73% declared that they are good, only 7% said that they are average and no one of them has a poor proficiency. Concerning google forms and spreadsheets application we have 27% for both excellent and average, 39% for good, and 7% for poor. In the matter of online

and offline auto correctors and plagiarism checkers proficiency, 27% of teachers said that they are excellent, 47% said that they are good, 20% said that they are average, and only 7% said that they are poor. And about citation generators proficiency, we have 13% for excellent, 67% for good, 20% for average and 0% for poor.

We extract from teachers' answers that most of them are proficient, and can handle and manipulate the application and programmes mentioned above, which makes them good to certain extent.

Item 15. Being a computer literate affects students' research process, research product and the final outcomes?

Table 3. 42: teachers' agreement or disagreement about whether being a computer literate affects student research process, research product and the final outcomes

Option	Respondents	Percentage
c. Agree	15	100%
d. Disagree	0	0%
Total	**15**	**100%**

From table (3.42), We observed that 100% of teachers affirmed that they agree that being a computer literate affects positively the student's research process, research product and the final outcomes.

Item 15.a: explain, please

Teachers' explanations

A question was asked to explain their choices. They claimed that computer literacy skills effect the quality of the research positively. It avoids different writing problems and help students to do many research tasks in a short period of time. a teacher summarized everything

said by saying “If the student is a computer literate, s/he would use her/his computer skills to overcome a number of problems related to methodology such as data collection and data analysis. The reliability of and validity of the research product are more likely to be reinforced. Finally, her/his research would find more support and credibility when presented and defended.”.

We extracted from teachers answers that Students with high qualities in computer literacy produce better and more refined final products in terms of quality of references, layout and design of the dissertation and referencing techniques and “Those who lack these skills find many difficulties”.

3.4 Discussion of Results

The main aim of the current study is to investigate the role of learners’ computer literacy skills in enhancing their research papers quality. It also aims at exploring the main difficulties learners face in both levels of research (the research process and product). As it seeks to explore teachers’ and students’ attitudes towards the use of computer literacy skills to improve EFL learners’ research papers quality. Therefore, this study tends to support the implementation of computer literacy skills as new way in teaching research methodology to improve learners‟ research papers quality. The findings of the current study are presented and discussed, in the form of answers to the questions of this study as follows:

4.3.1. Students’ Perceptions Towards the Role of Computer Literacy Skills

The first collection tool is students’ questionnaire to have insight into their points of view about the role of computer literacy skills in the improvement of research papers quality. From the results obtained from students’ questionnaire, most master EFL students faced many difficulties when it comes to conducting research and writing their research papers, even

though they are familiar with how to conduct a research. they were not satisfied with the way the research methodology courses are taught. They claimed that teachers still teaching with the traditional manners. they mentioned as well, it was only theoretical, and there the integrated technology and devoted time for workshops were not enough and made it hard to practice properly. According to Ikolo & Okiy (2012), "the acquisition of computer skills should commence during the initial stages of the undergraduate curriculum". So, for a better quality of research methodology teaching, computer literacy skills are required to be integrated into curricula of EFL students. Students' attitudes towards the role of computer literacy skills were positive. According to Johnson Oseghale & John (2014)," it is true that students computer literacy enhances their academic performance in secondary schools generally, that computer literate students perform better academically than the non-computer literate". Then they added "Students should be taught how to use the computer facilities to search for valid information that are related to their academic work". Students' confirmed the great contribution of computer literacy skills in improving EFL students' research papers as a crucial device for success and developing research quality. According to Singh (2016) "Computers are used in scientific research immensely and it is an important tool. Research process can also be done through computers" (p.128). The obtained feedback affirmed that computer proficiency is needed at all stages of the research process from the beginning till the end. As it affirmed also that Computer device as an acceleration tool deserves to be adopted as it facilitates the research process and to be added to academic writing course. According to Barrera, Rule, & Diemart (2001) research' findings, "students consistently wrote more when using the computer despite equitable amounts of time engaged in writing in both conditions" (p. 226). Another study conducted by Marmat (2013), "The research paper shows the online library facility was of immense importance to the research in saving time and money and availability of the information at one point of time. ICT has improved the quality and quantity of the education

provision" (p.550). It means that surfing the internet through ICTs, especially computers, saves money, efforts, and time; as well as it gives credibility and reliability the research work. Yet, students claimed that academic writing as well as research methodology courses require some improvement and conditions as time allocation, establishment of, and providence of the required equipment. To conclude, the study denotes that computer literacy skills are needed to be possessed in order to improve better learners' research papers quality.

