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Investigating Research Competence Among EFL Learners: Perceptions and Challenges. The Case of Master Two Linguistic Students at the Department of English at M'sila University.

A Dissertation Submitted in Partial Fulfilment of the Requirements for the Degree of Master in Linguistics

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Dedication

To my beloved parents,

To my brothers,

To my little nephew,

I dedicate this work.

Selsabil Allal

***

To my beloved parents and sisters,

To my friends,

To my students,

To Sofy,

I dedicate this work.

Baali

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First and foremost, heartfelt praises goes to **Allah** who gave us guidance and patience to accomplish this work.

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Abstract

Research is a fundamental step in the students' higher education. It is the point where the students move to the next level from a state of being dependent learners to a more independent state. Nonetheless, many students face several difficulties throughout the research process. Therefore, the current meta-research study attempts prominently to explore the levels of research competence among master one students and to investigate the challenges facing them when developing it. This research adopts a mixed research approach using both a quantitative and a qualitative method following the explanatory mixed method design. To put this methodology into practice, the researchers used the Research Competence Test (RCT) and the students' questionnaires as instruments to attain the goals of the investigation. In this investigation, thirty (30) master two students at the Department of Letters and English Language at M'sila University are purposely selected as a sample which fits this research scope since they are required to undertake a research projects at the end of the academic year. The results obtained clearly demonstrate the difficulties encountered by the students during their research work. These challenges included inadequate research-related skills, lack of accessible resources, supervisory practices and working in pairs. Henceforth, adequate support and facilitations should be provided by both supervisors and administration to those students undertaking research.

Key words: Research, Meta-research, Research Competence, Research skills.

List of Abbreviations

EFL: English as a Foreign Language

STD: Standard Deviation

$\bar{X}$: Mean

RCT: Research Competence test

r: Pearson Correlation Coefficient

RC: Research Competence

HE: Higher Education

HDRs: Higher Degrees by Research

List of Tables

List of Graphs

List of Figures

TABLE OF CONTENTS

GENERAL INTRODUCTION

CHAPTER TWO: METHODOLOGY, FINDINGS, PEDAGOGICAL IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

GENERAL INTRODUCTION

1. Background of the study

Research is a part of the curriculum of undergraduate students which needs to be fulfilled as a requirement for the completion of a degree. The higher education system introduces individuals to a world of independent research undertakings where they ought to conduct a research project and write a report for submission before the registered degree is awarded. The research report or the dissertation is expected to indicate that the student has demonstrated a mastery of the subject area that has been researched (Komba, 2015) and developed a research competence that will enable them to conduct an independent research project.

This is confirmed in many contexts, as Kleijn et al. (2012) claim that: "Students, mostly for the first time in their education, perform a piece of research independently and therefore have to learn how to actually do research, and, on the other hand, students have to show that they are capable of doing research independently." (p.926). Therefore, the research project incarnates the students' research competence where the students' knowledge and skills become apparent prior, throughout, and after the research process.

The research competence (RC) is an indication of meta-subject competence (Yarullin et al., 2015). It encompasses a set of educational competences (Yarullin et al., 2015) specifically related to students' mastery of research skills. To put it another way, it is the set of demonstrable skills and characteristics that enable the researchers to successfully carry out research. These skills involve a good set of proficiencies in statistical analysis, information-seeking, problem-solving, communication and methodology skills (Glimore & Feldon, 2010; Kardash, 2000; Powers and Enright, 1987).

During the research work, undergraduate students face a variety of difficulties (Duze 2010, Manchishi et al., 2015). Some research works on these issues have been

carried out all over the world (Lessing & Schulze 2003, Wang & Li 2008, Changiz et al. 2003). These studies reveal that the problems are primarily concerning the students' clear understanding of the research work and its different steps. Illustrated by studies in related fields, it was found that three main barriers are often encountered by students in the dissertation writing process; the research design, the data collecting and processing and the report writing (Lessing and Schulze, 2003; Helm, 1989).

Pursuing this further, students' completion rates of the conducted research projects may sometimes be low or the completion times may take longer than planned (Ekoç, 2019). According to Elgar and Klein's (2004, p. 326), there are "several factors that contribute to completion difficulties, such as supervision, scope of the thesis topic, sustainability of student stipends, and structure and support in the thesis-writing process"

Fundamentally, these factors, which can vary from one student to another, may also include irresponsible supervisors (Alam, 2013; Bakioğlu & Gürdal, 2001; Styles & Radloff, 2001), conceptual problems that students may face in the research process (Kiley, Grant, Gordon & Clouder, 2009), identifying the topic of the dissertation (Kalem & Akman, 2007), family responsibilities, personal relationships, problems relating to work and health, financial issues, as well as a reduction of interest in the topic and changes of career plans (Appel & Dahlgren, 2003; Wright, 2003). Furthermore, these factors include high load of courses in the curriculum, insufficient availability of supervisory and infrastructural support (Laidla, Aiton, Struthers, Guild, 2012). Consequently, these challenges may lead to negative or inaccurate perceptions about research and perceived lack of self-efficacy and research competence.

2. Problem Statement

Research is considered one of the major functions of higher education and a crucial process which has a great significance to students. Its advantages extend beyond having an impressive degree certificate. Via detailed research, students acquire critical thinking expertise, as well as effective analytical research, and communication skills that are internationally sought-after and extremely valuable (University of Skovde, 2016). Despite this fact, most of the students face many difficulties in their RC achievement process. These unexpected problems and difficulties that student researchers encounter when engaging in research make conducting research project a complex process (Trimmer 1992).

This situation attracts the researchers' attention to identify levels of RC development among master two linguistic students at The Department of Letters and English Language at M'sila University, to unveil the most common difficulties that they face when conducting their research projects, and to investigate both the factors and the difficulties that hinder them from developing their research competence. Identifying these difficulties may help students take measures to face and avoid these problems, to design mitigation strategies to strengthen research competence basis and complete their research projects successfully, and to develop quality researches. Another reason to conduct such a study is the little to no literature existing regarding the subject in this context that focuses on students' limitations when conducting research as the research competence comes into play when undertaking a research project.

3. Significance of the study

This study is considered significant in guiding undergraduate students in developing quality researches. Through this study, that presents a framework of skills required in the RC, they may be able to identify the skills they need to promote in order to develop good

levels of research competence. By presenting the difficulties they may face when undertaking research, this study helps them to take measures to face these problems.

This study is also deemed beneficial to teachers who teach research and serve as dissertation supervisors. The results would raise their awareness of the challenges that students encounter when they undertake research. In this manner, they would be able to give proper guidance to their supervisees in conducting hassle-free research.

Likewise, the findings of this research are envisaged to enlighten and enable the Department of Letters and English Language at M'sila University to achieve its goals in terms of strengthening the students' RC.

5. Research questions

Throughout this research, the researchers aim to answer the following questions:

1. What are master two students' levels of RC?
2. What are the difficulties encountered by master two linguistic students when conducting their research?
3. What are the challenges faced by master two linguistic students when developing their research competence?

4. Objectives of the Study

This study intends to:

1. Assess master two student's level of RC since their level is the sole indicator of their academic progress, particularly their research knowledge and skills.
2. Identify the difficulties encountered by master two students when conducting their research.

3. Identify the challenges faced by master two students when developing their research competence.

6. Methodology and Data Collection Procedures

In this explanatory study, a mixed method research approach was used, in which both quantitative and qualitative methods of data collection were adopted. The use of the explanatory mixed method design lead to the collection and analysis of both quantitative and qualitative data through the use of a semi structured questionnaire and a test designed to test the levels of RC.

As this study adopted the explanatory mixed method design, the first step was undoubtedly based on the quantitative method as the most suitable way to explore the students' levels of RC, as the quantitative measurement will allow researchers to know the level of development of students' RC. This will be followed by the qualitative method that will provide consistent and comprehensive information and valid results about the various difficulties that master two students' face when conducting their research.

The sample taking part in this study is master two linguistic students at the Department of Letters and English Language at M'sila University during the academic year 2019/2020. The sample of the study consists of thirty (30) students (of a total population of 70 students), twenty-two (22) females and eight (08) males aged between twenty-two (22) to twenty-seven (27) years old. It was selected using the non-probability sampling method from a conveniently available pool of respondents of the target population due to coronavirus pandemic.

The researchers sought two data collection instruments to ensure the validity and reliability of the data obtained: the RC Test and a questionnaire to collect data about the difficulties faced by master two linguistic students when achieving their RC.

7. Structure of the Dissertation

The present dissertation falls into two chapters. The first chapter is devoted to the theoretical study of the topic; whereas, the second chapter is kept to set the ground for the practical side of the research project

The foremost chapter, which reviews the related literature, is divided into two sections: scientific research and research competence. The first section attempts to provide an overview on scientific research, namely, its definitions, importance, objectives and the common criteria of good research. Furthermore, it provides insights on the research process and the factors influencing it, as well as, research ethics and the importance of citations. In the meantime, the second section is dedicated to the notion of research competence, its meaning, its components and some strategies to develop the students' research competence.

The other chapter is fundamentally concerned with the fieldwork of the study. It starts with discussing the research methodology and design, research instrumentations and procedures for collecting and analysing data. Furthermore, it deals with the findings and discussion of results, limitations, recommendations and suggestions for further research. Moreover, some conclusions are drawn in this final section.

8. Operational Definitions of Key Research Variables

- Research Competence: is operationally defined as the set of research skills, specifically information seeking skills, critical thinking skills, problem solving skills, communication skills, methodology skills and academic writing skills that enable a person to conduct research at a high quality level.

- Master Two level: is an advanced undergraduate academic degree, or 'second-cycle', level, building on existing undergraduate qualifications or professional experience. It is also considered as an introduction to post graduation level.

CHAPTER ONE: SCIENTIFIC RESEARCH AND RESEARCH COMPETENCE

Introduction

Both scientific research and RC constitute the main focus of this chapter. Ergo, the researchers sought to divide the first chapter into two sections. The first section aims to introduce the conceptions of scientific research, its significance, its objectives and the common criteria of a good research. Moreover, it provides insights on the research process, factors influencing the research process and research ethics. The second section, on the other hand, discusses the concept of research competence and the body of research competence with a brief overview of some strategies to retain them.

1. Scientific Research

1.1 Definitions of Scientific Research

Research is an analytical process that has evolved over hundreds of years, constantly changing in aim and form but always searching for reality. Many definitions have been set on the concept of research and while similarities exist, there does not appear to be a single and comprehensive definition. In general, research seeks to answer certain questions which so far have not been answered.

Singh (2006) defined research as Re and Search: where “Re” implies “again and again” and “Search” implies “to come up with something”. Research is conducted to investigate and address a certain issue. This can be done in a systematic and precise manner to seek new knowledge, attitudes, skills, and values, or to re-interpret existing knowledge. The task of researchers is to collect, analyse and interpret data, and assess whether their findings apply to their environments (Bocar, 2013).

According to John research is considered to be the more formal, efficient, and serious preparation of undertaking logical strategies of examination. This requires a more

systematic investigative process, which usually results in some sort of procedural record and a summary of findings or conclusions. Therefore, research is a systematic human behaviour that aims to investigate the validity of a piece of information, understand causes and mechanisms of a situation, find a successful solution to a behavioural problem, or test the success of new technologies to develop production (Oecd, 2015).

Moreover, the Department of Education and Training (Western Sydney University, 2020) defines research as creating new knowledge or making new and creative use of existing knowledge in order to generate new ideas, methodologies and understandings. This could include replication and examination of past research to the degree that it results in new and creative outcomes. Subsequently, it is the manipulation of objects, principles or signs for the reason of making generalisation, expanding, and verifying knowledge (Encyclopaedia of Social Science, as cited in Singh, 2006, P.12)

Research is the systematic investigation that entails collecting, analysing and interpreting data, in accordance with suitable methodologies in order to establish facts and solve problems. In this respect, Crawford proposed an inclusive definition of research as:

> A systematic and refined technique of thinking, employing specialised tools, instruments, and procedures in order to obtain a more adequate solution of a problem than would be possible under ordinary means. It starts with defining a problem, collecting data or facts, analysing and reaching decisions based on the actual evidence. It evolves from a genuine desire to know rather than a desire to prove something. (as cited in Singh, 2006, P.12)

In the same vein, Cook (n.d.) (as cited in Singh, 2006) has given a very comprehensive and functional definition of the term research, “Research is an honest exhaustive, intelligent searching for facts and their meanings or implications with reference

to a given problem. The product or findings of a given piece of research should be an authentic, verifiable and contribution to knowledge in the field studied." (p.12). The before mentioned definition has emphasised the following characteristics of research:

- It is an honest and exhaustive process.
- The facts are studied with understanding.
- The facts are discovered in the light of the problem. Research is problem-centred.
- The findings are valid and verifiable.
- The research work should contribute to new knowledge in that field.

To conclude, research is around inquiring and addressing questions, looking for information and understanding of the world and its systems, along with checking presumptions and beliefs.

1.2 Importance of Research

The increased number of research studies makes progression possible in various domains. According to Hudson (n.d) "All progress is born of inquiry. Doubt is often better than overconfidence, for it leads to inquiry, and inquiry leads to invention" (as cited in Kothari, 2004, 18). Research instils scientific and analytic thinking and it encourages the development of critical mind-set along with organisational habits and observational tendencies (Kothari, 2004).

Excessively, Creswell (2011) proclaimed that research is significant for three main reasons. First, research adds to the existing body of knowledge, which suggests that researchers contribute to the current information about issues. Second, Research is essential for it improves practice. Armed with research results, researchers, educators and teachers become more effective professionals. Third, Research aids the policy-making

process and helps policy makers when researching educational topics. In essence, decision-making might not be part of the research, but the later definitely facilitates the decision-making process of policymakers (Kothari, 2004).

Research, thus, lays the foundation for virtually all of the government policies (Kothari, 2004). More precisely, it has its unique essentialness in the resolution of numerous planning and operational issues as well as several problems of industry and business. It is worth note that research is equally important for social scientists in the study of social relationships and the quest for answers to a myriad of social problems. Substantially, research in social sciences is concerned with both knowledge for its own sake and knowledge for what it can contribute to practical issues (Kothari, 2004)

Apart from what has been mentioned above, Kothari (2004) claimed that the importance of research can also be understood in light of the following points:

- To students who are to write a master's dissertation or a PhD thesis, research may mean careerism or a means of reaching high positions in the social structure.
- To research methodology professionals, research may be a means of livelihood.
- To thinkers and philosophers, research may be a wellspring of insights and ideas.
- To literary persons, research may mean the development of innovative works and new genres.
- To intellectuals and analysts, research may mean the formulation of new hypotheses and the establishment of new theories.

To recapitulate, research incarnates the human curiosity that is codified according to certain scientific methods and approaches, which allows the human race to move forwards. In this century, Research has moved from the periphery to the centre of people's academic, economic, societal and political life. Thus, any genuine advancement of any

civilisation is largely owing to the scientific endeavour of questioning why and how things work the way they do.

1.3 Objectives of Research

According to Kumar (2002), the purpose of any research is discussed broadly under two headings, namely; academic and utilitarian. Academically speaking, an academic work is a definite condition for promotion. That being the case, individuals have no alternative option but to conduct research. In addition to this intent, the utilitarian facet of conducting a research lies in the question of why people conduct research. Some undertake research in the interests of inquisitiveness, while others undertake it for the sake of exploring scientific theories. There, also, could be less noble reasons, such as fame or recognition (Kumar; 2002).