4.3.2. Teachers Attitudes Towards to The Role of Computer Literacy Skills

The second data collection tool is teachers' questionnaire which aims to extract teachers' perceptions and attitudes towards the use of computer to achieve better quality of research papers. The analysis provided positive attitudes and feedback towards the use of computer literacy skills in dealing with the research papers and how it improves its quality. Even though teachers are experienced enough, they admitted that research process is a hard task. They believed that computer literacy skills play a major role in the enhancement of the research papers quality. it facilitates the research process. It provides reliability and validity of the finding and the research product. Another important result that has been reached through the teachers' questionnaire is t*that computer literacy skills are crucial for the research supervision. It enables them to check research originality and plagiarism, as well as to correct, revise, and edit students' research works. The findings revealed the teachers' awareness of the use of computer technology in foreign language teaching i.e. English language. They emphasised on students' practice on computers to foster their research skills. Finally, teachers agreed that computer literacy skills facilitate the research process and it improves it to certain extent

These questionnaires were a useful tool of gathering data from students and teachers. They gave us the chance to explore and point to some difficulties that EFL students face when in

their process of conducting research. As well as, They gave us the opportunity to know students' and teachers' attitudes towards the role of computer literacy skills and its use in the improvement of research papers quality. The results obtained were valuable in answering the research questions. as it has been mentioned by Martin& Dunsworth (2007), "Previous studies have confirmed that computer competency is essential to both academic and career achievement (Davis, 1999)" (p.124). As a result, based on the obtained results of the current research, the research hypotheses are validated. The study findings revealed that computer literacy skills can help EFL learners to improve their research papers quality.

Summary

This chapter deals with the analysis and interpretation of data gathered. It was an attempt to raise EFL teachers' and students ' awareness about the relationship between the importance of computer proficiency and the quality of research. It is concerned with getting real data about students' perception and teachers' attitudes towards the role of computer literacy skills in the enhancement of the research papers quality. The results have shown that teachers and students of English language have positive attitudes towards the role of computers in dealing with research methodology courses. Teachers and students are aware of the importance of the implementation of ICTs in teaching English language. Therefore, they need to be provided with enough materials and devises and devote more time to ict sessions and workshops.

GENERAL CONCLUSION, LIMITATIONS,

AND RECOMMENDATIONS

General Conclusion

The current dissertation seeks to shed light on the role of learners' computer literacy skills in enhancing their research papers quality. It is an attempt to raise EFL students' awareness about the use and importance of ICT devices and the computer literacy skills in conducting research at university. It gives insight into the different problems that EFL postgraduate researchers encounter when preparing and writing their research papers. Thus, this dissertation is conducted to confirm or reject the hypothesis stating that CLS can improve EFL learners' research papers quality. This dissertation was divided into three chapters. The first two chapters are devoted to the theoretical background of this study while the last chapter represents the fieldwork

First chapter is an attempt to provide an overview on research and research papers. It is divided into two sections; the first section addresses research definition, significance, purpose, benefits, objectives, types, characteristics, and criteria of research. In addition, it sheds light on educational research, and research in foreign language teaching. The second section deal with the perception of quality, definition of research paper, its elements, characteristics, and types.

Second chapter is an attempt to provide an overview and deep clarification on computer literacy. It tackles the Definition of ICT and computer. Then it gives an overview about the definition of computer literacy and its history. Also shed light on teaching computer literacy and its assessment. furthermore, it lists the Importance of computer literacy in EFL learning and teaching as well as in research, and Importance of being computer literate. Then it spots light on some of the Factors that affect the Utilization of Computer.

Third chapter is devoted to the practical part of this research. Initially, through this chapter we aim to provide a description of the rational of each data collection method used in this study. Moreover, we attempt to describe each data collection method and data analysis;

and to interpret, discuss, and synthesis the results. Finally, this chapter provides a thorough discussion of the findings in order to answer the research questions, and to test the hypotheses suggested in the general introduction of this study. In order to achieve the intended purposes, we adopted the qualitative research approach. Two data collection tools were employed, namely students' questionnaire that was distributed online to EFL Master students from the University of Biskra, and teachers' questionnaire. The students and teachers reported their positive attitudes towards the use of CLS as a device to facilitate the research process and improve the research papers quality.

On the basis of discussing and interpreting the results of the current investigation, it is argued now that the research hypothesis is confirmed. Consequently, it is proved that the use of CLS has a positive effect in facilitating the research process as well as improving students' research papers quality. Finally, we supported this conclusion with several implications that can help both teachers and students improve research papers quality, hoping that the results of this research will be a rich reference for further studies and of a good use for teachers and students.

Limitations of The Study

Like any study, the current one has limitations. The most important one is that this research was intended to be quasi-experimental. Workshop sessions were intended to be the third data collection tool. Is was planned to be used to test EFL master students' computer proficiency and their research papers quality before and after the treatment. However, it was canceled because of the COVID 19 circumstances. Moreover, the gap in literature in the relationship between computer literacy skills and research quality resulted in a huge lack of references concerned the variable of computer literacy skills.. 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 and the world.

Recommendations

Based on the results of this study, the researcher of this study suggests some recommendations to be future solutions to some issues that exist in the division of English at the University of Biskra:

- The administration is recommended to provide students with the needed materials especially computers and internet access;
- The administration sis recommended to fix the technical problems in ICT laboratories, as well as it should update its software;
- Since The majority of EFL students were not satisfied with the way the research methodology course is being taught, Teachers need to focus more on the practical side of the module with establishing more workshops and TD sessions for better delivery of the content taught of that course. The more students practice, the better they improve their research papers quality;
- The use of ICT tools, mainly computers, is recommended to be extended in teaching English language at the department;
- Students and teachers should manage the basic computer skills by subscribing in computer training programmes;
- Teachers should be aware of the factors that prevent their students from achieving better research papers quality;
- Teachers need to change their traditional teaching methods and focus more on practising what they teach to their students;
- The administrators should update the outdated references in the department library.

References

ACM, *ACM Code of Ethics and Professional Conduct*. 1993, Association for Computing Machinery.

Aduwa-Ogiegbaen, S. E., & Iyamu, E. O. S. (2005). Using information and communication technology in secondary schools in Nigeria: Problems and prospects. Educational Technology & Society, 8(1), 104-112.

Aesaert, K., van Braak, J., van Nijlen, D., & Vanderlinde, R. (2015). Primary school pupils ICT competences: Extensive model and scale development. **Computers & Education, 81**, 326-344. https://doi.org/10.1016/j.compedu.2014.10.021.

Ainley, J. (2018). Students and their computer literacy: Evidence and curriculum implications. Second handbook of information technology in primary and secondary education, 69-88.

Anderson, C. (1983). Computer Literacy: Changes for Teacher Education. Journal of Teacher Education, 34(5), 6.

Anderson, G., & Arsenault, N. (1998). *Foundamentals of educational research*. London: Falmer.

Balasubramanian, K., Clarke-Okah, W., Daniel, J., Ferreira, F., Kanwar, A., Kwan, A., West, P. (2009, July). ICTs for Higher Education. Background paper from the Commonwealth of Learning UNESCO World Conference on Higher Education. UNESCO World Conference on Higher Education Paris, 5 to 8 July 2009. Retrieved from http://unesdoc.unesco.org/images/0018/001832/183207e.pdf

Banari, V., & Beldiga-Vasilache, M. (2020). The role of computer in teaching-lerning process. Retrieved 18 August 2020, from http://www.mce.su/eng/archive/mce17/sect287/doc60875/

Barrera, M. T., Rule, A. C., & Diemart, A. (2001). The effect of writing with computers versus handwriting on the writing achievement of first-graders. Information Technology in Childhood Education, 2001(1), 215–228.

Barret, B. and Sharma, P. (2007). Blended Learning – Using Technology Inside and Beyond the Language Classroom. Macmillan

Basheer, B. (2013). The impact of Using Technology in teaching English as a Second Language. English Language and Literature Studies, Vol. 3 (1): 111-116.

Bassey, M. O. (1999). *Western education and political domination in Africa: A study in critical and dialogical pedagogy*. Westport, Conn: Bergin & Garvey.

Bavdekar, B., s. (2016). 5. Formulating the Right Title for a Research.Article: 53. Vol64

Beatty, K. (2015). *Teaching & researching: Computer-assisted language learning*. Place of publication not identified: Routledge.

Bowen, G. A. (July 01, 2010). From qualitative dissertation to quality articles: Seven lessons learned. Qualitative Report, 15, 4, 864-879.