Hardly anyone chooses to do research unless there are some personal motivating factors. According to Kumar (2002), the following are some of the reasons:

- To get a research degree, alongside its advantages such as better employment, promotion and salary rises.
- To get a teaching position in a college or university, or a scientist position in a research institution.
- To acquire respectability.
- To get recognition.
- To find out the unknown facts of an event.
- To find new things.

Ideally, considering Cambridge Advanced Learner's Dictionary (n.d.) definition to research as "diligent and systematic inquiry or investigation into a subject in order to

discover or revise facts, theories, and applications" (as cited in Kasi, 2009), research should be conducted on the basis of this concept for the sake of inquisitiveness, interest, addressing crucial questions, filling the gaps in existing knowledge and developing oneself instead of pursuing publications or promotions. In fact, the latter would come automatically. After all, the ultimate goal of all research is not objectivity but truth. (Deutsch, 1944). That is to say, the primary objective of research is to figure out the hidden truth that has not yet been discovered.

To sum up, and in light of the presented objectives, the main objectives of research are stated below:

- Increasing the researcher's knowledge and understanding.
- Testing and verifying relevant facts, and discovering new ones.
- Analysing an incident, process or phenomenon to determine the connection between cause and effect.
- Developing new scientific tools, principles and hypotheses for addressing and interpreting scientific and non-scientific issues (to solve the unsolved and challenging problems.)
- Familiarizing the researcher with a phenomenon or getting new insights into it.
- Defining adequately the characteristics of a particular person, situation or community.
- Testing an assumption about a causal relationship between variables.

1.4 Criteria of Good Research

Whatever might be the sorts of research works and studies, one thing that is crucial is that they all still meet on the common ground of the scientific method utilized by them. In

this regard, Kothari (2004) claimed that good scientific research needs to satisfy the following criteria:

- The aim of the research should be plainly defined, along with the use of common concepts.
- The procedures used in the research should be depicted in adequate detail, in order to allow other researchers to replicate the research for additional headway while maintaining the congruity of what has already been achieved.
- The research design should be meticulously planned to obtain results that are as objective as possible.
- The flaws and limitations of the research design should be frankly reported by the researcher to estimate their impact on the outcomes of the study.
- The analysis and interpretation of data should be adequate enough to reveal its significance.
- The methods used during the analysis of data should be appropriate.
- The reliability and validity of the concerned data should be checked carefully.
- Conclusions should be confined and restricted to only those data, which are justified and adequately provided by the research.

According to Kothari (2004), qualities of good research can be stated as under; "Systematic", this indicates that research is structured with some specific steps to be followed in particular sequence incongruence with the well-defined set of rules; "Logical", this states that research is directed by the rules of logical reasoning, and the logical process of induction and deduction is essential when undertaking research. In fact, logical reasoning makes research increasingly significant in the context of decision-making; "Empirical", this suggests that research is fundamentally connected to at least one aspect of a real situation. Furthermore, it scrutinizes the concrete data, which lays the groundwork

for the external validity of research outcomes; and “Replicable”, this implies that research results can be verified by replicating the study; ergo, it provides a sound basis for decisions.

1.5 The Research Process

The act of doing research is not a single occurrence; but rather, a multi-stage process. To support this, Anderson and Arsenault (2004) defined research as “a dynamic activity that travels a long and winding trail from start to finish” (p. 32). Basically, the research cycle has a set of fundamental elements that interplay and work in tandem with each other. According to many references, the core steps of the research process are: formulation of the research problem, review of literature, development of working hypotheses, preparation of the research design, collection of data, analysis of data, and dissemination of the research findings.

1.5.1 Formulation of the Research Problem

Kumar (2005) identified the formulation of research problem as being akin to identifying a destination before embarking on a journey. By and large, the identification of a research problem is the first and most important step in the research process, as research problems are at the heart of the scientific enquiry. A research problem is a gap in the knowledge of the field and that may manifest itself as a difficulty, a general educational issue, an area of concern, a controversy, a flawed understanding, an area to be improved, a troubling question that exists in scholarly literature, in theory, or in practice which alludes to the need for a thorough understanding and deliberate inquiry (Research Guides: Organizing Academic Research Papers, 2020).

The significance of the research problem cannot be sufficiently emphasised in the research enterprise, as the success of any research endeavour depends on the proper

selection and formulation of the appropriate research problem. Correspondingly, Kumar (2011) argued that faulty identification of research problem may result in a loss of a researcher's interestingness in a certain study, whereas the erroneous formulation of research problem may lead to unanticipated challenges in the later phases of the research process. In this respect, Kumar (2011) noted that it is critically necessary to evaluate the research problem in the light of the time available, the financial resources, and the researcher and the research supervisor's knowledge and expertise in the field of study.

1.5.2 The Review of Literature

The literature review is a comprehensive study and exegesis of literature that addresses a specific research problem (Aveyard, 2014). In this case, the investigator must systematically search, critique and synthesise the literature to identify a gap in the existing body of knowledge and formulate areas for further research, while demonstrating their understanding of both the research and the research methods used before to investigate a particular area of research (Aveyard, 2010).

The literature review surveys scholarly articles, books, research papers, journals, and any other sources pertinent to the problem being investigated. However, the literature review is not just a descriptive list of the materials available or a set of summaries. The review, then, should describe, enumerate, summarise, synthesise, and objectively evaluate these works in order to identify gaps in the current knowledge and formulate areas for further research (Fink, 2005). It acknowledges the work of previous researchers, and in so doing, assures the readers that the work has been well-conceived and demonstrates to them that it fits into and adds to an existing body of agreed knowledge (Literature Review, 2020).

1.5.3 Development of Working Hypotheses

After an extensive literature survey, the researcher should assert the working hypothesis or hypotheses in intelligible, precise and clearly defined terms. Working hypothesis is defined as "a tentative assumption made in order to draw out and test its logical or empirical consequences" (Kothari, 2004, p. 9). As such the way in which research hypotheses are constructed and developed is especially critical as they provide the focal point for research. They also influence the way tests are to be conducted in data processing and, indirectly, the quality of data which is required for the data analysis (Kothari, 2004).

Kothari (2004) posited that hypothesis formulation has its role in guiding the researcher by sharpening their thinking and focusing their attention on the more important facets of the problem through delimiting the area of research. Consequently, their thought process will be governed toward the solution of the research problem. According to Kothari (2004), it also specifies the type of data needed and the type of methods of data processing to be used.

Although the specification of hypotheses is an integral part of the research process, it is not always necessary. The specification of working hypotheses is an essential element of problem-oriented researches where hypotheses are generally concerned with the causes of a certain phenomenon or a relationship between two or more variables under investigation. However, researchers may occasionally encounter research problems where the formulation of a working hypothesis is not necessary, especially in the case of exploratory research (Trochim, 2020).

1.5.5 Preparation of the Research Design

According to Selltiz, Cook, Deutsch & Jahoda (1959) “A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure” (p.50). In other words, the research design refers to the general strategy chosen by a researcher to integrate the various elements of the study logically and coherently; thereby, ensuring that the evidence obtained enables the researcher to effectively address the research problem as unambiguously as possible. It is, therefore, tantamount to the conceptual structure within which research is conducted (Kothari, 2004). Depending chiefly upon the research purpose, the research design constitutes the plan for the collection, measurement, and analysis of data with minimal expenditure of effort, time and money.

Anderson (2002) claimed that the length and complexity of the research design can vary considerably; yet, the preparation of the research design involves at least the consideration of the “ the focus of the inquiry; the objectives of the research study; the type of data required; the cost factor relating to the research study; the place where the required data will be found; the location of the research study; the timescale of the research study; the sample design of the study; the methods and techniques of data collection; the methods of data analysis; and the style of the report.

1.5.6 Collection of Data

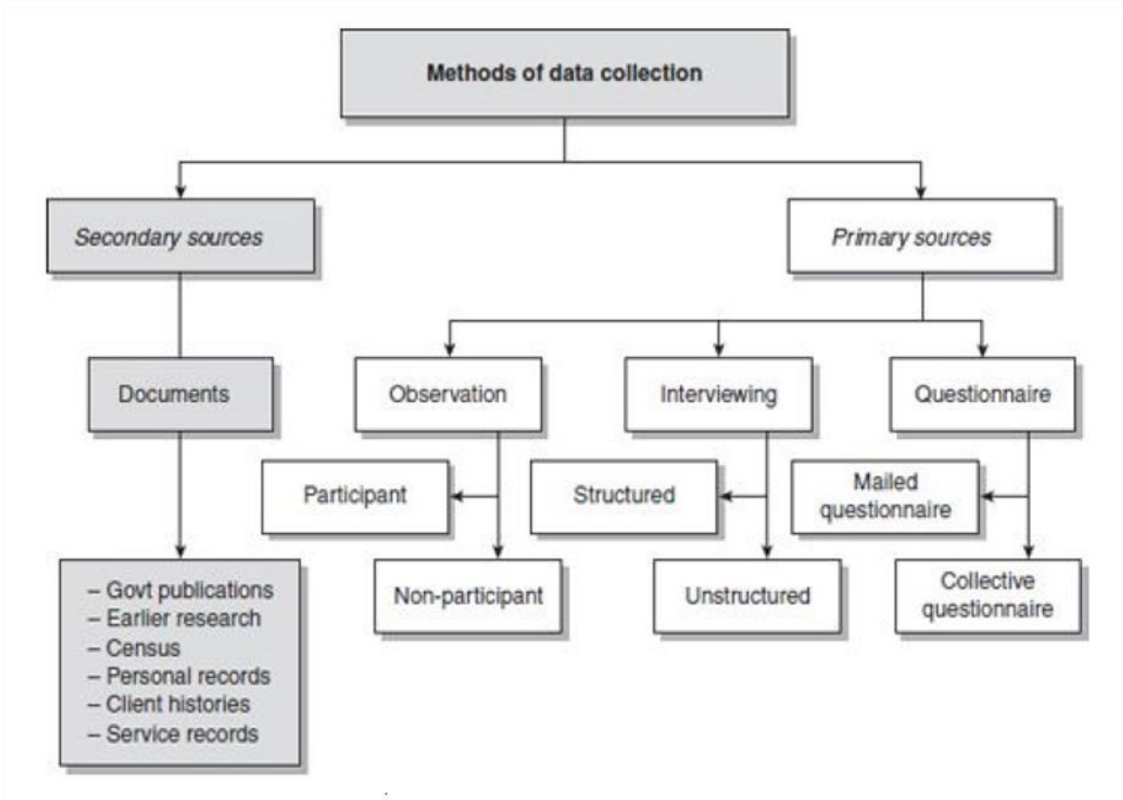
Data collection is a systematic and meticulous procedure of utmost importance as it aims to capture quality evidence and measure information on targeted variables **(**Singh, 2006) using standard validated methods; thereby, investigators will be able to answer the research questions, test the hypotheses, and evaluate the end results.

Essentially, (Mesly, 2015) claimed that data collection falls under two broad categories; Primary data collection and secondary data collection. Whilst the former refers to the gathering of raw data by a researcher through first-hand sources, the later indicates the collection of second-hand data, or already existing data, by an individual other than the original user (Mesly, 2015). The choice between the two core forms in which data can be collected depends substantially on the scope, aims, nature and area of research (Data Collection Methods & Tools for Research, 2020).

Data can be collected by any one or more of the following methods: Observations, Questionnaires, Interviews, or document analysis (Kumar, 2011). The flowing figure demonstrates some data collecting tools:

Figure 01:

Data Collecting Tools



According to figure 01, observation is one of the primary data gathering instruments that researchers often use. It requires gathering data without posing questions. Kumar (2011) defined obsevation as "a purposeful, systematic and selective way of watching and listening to an interaction or phenomenon as it takes place" (p. 134). However, this method of data collection is more subjective, as the observer is required to add their personal judgment (Ainsworth, 2020). The observation is the best method to use when ,according to Kumar(2011), the researcher is intrested in the behaviour of the individuals

not in their perceptions, or the informants of the study are engaged in the interaction or part of the studied phenomenen and cannot provied objective information about it. In fact, There are two types of observation: Participant observation and non-participant observation. (Riley, 2009). The former indicates that the researcher is a part of the group being observed; whilst, the later is opted for when the researcher remains a passive observer and does not participate in the acitvites of the group being observed (Riley, 2009).

Interviews are another research tools of collecting primary data from interacting with people. Interviews are used to gather data on a wide variety of topics from a specific number of subjects(Data Collection Methods, 2020). According to Monette et al. (1986, 156), “an interview involves an interviewer reading questions to respondents and recording their answers”.What is worth mentioning is that the researcher can use structured or unstrucred interviews Kumar(2011). On the one hand, structured interviews are used when the researcher uses, in the form of an interview schedule, a series of prepared closed-ended questions, which they read out excatly as worded. On the other hand, unstructured interviews do not use any predetermined questions, instead , the interviewer asks open-ended questions based on a given study subject, and may attempt to make the interview unfolds like a normal conversation (McLeod, 2014).

Furthermore, Questionnaires are another data collecting tools, which may be considered to be the most common research instrument in the aforementioned list. Singh (2006) defined the questionnaire as” a form which is prepared and distributed for the purpose of securing responses. Generally these questions are factual and designed for securing information about certain conditions or practices, of which recipient is presumeaudience is d to have knowledge”. Simply put, the questionnaire is a written list of questions that are administered to the selected participants to answer. Kumar (2011)

argued that the questionnaire can be administered in different ways. The mailed questionnaire is when the questionnaire is sent to targeted participants by mail to collecet information. The Collective administration is ,also, another way to admister the questioannire where potential participants are assembled in one place to answer the questionnaires' questions.

When the needed data has already been gathered by someone else and the researcher needs to retrieve it for the purpose of their research work , then, document analysis method is used. Document analysis is a secondary data collecting method that was defined by Bowen (2009) as a form of qualitative research in which documents are interpreted by the researcher in order to give voice and meaning around a certain topic. these secondary sources can be found in government publications, previous research, cencus, personal records, client histoires or service records.

1.5.7 Analysis of Data

Data analysis is the process of systematically applying logical and statistical techniques in order to describe, scrutinise, transform, and model data in an appropriate output form for the purpose of discovering relevant information, informing conclusion and supporting decision-making (Data Analysis - Process – Tutorials point, 2020)

In short, data Analytics is the study of dissecting crude information so as to make decisions about that data. Furthermore, data analytics has several approaches and facets, encompassing various techniques under a variety of names. Kothari (2004) argued that data analysis entails a number of closely related operations such as categorisation, application of these groups and classes to raw data via coding or tabulation and, then deducing statistical inference.

In describing the data coding process, Kothari (2004) proclaimed that Coding procedure is usually conducted at this level by converting data categories into symbols that can be counted and tabulated. Additionally, Editing is the process that enhances coding data efficiency. At this juncture, data is ready to be tabulated. Tabulation, then, is one of the technical operations by which the categorised data is displayed in tables. In this respect, Kothari (2004) added;

> "A great deal of data, especially in large inquiries, is tabulated by computers. Computers not only save time but also make it possible to study large number of variables affecting a problem simultaneously. Analysis work after tabulation is generally based on the computation of various percentages, coefficients, etc., by applying various well defined statistical formulae" (p.14)

The data analysis work involves comparison of the findings of the various treatments upon the different categories and the making of a decision as to the achievement of the aims of research (What is Data Analysis, 2020). As the usage of statistical procedures differs as per the necessity of the research studies, Kumar (2011) argued that every researcher needs to have proper knowledge in all the statistical methods.

1.5.6 Dissemination of the Research Findings

Anderson (2002, p. 30) reported "There are a multitude of ways to disseminate research findings including detailed research reports, executive research summaries, theses, dissertations, monographs, conference presentations, oral briefings to stakeholders, and journal articles, to name a few". In the case of undergraduate studies, writing of dissertation is the final step in the research process which requires a range of skills somewhat different from those called for in respect of the earlier phases of the research study.

In this sense, dissertation is the product of painstaking, slow and accurate inductive work (MBAR Research Methodology, 2018). Also, it is the presentation of the research work in a written form. In other words, it is a reliable source for recounting the details about the conducted study and is most commonly regarded to be a true testimony of all the work undertaken to answer the research problem Research Reports, 2020). Thus, this task should be accomplished with the utmost care by the researcher who, at times, needs to seek the assistance and guidance of experts, especially in the beginnings of their research journey (MBAR Research Methodology, 2018). In view of this, the dissertation is designed to contribute to the body of academic research and should be available to the scholar and research community after final approval and publication (Writing a Dissertation, 2019).

In fact, in the stage of writing the dissertation, researchers should adhere not only to the guidelines of the chosen formatting and citation style but also to the conventions of academic writing. Ergo, academic writing is mostly considered to be a medium of scholarly communication through which the conducted research work is presented.

1.6 Factors Influencing the Research Processes

The research cycle is highly affected by a set of elements that become operative when a researcher engages in a certain scientific endeavour. These influences include peers and mentors, opportunity, institutional requirements, literature, experience of the researcher, value and environment.

To begin with, the research realm, like any other field, is intensely competitive. Whether students are competing for funds from funding bodies, to be a part of a particular research team, to be strong candidates of scholarships or fellowships, or to get the approval of a prospective supervisor in the students' area of interest, students must seek out, be able to recognise and take action on possible research opportunities (Anderson, 2002).

Additionally, peers and mentors are essential to surviving and succeeding in the research world. Kretschmer et al. (2018) explicate that peer impact could appear through: the peer pressure about achievement and productivity; the exchange of knowledge and information; and the support and the resources galvanizing achievement. Howbeit, the most significant role of a peer is providing an ample emotional support. On top of that, the role of mentors, also known as research supervisors, revolves around guiding and supporting undergraduate, graduate and postgraduate students in conducting their research projects (Remenyi & Money, 2012). To simplify matters further, the role of the supervisor is not only to provide academic and scientific insights but also to provide support, guidance and motivation, throughout the research process.

Furthermore, the research process is also influenced by the institutional context. All institutions, foundations that provide research grants are also included, have a set of specific policies and regulations that researchers should respect. “At a university these may take the form of ethical approvals, faculty guidelines or thesis requirements” (Anderson & Arsenault, 2004, p. 32)

The research literature is another core factor that influences the research process. According to Borg and Gall (1986), in research, literature lays the foundation for all future works. If the researcher fails to build a sound foundation of knowledge provided by the review of literature, the research study is likely to be shallow and will often replicate work that has already been conducted by someone else. Anderson (2002) claimed that, throughout the early stages of the research process, searching the previous literature helps in refining the topic, developing research questions and grounding the study in one or more academic fields. Hence, every researcher requires an in-depth review of previous problem-related research.

Moreover, the current skill set of a researcher could be a core determinant of the conducted research study and any limitation on the researcher's experience may limit the research process. Anderson and Arsenault (2004) proclaimed:

An experienced researcher may bring to the research environment expertise with a particular type of research method (i.e. case study, experimental or evaluation) and be gifted with certain tools of the trade (i.e. an ability to write, interview or develop effective questionnaires). (p 32)

More importantly, however, the absence of research experience may necessitate novices to take more time to complete a research project, but as Anderson (2002) believed that their research work, guided by an effective supervisor, can contribute to the first and foremost reason for conducting research, building knowledge.

Besides, values represent what individuals, societies and cultures hold as intrinsic beliefs. In fact, the researcher brings to the research setting a myriad of personal values which affect the types of decisions made and the directions taken by the research (Anderson, 2002). “Values are held close to our hearts and impact the decisions we make, the way we approach situations, the way we look at the world, and the way we process and reconstruct knowledge” (Anderson, 2002, p. 33). In essence, it is unlikely to conduct completely value-free research. Values, like politics, are ever-present and have an effect on the research process. Rather than repudiate their existence, researchers should assay to understand and make their own beliefs explicit, while at the same time, attempt to understand the core beliefs held by others being researched or supporting the research study (Anderson, 2002).

In addition, the environment represents the political, economic, social and technical factors impacting the research process (Anderson, 2002). Depending on the nature of the

study, these forces may have differing degrees of influence on the inquiry and, like values, environmental influences shape the research context. Anderson and Arsenault (2004) maintained that the impact of stakeholders, individuals with a vested interest in a certain organisation, is a prime example of an environmental force that can impact a study. Another is time. Research topics are also another factor that come into vogue and provide substantial opportunities for individuals willing to take a research journey.

1.7 Research Ethics

Ethics are the moral standards which regulate the actions of an individual. They can be considered as doing what is morally and technically right in research. In fact, they are norms of behaviour which differentiate between right and wrong and acceptable and unacceptable behaviour (Resnick, 2015). Therefore, ethics are central to the research process. Researchers must take care of different ethical problems at multiple stages of this process, because research is of some interest only if it is performed in an honest manner. That is to say, the findings of a research cannot be trusted if the researchers have not acted with honesty.

In this context, Resnick (1998) defined research ethics as the common denominator for researchers' relations with respondents and colleagues. Therefore, working with the people engaged in the study often poses ethical problems about how the researcher treats them precisely prior, throughout and after the analysis.

A critical aspect of research ethics is around how people, who are involved in research, should be viewed as subjects or as informants. It would seem self-evident that in accordance with their involvement in research, these individuals should be shielded to the fullest degree possible from harms or wrongs; they should be treated with dignity and

respect. Even if the researcher does not include individual subjects in his study, the problem of honesty may still exist in the way the researcher captures, evaluates and interprets results. That is to say, the ethical conduct of the research is the responsibility of the researchers themselves. They must have sufficient information about the nature of ethical problems in research (Showkat & Parveen, 2017). Researchers' first and foremost duty is to take care of the participants' safety, privacy, rights and welfare at various stages of the research process. But also they have to take care of various other problems; they don't have responsibilities only with the participants but also with the fellow writers along with the public and the academic world. Accurate explanations of what they did, how they did it, the knowledge they collected, the methods they used, the analyses they performed and the outcomes of the experiments are required.

All the ethical issues encountered at various stages of the research process may be taken care of at four major levels; researchers' obligations, participants' rights, data and interpretation, and intellectual ownership and plagiarism

1.7.1 Researchers' Obligations

During the research process, researchers must take various obligations into consideration. They have to make sure that their research is undertaken with integrity, objectivity and dignity. That is to say, researchers must respect people and their cultures, traditions, beliefs and economic status. Moreover, they have to obtain consent from the participants for their participation and to look after the participants' confidentiality and personal information or identification as per their choice. Also, they should avoid studies that may endanger the participants as well as the researchers themselves. To support this, Parveen and Showkat (2017) emphasise that the researcher has a duty and responsibility toward society, participants, colleagues and funders of the project.

1.7.2 Participant's Rights

Participants have the full right to agree to join, withdraw or refuse to engage in research projects. They have the right to request anonymity and to prohibit disclosure or exchange of personal information or identifiable details. Simply stated, they have the right to seek safety and privacy. That is to say, whenever required, data should be maintained safe and the participants should not be subjected to inappropriate or unreasonable rates of danger.

1.7.3 Data and Interpretation

Although it is challenging, it is not impossible to be completely unbiased and objective. Because it is a sever lack of honesty to intentionally misrepresent the data or results, scientific objectivity should be maintained to the peak. If the researcher can see any reason for a possibility of bias in any aspect of his research, it should be acknowledged and explained. If the analysis requires moral judgements and assessments, the foundations for these should be laid. Rejecting or passively denying information that is counter to the researcher's convictions, or being overly restrictive with the data used in reporting the findings of the study is a violation of the integrity of research.

1.7.4 Intellectual Ownership and Plagiarism

Unless otherwise mentioned, what the researcher composes will be considered his own work. In this respect, the greatest crime against honesty is called plagiarism. There is no absolute definition for plagiarism. According to Random House Compact Unabridged Dictionary (1995) Plagiarism is the use or close imitation of the language and thoughts of another author and the representation of them as one's own original work. In other words, copying the work of someone else directly into ones' research study, essay, etc. and allowing it to be considered as one's own.

In academic contexts, plagiarism has now become an issue that threatens the integrity of research. This practice is considered to be an international phenomenon whether it is done consciously or unconsciously. Researchers ought to be specialists in peer-reviewing articles to identify plagiarism and have to include a wide-ranging analysis. They may classify plagiarism by type of materials, writers and so on. The major types commonly discussed include Self-Plagiarism, Manipulated Plagiarism, Ideal Plagiarism, Authors-Fight Plagiarism, Translated Plagiarism, Whole Work Plagiarism, Unintentional Plagiarism and Juice Plagiarism which are very hard to detect except for up-to-date reviewers.

In recapitulation, the ethical conduct should be reflected in the behaviour of the researchers who conduct the investigation, the participants who provide the data, and the entire research team who interprets the results and suggests alternative solutions.

2. Research competence

Research is considered one of the major functions of higher education institutions. In universities, research is one of the key tools in academic achievement and excellence. Therefore, the need for developing RC and promoting the requisite research skills among university students is greater today than it has ever been before.

2.1 Definition of Research Competence

Research is one of the accreditation criteria when determining the development of qualified professionals. Likewise, the research element is one of the areas being assessed by the accreditors in the evaluation of programmes and institutions relative to accreditation (Jaosh, 2004). This concertizes the university's ability to produce research that would generate knowledge for the institutions' productivity (Palispis, 2008). An urgent task of

higher career school is teaching students the ways of searching and processing scientific information through independent research practices.

The definition of "competence" is still controversial, but operates in this research. Competence – originated from the Latin competentia – which indicates sufficient knowledge and skills to enable someone to act in a wide range of situations. Therefore, a competent person is the one which has the appropriate knowledge, skills and capacities to assess and respond appropriately to different situations. It means a person's ability to do a particular activity at a high quality level (Executive Brief, 2008)

Research competence, then, is a complex, stable, and multi-formation in the psyche of the individual, which is acquired during a specially crafted learning process, that allows him to know objective reality through scientific instruments, and have more or less reliable information about it (Prokhorchuk, 2014). In this respect, research competence is an example of meta-subject competence (Yarullin et al., 2015). It includes the entire complex of educational competences directly linked to the students' knowledge mastering processes of thought, search, logic and creativity.

Some authors such as Edwards and Osipova (2011) Pay attention to the transformation nature of research competence and reflect it as an integrated personal quality. This is expressed as the readiness and ability to independently master and receive new knowledge systems, as a result of transferring a semantic context of an activity.

Moreover, research competence is an essential component of researchers' professionalism and should therefore always be seen in connection to other qualities that make them what they are and what they do: their professional research identity. It is a quality of personality, totality of knowledge, valued orientations, necessities and experience of research activity (Belianina, 2018).

2.2 Components of Research Competence

Andriessen (2014) introduced the concept of research competence as a specific quality needed for highly-educated professionals. They need to think and work from an inquiring stance. Therefore, research competence is the encompassing term for various elements which serve as features of professionals who have an inquiring stance and the competence to think and function from within this attitude, are able to use the knowledge from available research to their own professional practice, and are able to design and conduct small-scale, practice-based research independently (Andriessen 2014). Beside these three components of research competence, an additional overarching element is specifically applicable to educators. This particular feature is manifested in educators support others in the learning process, including developing research competence.

The first element of research competence is possessing an inquiring stance, which is defined as having an open attitude, being curious, being critical, and wanting to understand, support, justify, build, concede and innovate (Bruggink & Harinck (2012); Losse & Nahuis (2015); Van der Rijst (2009). On the other hand, an inquiring stance can be seen as a prerequisite for conducting research (Van der Rijst 2009). One may argue that research will remain bound to a trick without an inquiring stance. That is to say, a technical method that is not fuelled by any curiosity about the solutions to the issues and questions being researched.

For simple issues, an inquiring stance is apparent in asking informative questions, engaging in discussion with colleagues and learners, and possibly working together to identify possible areas for improvement. The inquiring stance in this case is also the mind-set of reflective practitioners, who cause delays in their actions (Wathén, 2016).

With regard to more complex issues, behaviour centred on an inquiring attitude is not only reflective but also more inquisitive. In recapitulation, an inquiring stance is evident in the met hodical application of research competences for issues that are both persistent and complicated. In this regard, we refer to practitioner research, which is done by educators, and practice based research, which is done by researchers, and everything in between (Wathén, 2016).

The second component of research competence is applying research on one's own professional practices, which helps in keeping the professional field updated. This requires modernisation and creativity based on current existing research, and not on instinct and experience. Much research information has been integrated into manuals, and others remain for current educators to read in their science journals and to use it in their actions (Wathén, 2016).

As argued by the Netherlands Educational Council (Onderwijsraad 2006, p.9) research can 'yield a reliable judgement concerning the suitability of methods and approaches; thus, preventing the protracted ideological discussions and "trial and error" in practice'. In other words, it is expected to produce a systematic process of exploratory research, development work, and practical experience, based on the knowledge in a given field, and would eventually provide an overview of what functions, and how it functions. Only then it can justify hard experiments with control groups (Onderwijsraad 2006).

Possibilities of applying research can be relevant to any area of professional issue. Nonetheless, it is not commonplace to build on available research as a basis for individual actions. Negative connotations are frequently attached to evidence based methods. This concept is related to hard evidence and a linear approach to research that would lead to constraining researchers without taking their practical wisdom into consideration. This

negative connotation tends to assign priority to quick thinking over enthusiasm for creativity. One impact may be researchers' lack of enthusiasm to start dealing with research findings. But encouraging them to cultivate an inquiring stance could theoretically be helpful, thereby making them knowledgeable about the research results. At the same time, they will become more critical and less willing to embrace the findings of studies as irrefutable facts (Enthoven & Oostdam 2014; Verbeek & Wassink 2014).

Conducting research is the third element of research competence which refers to targeted, reproducible, and systematic data collection (Cochran-Smit & Lytle 2009; Ponte 2012; Zwart, Smit & Admiraal 2014). It involves a research cycle in which the methodological guidelines for explaining a matter; reviewing literature; designing a research approach; gathering, processing and analysing data; discussing results; drawing conclusions; making recommendations and reporting on all of these actions are implemented. Conducting research can contribute to insights into their own actions, the process of building on insights from others, the development of knowledge of their own changing profession, the professional development of educators, the quality and development of their work practice (Admiraal, Smit & Zwart 2013; Bruggink & Harinck 2012; Ros et al. 2013; Van den Bergh & Ros 2015; Van Veen, Zwart, Meirink & Verloop 2010; Vanassche & Kelchterman). Conducting research also helps in strengthening an inquiring attitude and to acquire skills and knowledge. Furthermore, it is an effective learning strategy which leads to self-directed learning.

Ultimately, the element of supporting others in improving their research competence extends to teacher-educators and educators elsewhere in the education domain. The most efficient manner of reinforcing the research competence of students is not yet clear (Bruggink & Harinck 2012). Teacher training programmes around the world have

been actively engaged in gaining insight into this problem and building consideration to research competence into the curriculum (Wathén, 2016). In addition to this curriculum development, promoting the development of research competence implies demands on teacher trainers (Wathén, 2016). They must possess research competence and serve as inspiring examples (Geerdink 2010, 73) and should be able to transfer research competence, which would be more easily accomplished if the learning environment has a research culture (Van der Linden, 2012).