Carlock, J., Eberhardt, M., Horst, J., &Kolenich, P. (2017). *The international student's guide to writing a research paper*. Pitt Series in English as a Second Language

Chamanla, M.J. (2014). Role of computer applications and tools in the scientific research process. *International Journal of Research in Science and Technology*, 3:33-40.

Chelli, S. (2017). Collection of master two-research methodology [pdf].

Christensson, P. (2006). Computer Definition. Retrieved 2020, Aug 14, from https://techterms.com

Collis, J., & Hussey, R. (2003). Business Research: a practical guide for undergraduate and postgraduate students. New York: Palgrave Macmillan.

Computer Literacy: What It Was and Eventually Became. (2019, July 12). Retrieved June 28, 2020, from https://news.elearninginside.com/computer-literacy-what-it-was-and-eventually-became/

Computer Skills. (2020, September 10). *Wikiversity*. Retrieved 11:37, august 10, 2020 *from https://en.wikiversity.org/w/index.php?title=Computer_Skills&oldid=2204615*.

Computer Skills: Definitions and Examples. (2020, May 21). Retrieved September 20, 2020, from https://www.indeed.com/career-advice/resumes-cover-letters/computer-skills

Daniel, I. (2018). Advantages of Being Computer Literate. Retrieved 5 August 2020, from https://danielifeanyichukwujn.com/advantages-of-being-computer-literate/

Davis, N. E. (2000). Teacher education in the information age: Working with ICT's influence. Invited speech and paper to the IFUT conference towards: 2010 Teacher Education in Ireland over the Next Decade, Dublin

Dornyei, Z. (2007). Research Methods in Applied Linguistics. New York, NY: Oxford University Press.

Fink, A., &Kosecoff, J. (1998). How to conduct surveys: A step-by-step guide (2nd ed.). Sage Publications, Inc.

Fred, L., & Perry, J. (2005). Research in applied linguistics: Becoming a discerning consumer (2nd Ed.). London, England: Routledge.

Gupta, G. (2006). Computer literacy. ACM SIGCSE Bulletin, 38(2), 115-119. doi: 10.1145/1138403.1138446

Hartley, R. (January 01, 2003). Ict, pedagogy and the curriculum edited by A. Loveless and V. Ellis. *Journal of Computer Assisted Learning, 19*, 141-142.

Hoffman, M., & Blake, J. (2003). Computer literacy: Today and tomorrow. *Journal of Computing Sciences in Colleges, 18*(5), 221-233.

Holz, S. (2019, March 05). Computer literacy: The invisible skills gap? Retrieved June 28, 2020, from https://blog.neolms.com/computer-literacy-the-invisible-skills-gap/

Hornby, A. S., In Turnbull, J., In Lea, D., In Parkinson, D., In Phillips, P., & In Ashby, M. (2010). *Oxford Advanced Learner's Dictionary of current English*.

Hubbuch, S.M, (4th Ed). (1996). Writing research paper across the curriculum. Orlando: Holt, Rinehart and Winston, Inc

IEEE, *IEEE Code of Ethics*. 1990, Institute of Electrical and Electronics Engineers.

Ikolo, V. E., & Okiy, R. B. (2012). *Gender Differences in Computer Literacy Among Clinical Medical Students in Selected Southern Nigerian Universities*. DigitalCommons@University of Nebraska - Lincoln.

InformationQ.com, Anonymous, Salesh, Winnie, Mohammed, I., Sulaiha.M, S.,Wsjiuwtyjende. (2017, August 31). About The Basic Parts of a Computer with Devices. Retrieved August 17, 2020, from https://www.informationq.com/about-the-basic-parts-of-a computer-with-devices/

Johnson Oseghale, D., & John, D. (2014). The Impact of Computer Literacy on Students' Academic Performance in Senior Secondary Schools in Esan West Local Government Area, Edo State, Nigeria. *Journal Of Education And Human Development*, *3*(3), 269. doi: 10.15640/jehd.v3n3a21

Journal of Learning and Teaching in Digital Age, 2020, 5(1), 16-23, Technology and English Language Teaching and Learning: A Content Analysis, Muhammad Bello Nawaila

Justin, J. (2012). 10 things you have to know to be computer literate. Retrieved 18 July 2020, from https://www.techrepublic.com/blog/10-things/10-things-you-have-to-know-to-be-computer-literate/

Kazemi, A., & Narafshan, M. H. (2014). Technology and English language teaching (ELT). Advances in Language and Literary Studies, 5(6), 60-67.