2.4 Research Skills

Today, everything is connected to research in one way or another and every academic excellence is connected to the mastery of research skills. Research skills indicate the collection of several skills in different domains that enable the conduct of independent quality research.

2.4.1 Information-seeking skills

Information-seeking attributes are now a vital part of a student's repertoire of researching skills. Information seeking, also known as information literacy, can be described as the activity or the process of attempting to obtain information in both technological and human contexts (Michael et al., 2014).

Becoming information literate is an active process that demands the seeking out of knowledge from a plethora of sources. Put differently, information-seeking skill is the ability to determine what information is needed, recognize how information is organised, locate the best sources of information for a given need, evaluate the sources critically, and use that information (Chandler, 1969). It could also be considered as the knowledge of

commonly used research techniques. According to Iannuzzi (2000, p. 3), an information literate individual is able to:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into one's knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally.

2.4.2 Methodology skills

Basically, research methodology indicates the framework within which research is carried out. Thence, "It is necessary for the researcher to know not only the research methods and techniques but also the methodology" (Kothari, 2004, p. 4). Simply put, research methodology refers to the practical "how" of any given piece of research. It is the manner to systematically find solutions to the research problem (Kothari, 2004).

Research methodology skills, thereupon, enable the researcher to use the necessary procedures, methods, techniques, and instruments to select, process, and analyse information relevant to the solution of the problem being investigated (Research Support, 2020). More precisely, these skills help the researcher to design a study to ensure reliable and valid outcomes that address the research objectives.

2.4.3 Communication skills

Effective communication skills are an essential requirement of high-quality research practice. Correspondingly, the researcher must be able to communicate with their peers,

with their research team, and with the public at large (Skills and competencies needed in the research field, 2010). A research communication skill could be defined as the ability to effectively present and defend the research. It is communicating to others the purpose, objectives, significance, findings and conclusions of the research, and, as Kruizenga (2018) claimed, tailoring the communication to the needs and knowledge level of a particular audience.

In essence, research communication is not only about explaining findings in an understandable and concise manner, but about engaging people in your research" (Goubert, 2017). The effect of research communication goes further than just presenting the outcomes of research, it is about building bridges and creating mutual engagement and reciprocal interaction between the research and the public. In fact, efficient research communication raises more public engagement and awareness (Goubert, 2017). With the right information, presented understandably, conscious decisions could be made from governmental to an individual level.

2.4.4 Problem-solving skills

Although problem-solving skill is identified as a soft skill, an aptitude for effective problem- solving is nonetheless one of the most valued attributes in research. Cambridge Dictionary defines Problem-solving as the act or the process of working through the details of a problem to reach a solution. More precisely, a problem-solving skill is the ability to define the problem carefully before trying to solve it, analyse the problem from different perspectives, create and evaluate potential solutions thoroughly according to a predefined standard, and develop an implementation plan once choosing the most appropriate solution. Furthermore, problem solving is a skillset consisting of several interrelated

abilities, including innovative and creative thinking, adaptability, flexibility, team working, decision making and risk management (PROBLEM SOLVING, 2020).

2.4.5 Critical Thinking Skills

The research process is not simply compiling data or evidence then piecing together the load of information collected into a paper. Instead, the research process is about developing answers to the research questions through serious critical thinking and thoughtful reflection (Critical Thinking and Academic Research, 2019). Critical thinking, then, is regarded as a core skill and as a precursor to research.

Essentially, critical thinking skills refer to the self-disciplined and self-monitored thinking process which entails the application of some higher-order thinking skills, including analysing, synthesising, and evaluating the information collected to draw reasonable conclusions (Facione, 1998). In essence, researchers with critical thinking skills can understand the logical connections between ideas (Loveless, 2020), interpret evidence and determine its significance, identify the relevant arguments within the problem context, and analyse and evaluate different points of view.

2.4.6 Academic Writing Skills

Academic writing is a fundamental skill that provides the lenses through which the research study, as well as its methodological approaches, findings, arguments, significance, conclusions and recommendations can be viewed. Academic writing is nonfiction type of writing that is produced as part of academic work. It also refers to the particular style of expression that researchers and scholars use to set the intellectual and the scholarly boundaries of their disciplines and their specific areas of expertise (Research Guides, 2020).

Characteristics of academic writing may include a formal style, impersonal tone, clear and limited focus on the research problem under investigation, close adherence to the appropriate format and structure, evidence-based arguments, and precise word choice (Hartley, 2008).

2.4 Strategies for Developing Research Competence

Many university graduates are incapable of interpreting unfamiliar phenomena. Such students do not feel the need to learn theoretical facts, they are unable to conduct research for new scientific information, and they do not have the critical skills to prove claims. As a result, their perspicacity in the profession is low. They are not innovation- or creative-oriented (Yarullin, 2015). Therefore, one way to resolve this is to realize that the development of research competence is a crucial prerequisite for students undertaking higher research degrees. That is to say, in order to bring the desired knowledge, skills and abilities from researchers to perform well at conducting their research, it requires proper training programs that may likewise have an impact on researchers' motivation and commitment

On the other hand, mobility is now much higher among researchers than before (Apec, 2010). Many programmes actively promote this mobility as a source of new ideas, knowledge, creativity and way to sustain the momentum of innovation (Apec, 2010). Thereby, fairly extensive training programmes have been set up to encourage researchers' mobility and career management. These courses include cross-disciplinary competencies in addition to the researchers' specific scientific competences (Apec, 2010). That is to say, the idea is to educate students with more cross disciplinary competences.

Research training programmes' scheme is administered by individual universities to support candidates undertaking Higher Degrees by Research (HDRs), such as Research

Doctorate and Research Masters degrees (Research Training Program, 2020). They offer young researchers more opportunities without waiting for a certain degree of seniority to be reached. The aim of such training programmes is to:

- Help build generic personal, professional and research competences which will be useful during master and PhD's research projects and beyond.
- Provide graduate students with the needed skills to build careers in academia or other sectors.
- Provide training on the latest computing methods used
- Encourage promoting creativity, independence and judgement cutting edge technology demands.
- Expose opportunities for interdisciplinary research to young researchers.
- Provide complementary skills training.
- Help create young scientists who are enthusiastic to communicate their science to the wider public with excitement.
- Help boost the role of science within society.
- Improve the ability to carry out a research project and introduce one 's work to a broad audience.
- Increase ethical awareness.

(Objectives of the Training Programme, 2020)

According to IF Yarullin (2015), to solve the problem of students' competence development, it is necessary to:

- Define the framework of students' research competence and their features within high educational setting;

- Create research competence development model in which the goals, structure, logic, forms, methods, and ways of implementation form the basis of this process;
- Choose innovative technological strategies to engage students in research activities;
- Create strategies focused on educational researches modelling and organization of independent research activities;
- Create a compendium of research projects that incorporate content and technological aspects of research activities on particular disciplines' materials;
- Formulate criteria for determining the level of research competence of the students;
- Improve the technologies to realize the model and experimentally test its efficacy with respect to the motivational increase in educational and research activities of the students and their engagement in the research process.

Conclusion

In this chapter, the researchers attempted to provide an overall description of both scientific research and the notion of research competence. Despite the importance of research competence in making not only efficient researchers but also lifelong learners, it is still neglected in most higher education institutions curricula.

Furthermore, the researchers attempted to provide an extensive problem- related literature to lay the foundation for the subsequent methodology chapter. This chapter,

therefore, lays the background for the field work which may be considered the most salient portion of the entire study to which the results will be ascribed.

CHAPTER TWO:

METHODOLOGY, FINDINGS, PEDAGOGICAL IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

Introduction

This study is conducted to investigate the levels of master two students' RC and to highlight the difficulties they face to achieve their RC. To that end, the researchers used several procedures to obtain reliable and valid information. Accordingly, this chapter represents the practical part of the study, and illustrates the steps of the methodology which have been followed. It shows how the data was collected and analysed and a detailed description of the means of data collection (qualitative and quantitative). It introduces the sample population followed by the used data analysis methods. Finally, this chapter denotes the discussion of the main results, and gives a number of pedagogical implications, recommendations and suggestions for future research.

1. Research Methodology

1.1 Research Approach and Method

This research belongs to the meta-research realm, whereby researchers undertake studies of research through the use of research methods. Meta-research, also known as "research on research", uses scientific methodology to study how research is done and where improvements can be made. Meta-research concerns itself with the detection of methodological defects and other inefficiencies and errors and poor practices in research. This type of research seeks to increase the quality of research in all fields and has been described as "a bird's eye view of science." (Ioannidis, 2020).

The current research work adopts the mixed method approach through which data are collected and analysed quantitatively and then qualitatively. The choice of this method can be justified by the fact that it can provide us with consistent and comprehensive information and valid results in what concern the aspects of the study. It is sought to obtain

a thorough assessment of the respondents' level of RC and, thenceforth, increase the understanding of the difficulties that they encounter throughout the course of developing their RC.

1.2 Research Design

The need for assessing and exploring the present issue with a varying level of depths calls for the use of a mixed method design, particularly the Explanatory descriptive design. The purpose of Explanatory research is not only to increase the understanding of the researcher on a certain topic but also to determine how and why things happen (Explanatory Research, 2018). It is a type of research design that is opted for when the problem being researched has not been profoundly investigated before. Hence, in a typical explanatory descriptive design, a researcher would launch the investigation with a quantitative study then proceed with a qualitative one for the purpose of answering the research problem.

1.3 The Sample and Setting

The current research population are master two linguistic students at The Department of Letters and English Language at Msila University during the academic year 2019/2020. The total number of students participating in this study is thirty (30) students (of a total population of 70 student), twenty-two (22) females and eight (08) males aged between twenty-two (22) to twenty-seven (27) years old. Due to coronavirus pandemic, researchers sought to achieve objectivity and reliability through the use of the convenience sampling method where the sample is drawn from the target population that was available and willing to participate online.

1.4 Data Collection Tools

This study opted for two research instruments to collect data about the difficulties faced by master two linguistic students when achieving their research competence. A test was designed to test students' RC and a questionnaire to identify the difficulties students face when conducting their research and the impact of these difficulties on their research competence. The design of both tools was under the consultation of the supervisor who helped in designing and directing their content and other two university teachers who validated them.

1.4.1 Students' Questionnaire

The researchers designed this questionnaire to investigate the difficulties that encounter master two linguistic students while developing their RC and the reasons behind these difficulties, as well as to come up with some solutions to overcome them. It was administered online to master two linguistic students at The Department of Letters and English language at M'sila University using Google Forms Application from Google Services.

As for the form of the questionnaire, it consists of eighteen (18) items (see appendix two) divided into two sections. The first section is bio-data which contains four (04) questions about students' personal information including their gender, age, and their perceptions of their levels of RC. The second section is composed of fourteen (14) items which deal with conducting research difficulties and the reasons behind them. In order to obtain in depth information and to ensure the validity of responses, the researchers designed a semi structured questionnaires that contain both close-ended and open-ended items.

1.4.2 Research Competence Test (RCT)

A five-point Likert scale ranging from 'strongly disagree' to 'strongly agree' was employed to assess master two linguistic students' levels of RC that denotes their ability to conduct research. The Likert type of scale was selected to increase response quality and response rate along with reducing participants' level of frustration, to enable the researchers to create an easy to administer test with a large number of items, and to facilitate working with quantitative data.

Researchers designed a test of fifty-five (55) items divided into seven (07) sections (see appendix one). Each section focuses on a particular set of research skills. After identifying the skills deemed necessary for the conduction of research, i.e. that constitute the RC, and defining them operationally, items were developed for each skill. Some of these items were adapted from existing instruments available in the literature Subahan et al. (2011), P. Facione & N. Facione & The California Academic press (1994). The rest of the items were developed by the researchers themselves after thoughtful reading of the theoretical background. The following table displays the structure of the RCT.

Table 1:

RCT contents

Section	Objective	Number of items
Information Seeking Skills	To measure master two students' ability to search, use, and evaluates information.	4 items
Methodology Skills	To assess students' ability to identify and design appropriate research procedures and understand the limitations and scope of research design.	14 items
Academic Communicative Skills	To obtain data about the participants' ability to present the research and its findings, communicate the purpose and outcomes of research to others, summarise information, explain the purpose, objectives and conclusions of the research, and tailor the communication to the needs and knowledge level of a particular audience.	08 items
Problem-Solving Skills	To explore the informants' ability to identify, define and analyse problems, to create solutions and evaluate them, and to choose the best solution for a particular context. It also measures their imaginative and innovative thinking as well as their analytical and reasoning skills.	05 items
Critical Thinking Skills	To identify the students' ability to critically examine and understand published research, identify reliable information and make reliable judgment, and analyze, evaluate, classify and defend different points of view.	05 items
Academic Writing Skills	To gather information about students' academic skills and their ability to use proper academic language and accurate mechanics, and to write accurate summaries, paraphrases and quotations.	12 items
Research Ethics	To elicit the students' knowledge of human subjects' protection and their ability to protect the participants' anonymity, privacy and confidentiality.	(07) items

1.4.3 Piloting Research Instruments

For the purpose of checking the research feasibility, ensuring the validity and reliability of the research tools and improving the research design, a pilot study was conducted prior to performance of the full-scale research work. Five (05) students who belong to the same population were selected and observed while answering the test and the questionnaire to ensure that all the items and questions in both the test and the questionnaire are clear and understandable to everyone. Additionally, they were asked to mention any ambiguity that might arise while doing the test and the questionnaire and elicit their opinions about the complexity, order, length of the items and questions of the tools.

The pilot study revealed that some items were not clear enough for students as they asked for clarifications. In addition, some of them claimed that the tools were too long and could not be carried out in a short period of time. In this way, some questions were reformulated and restated in a simpler way so that the students can easily understand their right use such as *'I can extract and carry out basic analysis of key data sets (using MS excel) by producing frequencies tables graphs calculating rate proportion and cross tabulation'* to *'I can use statistical tools'* and *'Once I choose a solution I develop an implementation plan with the sequence of events necessary for completion'* to *'I can develop an appropriate plan once I choose a solution'*. Moreover, a whole section in the test was omitted under the name of 'research wellbeing' as it showed little relevance to the whole test. Additionally, a large number of items were omitted from different sections. .

1.5 Statistical Analysis tools

The current research work utilised a couple of statistical tools wherein all the statistical operations were conducted by using both IBM SPSS and Microsoft Excel. The following definitions can clarify some statistical measures that were used in the analysis of the gathered data.

- **The sample Mean**

The mean is an accurate and reliable measure of the central tendency of a distribution of data. In other words, it is the simple average of the numbers in a data set. The sample mean defined as the sum of all the values of the items in a series divided by the number of items. (Singh, 2006), hence, the following formula was used in this study:

$$\bar{x} = (\Sigma\, xi) / n$$

Where Σ xi is sum of all data values and n is number of data items in the sample.

- **The Standard Deviation (STD)**

The Standard Deviation measures the dispersion of a data set. It is calculated as the square root of variance by determining each data point's deviation relative to the mean (Singh, 2006). If the data points are farther from the mean, there is a larger variance within the data set; hence, the further the data stretches, the higher the standard deviation (Hargrave, 2020). It was calculated using this formula;

$$\mathrm{SD}_{\mathrm{sample}} = \sqrt{\frac{\sum |x - \bar{x}|^2}{n-1}}$$

Where ∑ means "sum of", x is a value in the data set, $\bar{x}$ is the mean, and n is the number of data points in the sample.