Kegel, R. H., & Wieringa, R. J. (2016, April). Measuring Computer Literacy without Questionnaires. In *BCSS@ PERSUASIVE* (pp. 61-65).

Kothari, C. R. (2004). Research methodology: Methods and techniques (2nd ed.). New Delhi, India: New Age International

Kumar, R. (2011). Research methodology: A step-by-step guide for beginners. Los Angeles: SAGE.

L. Oliveira, A. Bianchi.(2018). COMPUTER LITERACY IN THE DIGITAL AGE: SELF ASSESSMENT OF SKILLS IN HIGHER EDUCATION, ICERI2018 Proceedings, pp. 6216 6222.

Laraswati, I. (n.d.). Get More with English: RESEARCH (2014, August 9). Retrieved February 21, 2020, from http://iranadalaraswati89.blogspot.com/2014/08/research.html

Manowaluilou, N. (2008). *The importance of undergraduate's computer competency and information literacy skills: Marketing faculty's perspectives in Thailand* (Doctoral dissertation, University of Missouri--Columbia).

Marmat, G. 2013. Role of ICT in Sustainability of Research: A Conceptual Framework. *International Journal of Science and Research (IJSR)*, 2(4).

Martin F, Dunsworth Q (2007). "A Methodical Formative Evaluation of Computer Literacy Course: What and How to Teach", J. Inf. Technol. Edu., 6. [Online] Available from: http://jite.org/documents/Vol6/ (accessed 10 October, 2007).

Mason, J., & McMorrow, R. (2006). YACLD (yet another computer literacy definition) [Electronic Version]. Journal of Computing Sciences in College, 21(5), 94-100.

Montague, M. (1990). *Computers, cognition, and writing instruction*. Albany, N.Y.: State University of New York Press.

Montague, M. (1990). *Computers, cognition, and writing instruction*. SUNY Press.

Morrison, C., Wells, D., & Ruffolo, L. *Computer literacy basics* (5th ed.). Cengage Learning.

Moursund, D. (1982). Personal computing for elementary and secondary school students. In R. J. Seidel, R. E. Anderson, & B. Hunter (Eds.), *Computer literacy: Issues and directions for 1985* (pp. 73–84). New York: Academic Press.

Mujtaba, S., Mubarak, M. (2013). The use of Computer Technolgy in EFL Classroom: Advantages and Impications. Jounal of English Language & Translation Studies, 1, 61- 71

Mumtaz, S. (2000). Factors affecting teachers' use of information and communications technology: A review of the literature. Journal of Information Technology for Teacher Education, 9(3), 319–341.

Murray, J. & Kinnick, N. (2003). Contemporary Literacy: Essential Skills for the 21st Century, *Multimedia Schools 10*(2), 15-18

Myers, M. D. (2009). *Qualitative research in business & management*. Los Angeles: Sage.

Warschauer, M., & Healey, D. (1998). *Computers and language learning: An overview*. Cambridge: Cambridge University Press.

National Business Education Association. (1995). National standards for business education: What America's students should know and be able to do in business. Reston, Va: National Business Education Association.

O'Leary, Z. (2004). The essential guide to doing research. New Delhi: Sage Publications.

Pathak, R. P. (2008). Methodology of educational research. New Delhi, India: Atlantic.

Pokrivčáková, S. (2012). Research in foreign language education. Brno: MSD.

Ramirez (2010: 1)(Technology in elt).

Rick, V. (2020). The Promise of Computer Literacy. Retrieved 7 June 2020, from https://www.aacu.org/publications-research/periodicals/promise-computer-literacy

Robinson, H. (2009). *Emergent computer literacy* (1st ed.). London: Routledge.

Sekaran U, (2003). Research method for business: A skill building approach, 4th edition, John Wiley & Sons

Shewan, E. J. (2000). *Writing a research paper*. Christian Liberty Press.

Simonson, M. R. Maurer, M. Montag-Torardi, M.& Whitaker M. (1987), Development of a Standardized Test of Computer Literacy and Computer Competency Index. Journal of Educational Computing Research, 3(2), 231- 247.

Singh, A. (2016). Role of Computer in Research. International Journal of Advanced Research in Computer Science and Software Engineering, 6(5), 128-129.

Singh, Y. K. (2006). Fundamental of research methodology and statistics. New Age International

Stanley, G. (2013). Integrating technology into secondary English language teaching. Innovations in Learning Technologies for English Language Teaching. London: British Council, 45-66.

Thakur, D. (n.d.). Dinesh Thakur. Retrieved August 14, 2020, from https://ecomputernotes.com/fundamental/introduction-to-computer/what-is-computer

Thomas, I. 1985. *Uses of the computer in teaching the composing process: 1985 annual report of the NCTE Committee on Instructional Technology,* Philadelphia: National Council of Teachers of English.

Tondeur, J. (2007). Development and validation of a model of ICT integration in primary education (Doctoral dissertation, Ghent University).

Treece, E. M. W., &Treece, J. W. (1977). Elements of research in nursing: by Eleanor walters treece and james William treece. 2nd ed. Saint-Louis, C.V: Mosby.

Unrau, Y. A., Krysik, J. L., Grinnell, R. M., & Grinnell, R. M. (2001). *Student study guide to accompany Social work research & evaluation: Quantitative and qualitative approaches*. Itasca, Ill: F.E. Peacock Publishers.

VanderStoep, S. W., & Johnston, D. D. (2009). *Research methods for everyday life: Blending qualitative and quantitative approaches*. San Francisco, CA: Jossey-Bass.

Watt, D. H. Education for citizenship in a computer-based society. In *Computer literacy: Issues and directions for 1985*, R. J. Seidel, R. E. Anderson, and B. Hunter, Eds. Academic Press, New York, 1982. pp. 53–68..” (Does It Still Matter?)

Wikipedia contributors. (2020, June 19). Information technology. In Wikipedia, The Free Encyclopedia. Retrieved 18:24, June 19, 2020, from https://en.wikipedia.org/w/index.php?title=Information_technology&oldid=963315136

Wikipedia contributors. (2020, June 3). Information and communications technology. In *Wikipedia, The Free Encyclopedia*. Retrieved 18:30, June 19, 2020, from https://en.wikipedia.org/w/index.php?title=Information_and_communications_technology&oldid=960615484

Appendix A: student questionnaire

Mohamed Kheider University of Biskra

Faculty of Letters and Foreign Languages

Department of Foreign Languages

Section of English

A Questionnaire for Master Students

Section One: Students' Personal Profile

Q1. Would you specify your gender please?

a) Female ☐ b) Male ☐

Q2. The choice to continue your studies in Master level was:

a) Your personal choice ☐

b) Your parent(s) choice ☐

c) Someone' advice ☐

If it is yours, is it because

a) You would like to raise your educational level ☐

b) You would like to get more job opportunities ☐

c) You would like to have the opportunity to conduct

An academic research and develop your research skills ☐

Others,

……

……

Q3. How do you find master studies?

a) Easy ☐

b) Difficult ☐

c) Very difficult ☐

Justify your answer please

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Section Two: Students' Familiarity with the research process

Q4. Are you familiar with conducting research?

a) Yes ☐ b) No ☐

If yes, how often do you conduct research at university?

a) Always ☐ b) Sometimes ☐ c) Rarely ☐ d) Never ☐

Q5. Have you ever been taught how to conduct research before being at university?

a) Yes ☐ b) No ☐

Whatever your answer is, did this affect your leaning process at university?

a) Yes ☐ b) No ☐

Please explain

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Q6. How do you consider learning to conduct research?

a) Very important ☐ b) Important ☐ c) Not important at all ☐

Q7. Are you satisfied with the way the course of research methodology is being taught?

a) Yes ☐ b) No ☐

Justify your answer please

……

…….

Q8. According to you, research is:

a) A necessity to complete your degree ☐
b) A fortune to get a good mark ☐
c) A tool to improve your knowledge ☐
d) An attempt to find solution(s) to certain problem(s) ☐

Section Three: Research Quality and Research Skills

Q9. As a post graduate researcher, how do you find doing a research?

a) An easy task ☐ b) A hard task ☐

If it is a hard task, is that because

a) It is time consuming ☐
b) It is effort consuming ☐
c) It requires the mastery of a considerable number of skills ☐