- **Pearson Correlation Coefficient (r)**

Pearson's correlation coefficient (r) is a measure of the strength and direction of the statistical relationship between two continuous variables (Data Analysis, 2020). It has a value that ranges from +1 to -1, in which +1 implies a strong positive relationship, -1 entails strong negative relationship, and 0 entails no relationship exists (Pearson's Correlation Coefficient, 2020). The basic formula for Pearson Correlation Coefficient is:

$$r = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \times \Sigma y^2}}$$

Where x and y refer to the deviation of scores in the tests *X* and *Y* from the means of each distribution.

- **Cronbach's Alpha Reliability Coefficient**

Cronbach's alpha is a measure used to assess the internal consistency or reliability of a set of scale or test items. Reliability, in simpler words, is the stability of a test scores whenever the test or the research work results are repeated (Goforth, 2015). The formula for Cornbach's Coefficient alpha is:

$$\alpha = \frac{n}{n-1}\left(1 - \frac{\Sigma Vi}{Vtest}\right)$$

Where n is the number of items on the measure, Vi is the variance of scores on each item, and Vtest is the total variance of overall scores on the entire test.

1.6 Procedures

In this study, the researcher collected and analyzed data using two different instruments which are a questionnaire and a test. First of all, the researchers designed the research tools based on the available literature review and theoretical background. The design of both

tools was under the consultation of the supervisor who helped in designing and directing their content and other university teachers who validated them. After that, the researchers conducted a pilot study to check the research feasibility and ensure the validity and reliability of the research tools. Both tools were administered online using Google forms application from Google services to master two linguistic students that were available and willing to participate online, at the department of Letters and English language at M'sila University.

After the test and the questionnaire were collected, the researchers analysed each tool quantitatively and each question separately from the other questions, using the descriptive statistical analysis in particular, frequency and percentage, mean and standard deviation. This choice was based on the nature of the research design which is descriptive. The representation of the results was in the form of tables and graphs, accompanied by explanations and clarifications, followed or preceded each table or figure.

2. Data Analysis and Findings Discussion

This section highlights the detailed description, analysis and discussion of the results obtained through the students' responses. Initially, it starts with the test's data analysis and discussion, which answers the first question of the study. Next, it attempts to provide an in-depth analysis and discussion of the questionnaire's findings, which answers the second research question. Subsequently, it provides a general discussion of the findings of the study where the results of both tools are combined and discussed. In addition to the general conclusion that is drawn at the end, it presents some limitations, suggestions for further research and pedagogical implementations.

2.1 RCT Validity and Reliability

First reliability test used in this study is the Cronbach's alpha reliability coefficient of a sample of 30 respondents, in which the researchers were obliged to use the main study sample due to the effect of the coronavirus pandemic on finding pilot students. Table 02 below represents the value of alpha of the whole test.

Table 02:

Reliability Statistics

Cronbach's Alpha	N of Items
,899	55

According to table 2, it was found that the value of alpha of the whole test is 0.899 which is a very high value indicating a high reliability of the RCT. Table 03 represents the RCT sections' Reliability.

Table 03:

Sections' Reliability

Section	Cronbach's Alpha	N of Items
1	,459	4
2	,766	14
3	,769	8
4	,694	5
5	,745	5
6	,798	12

7	,618	7

According to table 03, the alpha coefficient for section 1 is ,459, suggesting that the items have slightly low internal consistency. Whereas, the alpha coefficient for section 2, 3, 4, 5, 6 and 7 ranges between [,618; ,798] which indicates that the items of the aforementioned sections have considerably acceptable to decent internal consistency. Overall, this provides and evidence of the acceptable level of internal consistency as thus the relatively trusted reliability of the RCT.

Validity was measured using internal consistency through the correlation analysis by means of Pearson correlation Coefficient (r). Correlation between test sections scores and the whole test scores are summarized in table 04 below.

Table 04:

Internal consistency test for RCT

	1	**2**	**3**	**4**	**5**	**6**	**7**
Pearson Correlation	,453*	,738**	,785**	,656**	,661**	,765**	,534**
Sig. (2-tailed)	,012	,000	,000	,000	,000	,000	,002
N	30	30	30	30	30	30	30

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

From table 04 all the values of r are statistically significant at both levels p=0.05 and p=0.01. The values of r ranging from 0.453 as the lowest value and 0.785 as the highest value are an evidence of the good level of correlation between test sections and the whole

test, this also is an evidence of the good level of internal consistency as thus the trusted validity of the RCT.

2.2 Data Analysis of the First Research Question

To identify students' level of RC, the whole test data descriptives are summarized in the following table 05, in which the highest value a student can get is 275 and the lowest is 55. Here the analysis will describe the whole level of the students, and answer the first question of this study.

Table 05:

Level of Research Competence

		Min	Max	Mean	Std. Deviation
RC	30	158,00	247,00	207,26	20,57
Valid N (listwise)	30				

According to the results presented in table 5, the total mean of the answers in the test was 207,26 which is fairly high score. Furthermore; the relatively low standard deviation (20,57) shows that the group is fairly homogenous in their level of research competence. From these data, it can be concluded that the level of RC of master two linguistic students is average to acceptable.

To identify the levels of students in the different skills part of the research competence, the seven sections descriptives are summarized in the following table 06. The analysis of table 06 reveals where students are exactly strong by comparing the means and standard deviations.

Table 06:

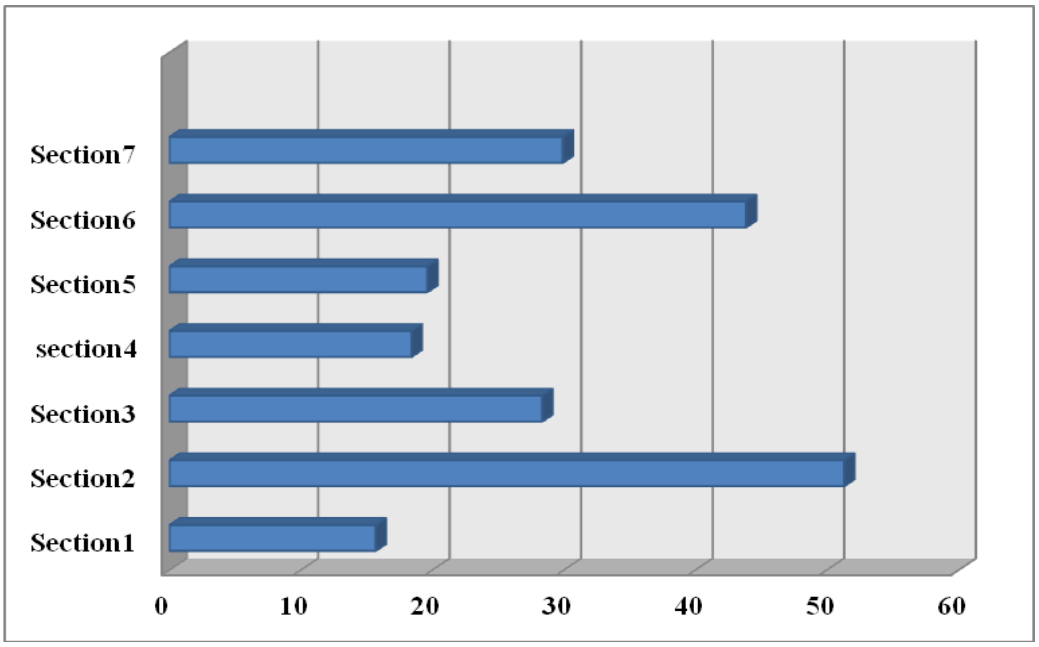
Sections Descriptives

Section	N	Min	Max	Mean	Std. Deviation
1	30	11,00	20,0	15,70	2,24
2	30	37,00	68,0	51,33	6,12
3	30	12,00	38,0	28,36	6,09
4	30	10,00	23,0	18,43	2,75
5	30	12,00	25,0	19,63	2,91
6	30	32,00	54,0	43,86	6,33
7	30	23,00	35,0	29,93	3,26
Valid N	30				

Graph 02 shows clearly the exact sections in which students show strength or weakness.

Graph 01:

Test Sections Descriptives



According to the results presented in table 06 and graph 01, compared to the possible highest score students can get in each section, the mean scores for section 1,4, 5, and 7 are significantly high at 15.7, 18.43, 19.63 and 29.93. Therefore, this analysis presents some evidence that the majority of master two students have a good mastery of information seeking skills, problem solving skills, critical thinking skills and research ethics. On the other hand, the total answers for the mean scores for section 2, 3, and 6 are remarkably low at 51.33, 28.36, and 43.86. Hence, this data indicate that master two students showed underperformance in methodology skills, communicative skills and academic writing skills.

To analyse the mean scores in order to determine the students' levels, the researchers sought to use the "Hypothetical Mean of the five point Likert scale technique". The values of the mean scores determine the students' level, where the mean scores are distributed as follows:

- From 1 to 1.80 indicates very weak level
- From 1.81 until 2.60 indicates weak level
- From 2.61 until 3.40 indicates average level

- From 3.41 until 4:20 indicates Good to average level
- From 4.21 until 5:00 indicates very good, very strong level.

To identify the level of students in information seeking skills, the information seeking skills section descriptives are summarized in the following table 07.

Table 07:

Information Seeking Skills descriptives

	N	Min	Max	Mean	Std. Deviation
Item1	30	1,00	5,00	3,17	1,26
Item2	30	2,00	5,00	4,20	1,06
Item3	30	4,00	5,00	4,57	,50
Item4	30	2,00	5,00	3,77	1,00

According to table 7, the mean is calculated between 3.77 and 4.57 concerning items 3, 2, and 4 which demonstrate a strong agreement on the items. Therefore, students show a good level in realizing what affects the relevance of information, seeking different opinions to confirm their understanding and assessing the quality of the information. The mean of 3.40 for item 1 which explains most of the sample kept neutral about evaluating the expertise of the writer.

To identify the level of students in methodology skills, the methodology skills section descriptives are summarized in the following table 08.

Table 08:

Methodology Skills

	N	Min	Max	Mean	Std. Deviation
Item5	30	2,00	5,00	3,50	,82
Item6	30	1,00	5,00	3,80	,93
Item7	30	2,00	5,00	3,07	1,05
Item8	30	2,00	5,00	3,76	,89
Item9	30	3,00	5,00	4,00	,53
Item10	30	2,00	5,00	3,86	,68
Item11	30	1,00	5,00	3,23	1,25
Item12	30	2,00	5,00	3,60	,85
Item13	30	2,00	5,00	3,97	,55
Item14	30	2,00	5,00	3,90	,66
Item15	30	1,00	5,00	3,53	1,01
Item16	30	2,00	5,00	3,70	,75
Item17	30	1,00	5,00	3,87	1,01
Item18	30	1,00	5,00	3,53	1,01

According to table 08, the mean scores for item 07 and 11 are rather average between 3.07 and 3.23. This data indicate that most students chose to select the 'neutral' box in the aforementioned items. Therefore, this analysis reveals either lack of awareness or lack of competence and use of the skills of developing a data collection tool and using statistical instruments. Furthermore, there was a general agreement on the items 5, 6, 8, 12, 13, 14, 15, 16, 17 and 18 with relatively average mean scores ranging from 3.50 to 4.00. This entails that the vast majority of the informants show a decent performance in

selecting an appropriate research method, selecting an appropriate data collection tool, formulating research questions, formulating research objectives, formulating hypotheses, interpreting the results of a research study, collecting and analysing quantitative data, collecting and analysing qualitative dada, formulating an outline, and formulating a good problem statement.

To identify the level of students' communication skills, the communication skills section descriptives are summarized in the following table 9.

Table 9:

Communication Skills

	N	Min	Max	Mean	Std.Deviation
Item 19	30	1,00	5,00	3,77	1,14
Item 20	30	1,00	5,00	3,47	1,19
Item 21	30	2,00	5,00	3,57	1,04
Item 22	30	1,00	5,00	3,36	1,27
Item 23	30	1,00	5,00	3,00	1,46
Item 24	30	1,00	5,00	4,10	1,12
Item 25	30	1,00	5,00	3,37	1,35
Item 26	30	1,00	5,00	3,73	1,23

According to the data presented in table 09, the mean score for the five items: 19, 20, 21, 24, and 26 is high between 3.47 and 4.10 which demonstrate a strong agreement of the items. This analysis therefore indicates that most master two students can easily establish relations with other classmates, express wide range of communicative functions, and hold a scientific discussion to defend their dissertation. Therefore, students are able to communicate with their partners and participants, express a wide range of communicative

functions, maintain and develop topics of conversations and hold a scientific discussion to defend their dissertation. The mean score for items 22, 23, and 25 is calculated between 3 and 3.37 which indicate most of the sample kept neutral about communicating their ideas briefly and clearly, communicating with their supervisors and not being tense or nervous while speaking. This finding is the result of luck of awrenss or weakness in achieving these skills.

To identify the level of students' communication skills, the communication skills section descriptives are summarized in the following table 10.

Table 10*:*

Problem Solving Skills

	N	Min	Max	Mean	Std.Deviatio
Item 27	30	2,00	4,00	3,77	,57
Item 28	30	2,00	5,00	3,63	,85
Item 29	30	2,00	5,00	3,57	,94
Item 30	30	2,00	5,00	3,57	,89
Item 31	30	2,00	5,00	3,90	,76

According to table 10, a mean with a distance of [3.57; 3.90] was of the selection of 'Agree' and it was devoted to items 27, 28, 29, 30 and 31. This analysis demonstrates that master two students have a good level of problem solving skills, and thus, are able to define each problem carefully before trying to solve it, analyse the problem from different perspectives, break down the problem into manageable components and structure them in a logical order, evaluate potential solutions carefully and thoroughly according to a predefined standard, and develop an appropriate plan once choosing a solution.

To identify the level of students' critical thinking skills, the critical thinking skills section descriptives are summarized in the following table 11.

Table 11*:*

Critical Thinking Skills Descriptives

	N	Min	Max	Mean	Std.Deviation
Item 32	30	2,00	5,00	3,77	,89
Item 33	30	2,00	5,00	3,80	,85
Item 34	30	2,00	5,00	3,83	,70
Item 35	30	2,00	5,00	4,00	,91
Item 36	30	2,00	5,00	4,23	,77

According to table 11, the mean calculated between 3.77 and 4.23 concerning all the five items which demonstrates a strong agreement on all the items. This analysis indicates that the majority of master two students are able to interpret evidence and determine its significance, identify the relevant arguments within the problem context, analyse and evaluate and classify different points of view, and do not defend views based on their self-interest but rather based on reasons and evidence. To conclude, the mean scores of all the five items is very high, which indicates that master two students have a good mastery of critical thinking skills.

To identify the level of students' academic writing skills, this section' descriptives are summarized in the following table 12.