Q10. According to you, good researchers are:

a) Those who have good personal skills (curiosity, flexibility, organisation, commitment, etc) ☐
b) Those who have good social skills (easygoing, cooperative, good communicators, etc) ☐
c) Those who have good academic skills (reading, listening, speaking and writing skills) ☐
d) Those who have good cognitive skills (understanding, evaluation, critical thinking and analysis) ☐
e) Those who have good mastery of computing skills (Microsoft word, excel, ppt, etc) ☐
f) those who have effective off line and online research skills ☐

g) All of them ☐

h) More than one answer ☐

Q11. the following are considered to be the most important skills any postgraduate researcher should have. please mention to what extent each of them can influence the research quality and the final outcome

	No influence	Influence	Great influence
a) Personal skills			
b) Social skills			
c) Cognitive skills			
d) Academic skills			
e) Off line and online research skills			
f) Computer literacy skills			

Section Four: Students' Computer Literacy Skills

Q12. According to you, is there a relationship between research quality and computer literacy skills?

a) Yes ☐ b) No ☐

If yes, what kind of relationship may exist between them?

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Q13. How long have you been using computers?

……

……

Q14. Do you currently have a computer or a regular access to a computer?

a) Yes ☐ b) No ☐

If yes, for which purpose do you use it most?

a) Entertainment ☐

b) Educational purposes ☐

c) Research purposes ☐

Others, please specify

……

……

Q15. Have you ever been taught how to use a computer before being at university?

a) Yes ☐ b) No ☐

Q16. How often have you been taught how to use a computer?

Stream	**Frequency**		
	Very often	**Often**	**Sometimes**
a) At middle school			
b) At secondary school			
c) At university			

Q17. How do you find the content you have been taught at university?

a) Very informative ☐ b) Quite informative ☐ c) Not informative at all ☐

Justify your answer please

……

……

Q18. Are you satisfied with the way computer literacy skills are being taught at university?

a) Yes ☐ b) No ☐

Justify your answer please

……

Q19. As a postgraduate researcher, in which of the following stages of the research process do you need computer literacy skills?

a) At the beginning: When searching for a research topic and the related literature ☐

b) During the research process: When collecting and analyzing your data ☐

c) At the end of the research process: When writing and organizing your final draft ☐

Q20. If you know that computer literacy refers to the knowledge and ability to use computers and related technology efficiently, with skill levels ranging from elementary use to computer programming and advanced problems solving (Wiktionary, 2020), how would you rate your proficiency in the following computer literacy programmes and applications?

Statement	Excellent	Good	Average	Poor
a) Word processing applications				
b) Database applications				
c) Web search engines				
d) Communication applications				
e) Google forms and Spreadsheet applications				
f) Presentation applications				
g) Converting and printing documents				

Q21. Do you think that having good computer literacy skills/being a computer literate may facilitate the research process?

a) Yes ☐ b) No ☐

Justify your answer please

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Q22. Do you think that teaching academic writing and the research course using computers may improve students' research paper writing quality?

a) Yes ☐ b) No ☐

If you have any comment, addition or suggestion concerning the importance of being a computer literate in tertiary level, please feel free

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Thank you for your time, effort and cooperation.

Appendix B: Teachers' questionnaire

Mohamed Kheider University of Biskra

Faculty of Letters and Languages

Department of Foreign Languages

English Division

Teachers' questionnaire

Dear teachers,

I am a master student, and I am conducting a research about The Role of Computer Literacy Skills in Improving EFL Learners' Research Paper Quality. I would be so grateful if you could devote some of your time to answer the following questions. Your contribution will be of great importance for the success of this research study. Please tick the appropriate answer(s) and write full statement(s) whenever necessary. Be sure that your responses will be kept anonymous and will be used for research purposes only.

Q1. Would you specify your gender please?

A) Male ☐

B) Female ☐

Q2. Would you specify your academic degree and qualification please?

A) Magister ☐

B) Doctorate ☐

Q3. How long have you been teaching at university?

A) 1-5 ☐

B) 5-10 ☐

C) More than 10 years ☐

Q4. How long have you been supervising master students?