Table 12*:*

Academic Writing Skills Descriptives

	N	Min	Max	Mean	Std. Deviation
Item 37	30	2,00	4,00	3,63	,76
Item 38	30	2,00	5,00	3,93	,52
Item 39	30	2,00	5,00	4,00	,69
Item 40	30	2,00	5,00	3,70	,95
Item 41	30	1,00	5,00	3,66	1,06
Item 42	30	1,00	5,00	3,73	1,08
Item 43	30	1,00	5,00	3,76	1,19
Item 44	30	1,00	5,00	3,50	1,17
Item 45	30	1,00	5,00	3,16	1,02
Item 46	30	2,00	5,00	4,00	,79
Item 47	30	2,00	5,00	3,43	,97
Item 48	30	2,00	5,00	3,33	,92

According to the results presented in table 12, the mean scores for items 45 and 48 are considerably average between 03.16 and 03.33 which explain that most of the participants are kept neutral. The analysis of this data set reveals that most master two students are either unaware, or do not use or achieve not only proper academic language but also parallelism in their writing. However, the mean calculated between 03.43 and 04.00 concerning items 37, 38, 39, 40, 41, 42, 43, 44, 46 and 47 indicates a good to average level regarding writing accurate summaries, writing accurate paraphrases, writing accurate quotations, using appropriate mechanics, using accurate citations using APA, writing accurate references using APA, not having problems of using correct grammar,

using a wide range of transition words to link sentences smoothly, achieving objectivity, and knowing exactly where to hedge or boast in their research writing.

To identify the student's level of research ethics, the research ethics section descriptives are summarized in the following table 13.

Table 13:

Research Ethics

	N	Min	Max	Mean	Std. Deviation
Item 49	30	1,00	5,00	3,60	1,22
Item 50	30	2,00	5,00	4,57	,67
Item 51	30	3,00	5,00	4,53	,63
Item 52	30	2,00	5,00	4,33	,76
Item 53	30	4,00	5,00	4,53	,51
Item 54	30	3,00	5,00	4,53	,57
Item 55	30	1,00	5,00	3,83	1,23

According to the results presented in table 13, the mean score for all the item is high between 3.60 and 4.57 which demonstrates a strong agreement on all the items. Therefore, this data indicates that master two students are aware of human subject protection and the manipulation of data, participants' confidentiality and privacy, participants' autonomy and intellectual properties' citation. As well as, the prohibition of the exploitation of participants and the need for ethical approval.

2.3 Data Analysis of the Second Research Question

This section seeks to answer the second research question by interpreting and discussing the questionnaire's results.

The first item of the questionnaire is about students' perceptions about their level of research competence. The item descriptives are summarized in the following table 14 and Graph 3.

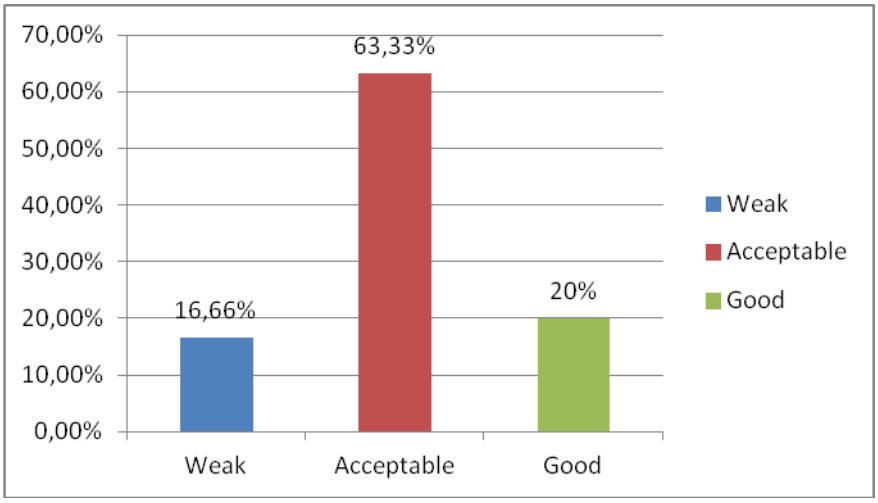
Table 14:

Students' Evaluation to Their Level of Research Competence

Options	Percentage %
Weak	16.66%
Acceptable	63.33%
Good	20%

Graph 2:

Students' Evaluation to Their Level of Research Competence



According to the results derived from the analysis of data, it can be concluded that the vast majority of master two students (63.33%) perceive their RC as being acceptable; whereas, few of them (20%) claimed that they have a good level of research competence, and only (16,66%) thought that their level of research competence is weak.

The second item is about the reasons behind enrolling master two students in a master degree. The item descriptives are summarized in the following table 15 and Graph 3.

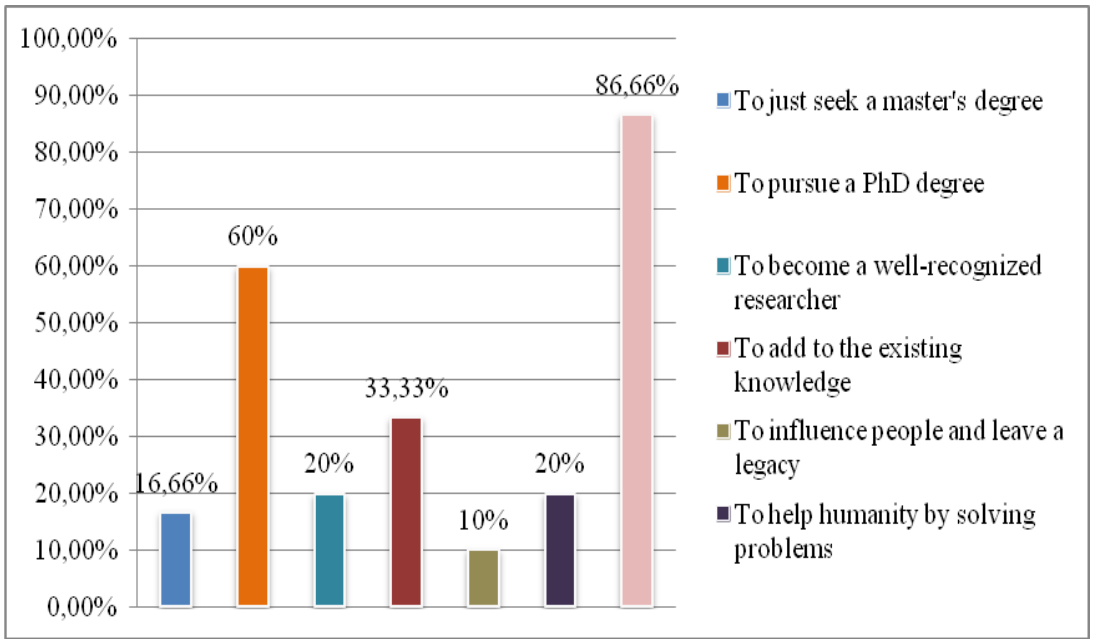
Table 15:

The Reason behind Enrolling in a Master Degree

Options	Percentage %
To just seek a master degree.	16.66%
To pursue a PhD degree.	60%
To become a well-recognized researcher.	20%
To add to the existing knowledge.	33.33%
To influence people and leave a legacy.	10%
To help humanity by solving problems.	20%
To increase my chances of getting a good job	86.66%

Graph 3:

The Reason behind Enrolling in a Master Degree



The data gathered indicate that the two most frequent reasons behind master two students' enrolling in a master's degree are to increase their chances of getting a good job

with a great frequency of (86.66%) and to pursue a PhD degree with a frequency of (60%). Less than half of the students (33.33%) claimed that their reason behind enrolling in a master's degree is to add to the existing knowledge, (20%) of students said that they enrol in a master degree to help humanity by solving problems; while (16.66%) stated that they enrol to just seek a master degree, and only (10%) of students displayed that their main reason for enrolling in a master degree is to influence people and leave a legacy.

The third item of the questionnaire is about the skills that master two students face difficulties with. The item descriptives are summarized in the following table 16 and Graph 4.

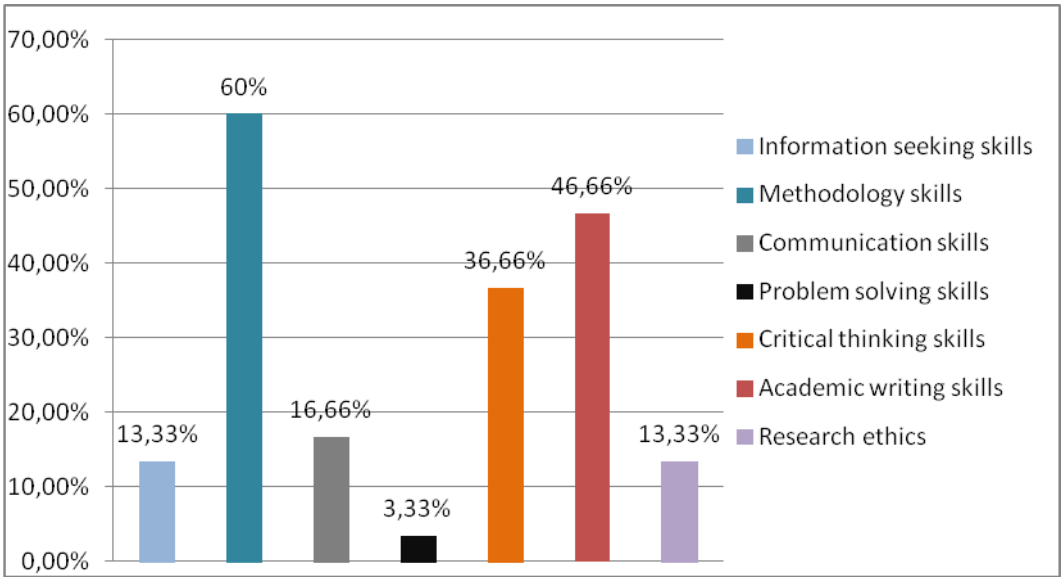
Table 16:

The Skills that the Students Face Difficulties with

Options	**Percentage %**
Information seeking skills	13.33%
Methodology skills	60%
Communication skills	16.66%
Problem solving skills	3.33%
Critical thinking skills	36.66%
Academic writing skills	46.66%
Research ethics	13.33%

Graph 4:

The Skills that the Students Face Difficulties with



The results clearly revealed that the majority of learners (60%) faced difficulties with the methodology skills, less than half of learners (46.66%) displayed that they encountered difficulties with the academic writing skills; Others, (36.66%) stated that they have some difficulties with critical thinking skills, only few learners (16.66%) related their difficulties to the communication skills, (13.33%) of learners claimed that they have difficulties in both research ethics and information seeking skills; whereas, only one student (3.33%) stated that he encounter difficulties in problem solving skills.

Tightly related to the previous one, the forth item is about the source of the difficulties that hinder learners from developing their research competence. Twenty-seven (27) of the participants among thirty (30) answered the question this question. The majority of the respondents (20) referred it to the syllabus and the poor educational programme. That is to say, the lack of practice and training on conducting dissertations, the lack of academic input and the limited provided knowledge of research methodology and research skills. Few participants (05) referred it to the teachers and the lack of guidance and

supervision provided by them. The other three participants referred it to the low level of research skills and the lack of knowledge of research methodology.

The fifth item is about how students overcome the difficulties that hinder them from developing their research competence. Twenty-five (25) of the participants out of thirty (30) answered this question. However, five (05) of them claimed that they did not overcome these difficulties yet. The strategies which students mentioned are listed below:

- Researching and reading about academic and scientific research skills
- Seeking supervisors' guidance and asking help from other professors and teachers
- Checking several previous studies and reading as much articles as they can
- Reading other dissertations and research papers
- Depending on self-education with electronic resources

The sixth item is about students' difficulties when conducting master dissertation. The item descriptives are summarized in the following table 17 and Graph 5.

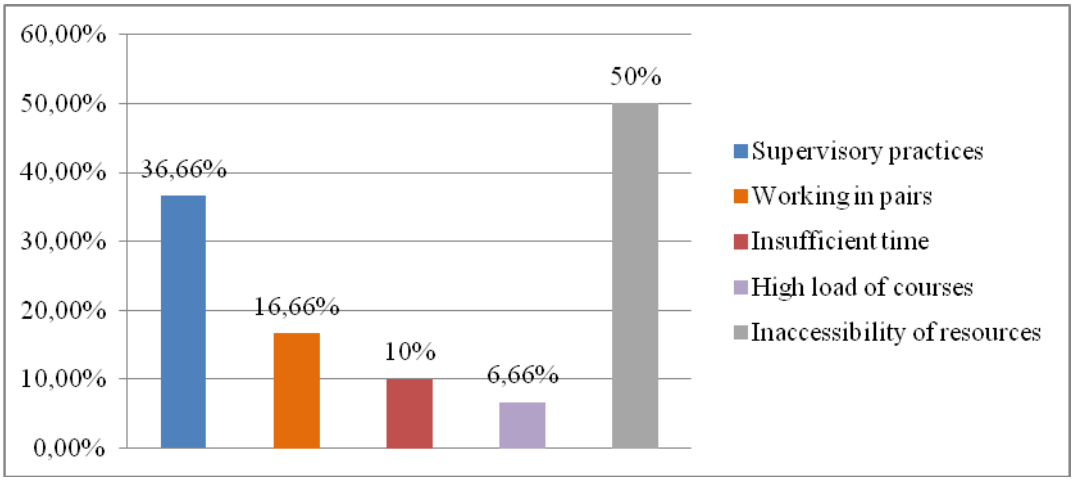
Table 17:

Students' Difficulties When Conducting Master Dissertation

Options	**Percentage %**
Supervisory practices	36.66%
Working in pairs	16.66%
Insufficient time	10%
High load of courses	6.66%
Inaccessibility of resources	50%

Graph 5:

Students' Difficulties When Conducting Master Dissertation



The results clearly clarify that half of learners (50%) related their master dissertation conducting difficulties to the inaccessibility of resources,(36.66%) of them stated that they have difficulties with/in supervisory practices, (16.66%) of learners displayed that they encounter difficulties in working in pairs, (10%) of learners face difficulties with the insufficient time provided for finishing their dissertation, and just few of them (6.66%) related their master dissertation conducting difficulties to the high load of courses.

The seventh item of the questionnaire is about the most difficult steps in the research process. The item descriptives are summarized in the following table 18 and Graph 6.

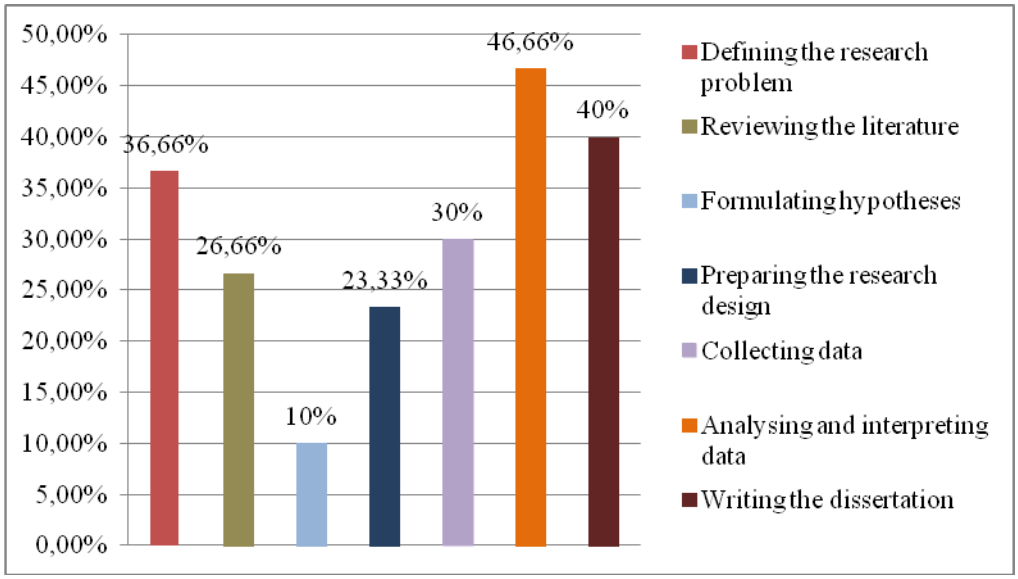
Table 18:

The Most Difficult Steps in The Research Process

Options	Percentage
Defining the research problem	36.66%
Reviewing the literature	26.66%
Formulating hypotheses	10%
Preparing the research design	23.33%
Collecting data	30%
Analysing and interpreting data	46.66%
Writing the dissertation	40%

Graph 6:

The Most Difficult Steps in The Research Process



According to this table and Graph, it is clear that analysing and interpreting data has the highest percentage (46.66%), which means that it is the most difficult step for the participants. Then, writing the dissertation with (40%), the next less difficult step is defining the research problem with (36.66%), followed by collecting data with a frequency

of (30%), after that comes reviewing the literature with (26.66%) and preparing the research design with (23.33%); finally, the least difficult step is formulating hypothesis with only (10%).