A) 1-5 ☐

B) 5-10 ☐

C) More than 10 years ☐

Q5. According to you, research is

A) A necessity to complete accomplishing a degree ☐

B) A tool for refinement and adjustment ☐

C) A tool to improve one's personal knowledge ☐

D) An attempt to find solution(s) to certain problem(s) ☐

E) All of them ☐

F) More than one answer ☐

Q6. How do you consider conducting research at university?

a) Very important ☐ b) Somehow important ☐ c) Not important at all ☐

If it is very important, is that for

a) Students ☐ b) Teachers ☐ c) Administrators ☐ d) All of them ☐

Others, specify please

……

……

Q7. Do you think that research process is

a) An easy task ☐ b) A hard task ☐

justify your answer please

……

……

Q8. Which of the following factors may in a certain way affect the research quality among EFL students?

a) The quality of instruction ☐

b) The availability of sources ☐

c) Supervisor's guidance ☐

d) The researcher's qualities and competencies ☐

e) All of them ☐

f) b+c+d ☐

Others, specify please

……

……

Q9. The following are considered to be the most important skills any researcher should have. Please mention to what extent each of them can influence the research quality and the final outcome.

option	No influence	Influence	Great influence
a) Personal skills			
b) Social skills			
c) Cognitive skills			
d) Academic skills			
e) Off line and online research skills			
f) Computer literacy skills			

Q10. Computer literacy refers to the knowledge and ability to use computers and related technology efficiently, with skill levels ranging from elementary use to computer programming and advanced problem solving (Wiktionary, 2020). Do you think that having good computer literacy skills is crucial for?

a) Researchers ☐ b) Supervisors ☐ c) Both ☐

Justify your answer please

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Q11. Do you think that having good computer literacy skills/ being a computer literate may facilitate the research process?

a) Yes ☐ b) No ☐

If yes, say how please

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Q12. As a supervisor, in which level researchers usually need computer literacy skills?

a) Level 1- when searching for research topics ☐

b) Level 2- when starting writing the first draft ☐

c) Level 3- when preparing the fieldwork ☐

d) Level 4- when organising the final draft ☐

e) Level 5- when preparing the final presentation ☐

f) All of them ☐

g) more than one answer ☐

Q13.Do you think that the mastery of computer literacy programmes and applications is crucial even for the supervision process?

a) Yes ☐ b) No ☐

Justify your answer please

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Q14.As a supervisor, how do you evaluate your proficiency in the following computer literacy programmes and applications?

	Excellent	**good**	**Average**	**Poor**
a) Microsoft office programmes (word, excel, powerpoint, etc)				
b)Database applications				
c)Web search engines				
d)Communication applications				
e)Google forms and Spreadsheet applications				
f)Online and offline auto correctors and plagiarism checkers				
g)Citation generators				

Q15.Being a computer literate affects students' research process, research product and the final outcome.

a) Agree ☐ b) Disagree ☐

Explain please

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Finally, if you have any additions, comments, remarks or even suggestions, would you state them please

……

……

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I really appreciate your time, effort, and collaboration. Thank you

المستخلص

من اجل انهاء المشوار الدراسي، طلبة الماستر متوقع منهم انجاز مذكرات من اجل التخرج. يبدو ان غالبية طلاب ماستر لغة انجليزية يواجهون بعض الصعوبات في عملية البحث وكتابة مذكراتهم. وذلك راجع لعدة اسباب، اهمها ان دروس مادة المنهجية والبحث نظرية بحت وعدم كفاءتهم في استخدام جهاز الكومبيوتر والبرامج المتعلقة به. ان الهدف من هذه الدراسة هو مناقشة دور الكومبيوتر ومعرفة مهاراته وكيفية استخدامه في تسريع عملية البحث وتحسين جودة اوراق البحث. للتأكد من صحة هذه الفرضية، اعتمد الباحث على دراسة ارتباطية مبنية على نتائج منهجية. لجمع البيانات استعمل الباحث وسيلتين: تم تصميم استبيان تم توزيعه عبر الإنترنت على واحد وستون 61 طالب ماستر، و استبيان اخر تم توزيعه عبر الانترنت على خمسة عشر 15 استاذ لغة انجليزية لجامعة محمد خيضر بسكرة. كشفت النتائج المتحصل عليها من أداتــي جمع البيانات المستعملة على اتفاق الطلبة والاساتذة حول ماهية اكتساب مهارات الكومبيوتر ودوره كجهاز في تطوير وتحسين جودة اوراق البحث. ومنه فالنتائج المتحصل عليها قد اثبتت صحة فرضيتنا المقترحة. وفي الاخير تم تقديم بعض التوصيات ومجموعة اقتراحات لكل من التلاميذ والاساتذة ومسؤولي الإدارة والتي كانت منبثقة من النتائج المتحصل عليها.