The eighth item is about the most difficult part in writing a dissertation. The item descriptives are summarized in the following table 19 and Graph 7.

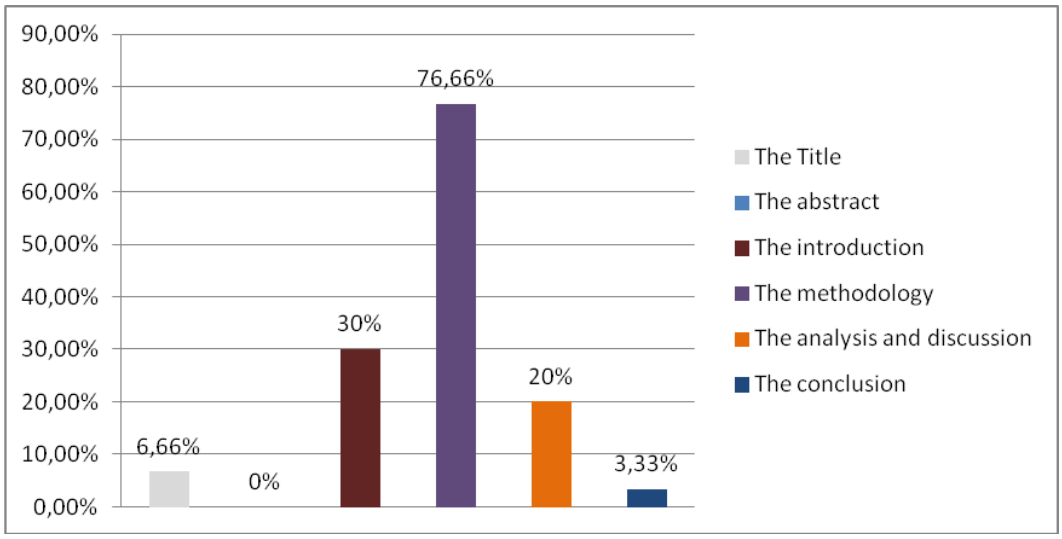
Table 19:

The Most Difficult Part in Writing a Dissertation

Options	Percentage %
The Title	6.66%
The abstract	0%
The introduction	30%
The methodology	76.66%
The analysis and discussion	20%
The conclusion	3.33%

Graph 7:

The Most Difficult Part in Writing a Dissertation



Building on research question five which confirmed that master two students do face difficulties when conducting their dissertation, research question seven targets knowing which part in dissertation writing was the most challenging for the informants. through table 18 and figure 6, the results confirm that the majority of the participant (76.66%) stated that one of the most difficult part in writing their dissertation was the methodology while none of them (0%) encountered any difficulties in writing the abstract, less than the half of participants (30%) faced difficulties in writing the introduction and found it as one of the most difficult parts, (20%) of them displayed that the analysis and discussion is the most difficult part in dissertation writing, only few of learners (6.66%) identified the title as the most difficult part of writing the dissertation, participants barely found difficulties in writing the conclusion and therefore only very few (3.33%) chose the conclusion as one of the most difficult parts in writing their dissertation. However, four participants chose none of the listed parts above, two of them stated that they faced difficulties with writing the literature review, one of them displayed that the most difficult part was writing citation and references and the other identified the bibliography as the most difficult part.

The ninth item is about the most challenging part in the research process. It targets knowing weather researching or research was the most challenging for master two students in their research process. The item descriptives are summarized in the following table 20 and Graph 8.

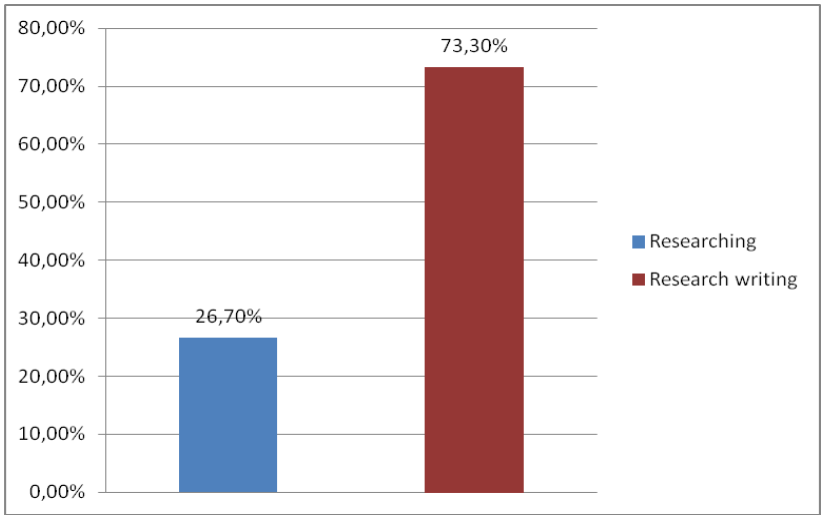
Table 20:

The Most Challenging Part in The Research Process

Options	**Percentage %**
Researching	26.70%
Research writing	73.30%

Graph 8:

The Most Challenging Part in The Research Process



The table and the figure above represent the results obtained while inquiring whether researching or research writing was the most challenging for students in their

research process. According to these results, the vast majority of students (73.30%) found research writing more challenging than researching in their research process; however, (26.70%) of learners found researching the most challenging in their research process.

The tenth item of the questionnaire is about the mistakes that master two students did when conducting their research project and that would advise novice researchers to avoid. Twenty-eight (28) students among (30) answered this question, most of what they suggest is the following:

Start early do not waste time, do not be late to find a topic, choose the right partner and the right supervisor, choose a simple topic with much resources, reach and ask teachers other than supervisor, the fast you finish your research the best, design the appropriate tools, pay attention to citation and references and do not let them to the end, and manage your time.

The eleventh item is about teachers' consultation. It targets knowing weather master two students were able to consult their supervisors regularly. The item descriptives are summarized in the following table 21 and Graph 9.

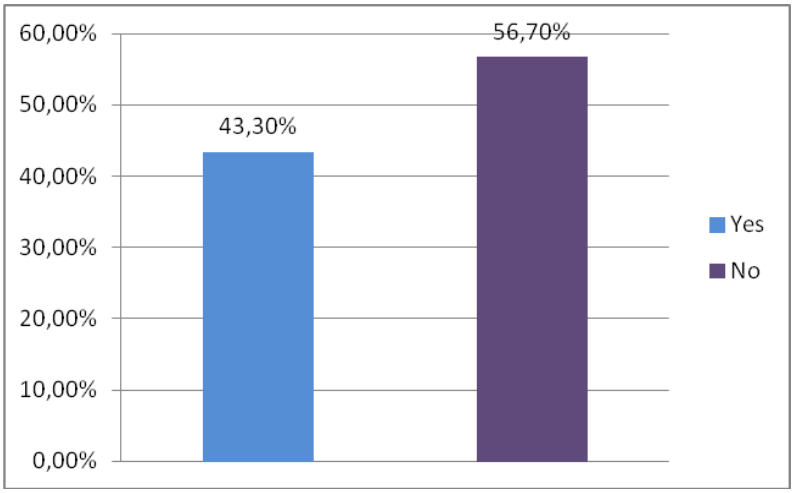
Table 21:

Teachers' Consultation

Options	**Percentage %**
Yes	43.30%
No	56.70%

Graph 9:

Teachers' Consultation



According to the results presented in table 21 and graph 9 , more than half of the students (56,70%) claimed that they were able to consult their supervisors regularly, while the others (43,30%) stated that they were not able to consult their supervisors regularly.

The twelfth item is about supervisors' meaningful feedback. It aims at knowing whether supervisors give meaningful feedback throughout the research process. The item descriptives are summarized in the following table 22 and Graph 10.

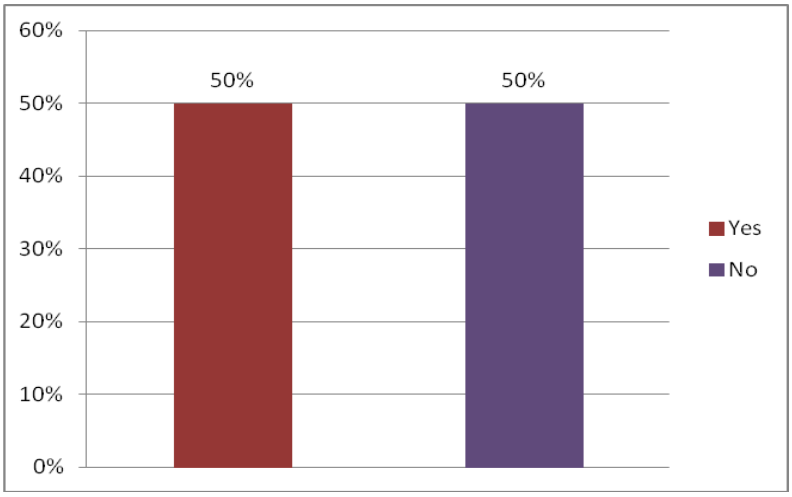
Table 22:

Supervisors' Meaningful Feedback

Options	Percentage %
Yes	50%
No	50%

Graph 10:

Supervisors' Meaningful Feedback



According to the obtained data, half of the students (50%) claimed that the supervisors do give meaningful feedback throughout the research process, and the other half (50%) claimed that supervisors do not give meaningful feedback throughout the research process.

The thirteenth item is about research partners' problems. It targets knowing the problems faced by master two students with their research partners. The item descriptives are summarized in the following table 23 and Graph 11.

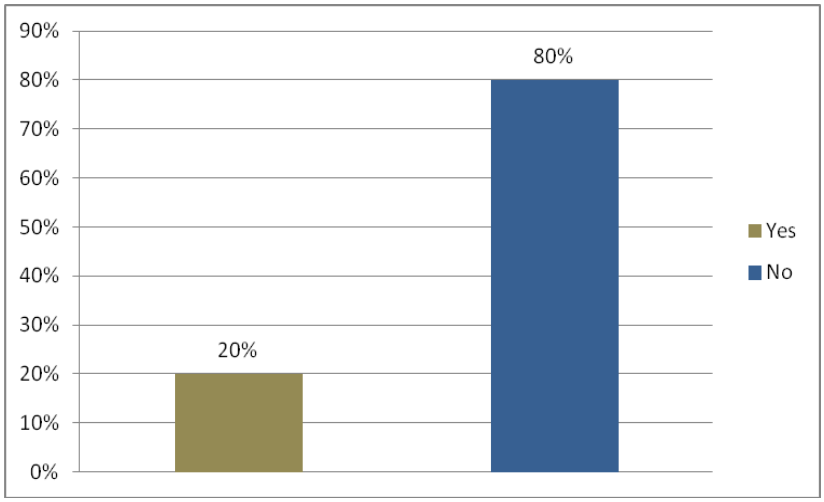
Table 23:

Research Partners' Problems

Options	**Percentage %**
Yes	20%
No	80%

Graph 11:

Research Partners' Problems



According to the obtained data, the most majority of students (80%) displayed that they did not face any problems with their research partners, while only few of them (20%) claimed that they did face some problems with their research partners. Concerning those who argued that they face some problems with their research partner, they stated that some of these problems were the lack of responsibility and seriousness of their research partners along with their weak level in grammar.

The fourteenth item is about the want to quit the research process. It aims at knowing weather master two students have ever wanted to quit conducting their research project and the reasons behind such decision. The item descriptives are summarized in the following table 24 and Graph 12.

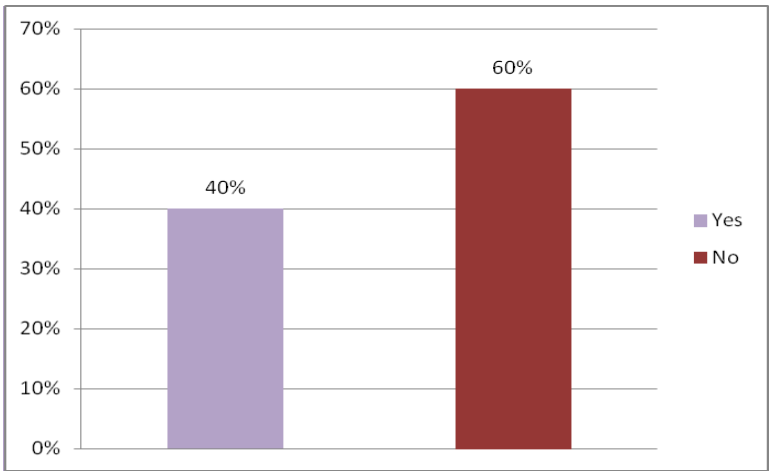
Table 24:

The Want to Quit the Research Process

Options	Percentage %
Yes	40%
No	60%

Graph 12:

The Want to Quit the Research Process



As the table and graph describe, most of the participants (60%) stated that they did not want to quit conducting their research. while, the others, (40%) displayed that they did want to quit conducting their research. Concerning the students who did want to quit conducting their research, they claimed that the reasons behind that were the lack of the resources, the irresponsible partners and supervisors, the tiring, boring and meaningless research process, the limited time and the ignorance of how the scientific research should be.

The fifteenth item of the questionnaire is about the research journey. More than half of students (17) described their research journey as boring, stressful, tiring and difficult, others (07) described it as bad experience and was not worth it; however, six (06) participants described it as a good, interesting, beneficial, fruitful and passionate journey.

3. Findings and Discussion

This research was carried out essentially to assess master two student's levels of RC development and to identify the difficulties encountered by them when conducting their research in addition to the impact of these difficulties on achieving their RC.

Based upon the previous analytical focus, the obtained results revealed that master two students' RC level is considerably decent or acceptable wherein they demonstrated strength in information seeking skills, problem solving skills, critical thinking skills and research ethics; contrariwise, they showed weakness in research methodology skills, communication skills and academic writing skills. In view of this, the majority of students are confronted with a myriad of constraints that hinder their research competence development. These challenges prominently stem from deficiencies in the overall educational programme, lack of research practice, limited provided knowledge of research methodology and low proficiency of research skills.

On such basis, students are also confronted with various levels of difficulties during their dissertation conduction process. In addition to the inadequate research-related skills, the challenges primarily included lack of sufficient reference materials, mentoring practices and working on the research project in pairs. These difficulties may lead to frustrations and withdrawal from undertaking research from the part of students and, hence, may impact the quality of the final research project.

Consistent with the test results, the questionnaire's findings confirmed that the students RC level tend to be relatively decent or acceptable. This implies that master two students have a great awareness degree of their true RC level. Furthermore, confirmed by the questionnaire's results, the test results revealed that master two students find methodology skills, communication skills and academic writing skills to be the most challenging research skills throughout the journey of developing their research competence. In line of this RCT finding, studies have shown that methodology skills and other related courses on research were not easily attainable by undergraduate and postgraduate students in the social sciences (Murtonen & Lehtinen 2003). Contrariwise,

the RCT results indicated that information seeking skills and research ethics contributed only a little degree of intricacy in their research investigations.

Moreover, the data gathered from the questionnaire demonstrated the most frequent reasons for enrolling in a master's degree, including increasing the chances of getting a decent job and pursuing a PhD degree. Additionally, it entailed the reasons behind the difficulties encountered in developing the research competence, and the results displayed that the informants referred them to the syllabus and the poor educational programme. That is to say, the challenges are due to the lack of practice and training on conducting dissertations, lack of academic input, and limited provided knowledge of research methodology and research skills. Others referred them to the lack of guidance and supervision provided by the EFL teachers at The Department of Letters and English Language at Msila University.

Additionally, it is worth noting that the students have developed some strategies to cope with the aforementioned difficulties. Amongst the strategies identified is auto didacticism or self-education of acquiring knowledge and developing skills regarding research and research methodology, excessive reading of previous research papers and mentors' guidance seeking. However, in the level of satisfaction on the facilities, the respondents are looking for more accessible reference materials including journals, books, articles and research papers. Evidently, Gürel (2011) suggested a set of strategies that students can use, such as looking for published research for text format and content, doing a great deal of reading of the literature, getting feedback from the advisor or other professors, having discussions with senior students or peers, and making use of peer help in reviewing writing in terms of content.

The findings of the questionnaire also revealed the difficulties students encounter when conducting their master dissertation and these were found related to inaccessibility of resources, supervisory practices and working in pairs. Similarly, Bocar (2009) arguably held the belief that many influences come into play, when conducting research, and affect the quality of the research work. These factors can be personal, including the students' knowledge of the field, communication skills, socioeconomic condition and commitment, institutional, including physical facilities, cooperation and funds(Safari et al 2015), supervision related including supervisors' knowledge of the subject area, relationship with supervisees, timely feedback, research environment related including the presence of dedicated faculties of education and research councils, peer support, research partner collaboration (Pitchforth et al 2012).

Throughout the research process, the steps that the students found the most difficult to conduct are analysing and interpreting data, writing the dissertation and defining the research problem. More precisely, the majority of the students found the methodology and the general introduction to be the most difficult sections in the dissertation writing. Accordingly, the majority of the students participating in this study found research writing to be more challenging than researching when undertaking research. This was confirmed before by the RCT results that demonstrated the informants' substandard performance in academic writing skills. In this regard, some recommendations were given by master two students to novice researchers concerning research project conduction, including starting early with undertaking research without wasting time, choosing the right partner and the right supervisor, choosing a simple topic with much resources and reaching for other people seeking their help and guidance.

Additionally, the questionnaire showed that the moiety of the sample admitted that their supervisors were committed to provide them with meaningful feedback throughout the research process. At the same time, the majority of the students also displayed that they did not face any problems with their research partners, and, therefore, did not want to quit conducting their research. Finally, the majority described their research journey as being boring, stressful, tiring and difficult and was not worth the hard work that was put into it. Bocar (2009) proclaimed that undertaking a research project is a laborious task that requires the researcher to have a large amount of interest in doing it. In the same vein, Sadeghi and Khajepasha (2015) argued that research project conduction is perhaps the most daunting part of graduate education. Furthermore, having too much liberty in the research process might be frustrating for some students and might put them in problematic situations (Kalpokaite & Radivojevic, 2019).

Concisely put, notwithstanding the students' acceptable level of research competence, they still encounter diverse difficulties when embarking upon the research journey for the purpose of achieving research competence. Ergo, students should be prepared academically, psychologically and mentally before research project undertaking.

4. Pedagogical Implications

Based on the findings of the present study and the reviewed literature, some suggestions and pedagogical implications seem to be appropriate.

- Research trainings and workshops should be regularly mounted to not only install in the students the research culture and the basics of undertaking research but also

provide tremendous opportunities to practice research aside from merely considering it as a course requirement.

- Furthermore, students could present their work to peers and tutors for some critiquing. This would also be a source of motivation for students to undertake research.
- Ample support should be provided by the administration of the department to those students undertaking research.
- Universities should support incoming students in developing academic writing skills as early as possible. Academic writing module should be cared for right from the beginning of the academic year of first year license. These classes should be constructed and based upon their changing needs and involve purposeful practices.
- Students and teachers should be provided with research supervision guidelines so that both sides will be able to know what is expected of them throughout the process of research projects conduction, as well as, their writing of the dissertations.

5. Limitations

The present study has a number of limitations that should be highlighted. Firstly, the most important limitation was the unfavourable circumstances the world is going through. Due to coronavirus pandemic all the Algerian universities are closed which hindered the on-going of the research. Researchers faced serious problems in collecting data, as they could not reach all the students and the teachers, which made it impossible to achieve validity and reliability thorough random sampling but rather through adopting the

convenience sampling method. Moreover, the sample was drawn from the target population that was available and willing to participate online.

Another limitation related to the study sample was the number (30 master two linguistics students at M'sila university) that could obstruct generalising the result. For this reason, the established inferences are specific to this sample, and they do not represent all Algerian universities.

Furthermore, the researchers had to drop teachers' questionnaire as part of the investigation of the difficulties faced by student researchers when developing their RC, because teachers did not accept to respond to it. In fact, researchers contacted more than ten (10) teachers but none of them was willing to participate except for one teacher.

6. Suggestions for Further Research

Research competence is still in its infancy, especially in the Arab and Algerian contexts. There is, therefore, a need for greater effort on the part of researchers and linguists to carry out further work to explore the essence of this linguistic phenomenon in detail. This research was conducted with master two students at M'sila University as a context. In order to further confirm the findings, researchers suggest that future studies need to involve a wide range of homogeneous participants from various universities and institutions in an effort to enhance the validity and reliability of the results.

Moreover, data collection occurred at only one university, thereby preventing the generalization of findings. Future research should therefore gather data from different institutions, allowing for more general conclusions to be drawn. In addition, further discussion and validation of the proposed research competence test model and the questionnaire are required to improve the reliability of the scales.

Due to the lack of time, the reliability and validity methods used in this study were not enough. Thereby, researchers suggest that future studies need to involve other testing techniques; such as Test-Retest reliability, internal consistency and Inter-rater reliability to enhance the reliability and validity of the findings.

Conclusion

Throughout this chapter, the research investigation has been endowed with a practical framework for the purpose of fulfilling the aim of this study which has been put forward at the beginning of this paper. This chapter fundamentally dealt with the methodological concerns of this study. Moreover, it provided some recommendations based on the gathered data, limitations of the study and suggestions for further research.

As it stands, the results gathered have proved that the majority of the students are facing various problems in terms of developing their research competence, which affected their undertaking and writing of research projects.

General conclusion

Due to the fact that research is considered one of the major functions of higher education and a part of the curriculum of undergraduate students which needs to be fulfilled as a requirement for the completion of a degree. Researchers, in the present study, endeavoured to investigate the level of master two students' RC and the difficulties they face when conducting their research, as well as, the impact of these difficulties on achieving their RC.

To achieve this, the researchers used the mixed method research approach, in which both quantitative and qualitative data were collected and analysed through the use of a semi structured questionnaire and a test designed to test the levels of RC among a sample of 30 master two linguistic students at the Department of Letters and English Language at M'sila university. This study was substantially focused on the quantitative method, as the most effective way to examine the RC levels of the students, followed by a qualitative explanatory evaluation that provided comprehensive information and valid results about the different difficulties that master two students' encounter when conducting their research.

The findings of this research reveal that master two learners at M'sila University were found to have a decent level of research competence, they have a good mastery of information seeking skills, problem solving skills, critical thinking skills and research ethics. On the other hand, they showed underperformance in methodology skills, communicative skills and academic writing skills. They encountered many difficulties when conducting their dissertation. These difficulties result from shortcomings in the

overall curriculum, insufficient understanding of the research methods, a lack of research practice and the poor level of research skills.

From the results, the researchers come up with very relevant points that should be taken into account by policy makers, EFL teachers and EFL learners as well. First, instructional system has to provide a sufficient time for research skills module so that learners can have more opportunities to practice research and to acquire adequate knowledge of research methodology. Second, EFL teachers are considered responsible for helping learners to avoid these difficulties that occur during the research conduction process. Therefore, teachers are advised to use these findings for an effective teaching of research skills in the future and using appropriate methods and strategies that contribute to developing students' research competence, whereas students are encouraged to use the findings in developing their research competence and successfully carry out their research projects.

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Appendices

Appendix One: Research Competence Test

Dear student,

This test is designed to gather data about assessing master two students' research competence level. You are kindly requested to tick (√) the relevant boxes based on the scale below.

Thank you for your collaboration.

Information seeking skills:

Statements	Strongly	Disagree	Neutral	Agree	Strongly
1. I evaluate the expertise of the writer.					
2. I realize that time effects the relevance of the information.					
3. I seek different opinions to confirm my understanding.					
4. I can assess the quality of the information whether it is accurate, reliable, valid or unbiased.					

Methodology skills:

5. I can select an appropriate research method for my research					

problem.					
6. I can select an appropriate data collection tool for my research.					
7. I have the skills to develop a data collection tool for my research.					
8. I can formulate clear, answerable, relevant and simple research questions.					
9. I can formulate valid research objectives.					
10. I can formulate valid hypotheses.					
11. I can use statistical tools.					
12. I can interpret the results of a research study.					
13. I can collect quantitative data.					
14. I can collect qualitative dada.					
15. I can analyse quantitative data .					
16. I can analyse qualitative data.					
17. I can formulate an outline for my theoretical part.					
18. I can formulate a good problem statement.					

Communicative skills:

19. I can easily communicate with my research participants.					
20. I can maintain and develop topics of conversation.					
21. I can express a wide range of communicative functions (e.g. request information /provide clarification /commenting /rejecting, etc.).					
22. I can communicate my ideas briefly and clearly.					
23. While speaking, I am not too tense or nervous sounding.					
24. I can easily communicate with my research partner.					
25. I can easily communicate with my supervisor.					
26. I can hold a scientific discussion to defend my dissertation.					

Problem-solving skills:

27. I can define each problem carefully before trying to solve it.					
28. I make sure to analyse the problem from different perspectives.					
29. I can break down the problem into manageable components and structure them in a logical order.					
30. I can evaluate potential solutions carefully and thoroughly according to a predefined standard.					
31. I can develop an appropriate plan once I choose a solution.					

Critical thinking skills:

32. I can interpret evidence and determine its significance.					
33. I can identify the relevant arguments within the problem context.					
34. I can analyse and evaluate different points of view.					
35. I don't defend views based on my self-interest but rather based on reasons and evidence.					
36. I can classify different points of view in terms of similarities and contractions.					

Academic writing skills

37. I can write accurate summaries.					
38. I can write accurate paraphrases.					
39. I can write accurate quotations.					
40. I can use appropriate mechanics (spelling, capitalization and punctuation).					
41. I can use accurate citations using APA.					
42. I can write accurate references using APA.					
43. I do not have problems of using correct grammar.					
44. I can use wide range of transition words to link sentences smoothly (coherence).					
45. I can use proper academic language and vocabulary (style).					
46. I can achieve objectivity.					
47. I know exactly where to hedge or boast in my research writing.					
48. I can achieve parallelism in my writing.					

Research Ethics

49. I have full knowledge of human subjects protection.					
50. I respect the confidentiality and privacy of participants.					
51. I understand the need for the research participants' autonomy.					
52. I understand the need for ethical approvals to be obtained before research activities are initiated.					
53. I understand that the exploitation of participants is prohibited.					
54. I recognise other researchers' intellectual properties by citing them.					
55. I cannot manipulate my data to obtain predetermined research findings.					

Appendix Two: Students' Questionnaire

This questionnaire is designed to collect data about the difficulties master two students encounter when developing their research competence. The results obtained will remain confidential and will be used only for research purposes. We realize how precious your time is. Therefore, this questionnaire should only take few minutes to complete. You are kindly asked to answer the following questions by putting a tick (√) on the appropriate box or by giving full answers in the spaces provided. We value your honest and detailed responses.

Thank you for your collaboration.

Gender…….

Age……..

Evaluate your research competence: ☐Weak ☐ Acceptable ☐Good

1. Why did you enrol in a master's degree? (you can pick more than one)

   ☐ To just seek a master degree.

   ☐ To pursue a PhD degree.

   ☐ To become a well-recognized researcher.

   ☐ To add to the existing knowledge.

   ☐ To help humanity by solving problems.

   ☐ To influence people and leave a legacy.

   ☐ To increase my chances of getting a good job.

   ☐ Others……

2. Which skills did you exactly face difficulties in?

☐Information seeking skills

☐Research methodology skills

☐Communicative skills

☐Problem-solving skills

☐Critical thinking skills

☐Academic writing skills

☐Research ethics

3. In your opinion, what was the reason behind such difficulties in developing your research competence?

……

……

4. How did you manage to overcome these difficulties?

……

What were the difficulties you faced when conducting your master dissertation?

Supervisory practices	Working in pairs	Insufficient time	High load of courses	Inaccessibility of resources

Others……

5. When conducting research, what are the steps of the research process that students find the most difficult to conduct?

   □ Defining the research problem

   □ Reviewing the literature

   □ Formulating hypotheses

   □ Preparing the research design

   □ Collecting data

   □ Analysing and interpreting data

   □ Writing the dissertation

6. Which part was the most difficult in writing your dissertation

The Title	The abstract	The introduction	The methodology	The analysis and discussion	The conclusion

Others……

7. What was most challenging for you in the research process?

   ☐ Researching

   ☐ Research writing

8. What mistakes did you make when conducting your research project so that novice researchers would avoid?

……

……

9. Were you able to consult your supervisor regularly? ☐Yes ☐No

10. Did your supervisor give meaningful feedback throughout the process? ☐Yes ☐No

11. Did you face any problems with your research partner? ☐Yes ☐No

If yes, what were they?

……

……..

12. Have you ever wanted to quit conducting your research? ☐Yes ☐No

If yes, what was the main reason?

13. How was your research journey?

الملخص

البحث خطوة أساسية في التعليم العالي للطلاب. إنها النقطة التي ينتقل فيها الطلاب إلى المستوى التالي، من أن يتم إخبارهم بما يحتاجون معرفته إلى البحث عن إجابة خاصة بهم. ومع ذلك، يواجه العديد من الطلاب صعوبات عديدة خلال عملية البحث. ولذلك، فإن الدراسة الحالية تحاول بشكل بارز التحقيق في التحديات التي تواجه طلاب الماستر عند تطوير كفاءتهم البحثية. ويعتمد هذا البحث الأسلوب الوصفي لأنه يناسب هدف الدراسة وطبيعتها. ولوضع هذه المنهجية موضع التطبيق، أستخدم الباحثون إستبيان واختبار كأدوات لتحقيق أهداف التحقيق. وفي هذا التحقيق يجري إختيار ثلاثين (٣٠) طالبا من طلبة ماستر2 في قسم الاداب واللغة الانجليزية في جامعة المسيلة عمدا كعينة تتناسب مع هذا المجال البحثي حيث يشترط عليهم إجراء البحوث وتقديم مشاريعهم البحثية في نهاية السنة الدراسية. وتبين النتائج التي تم الحصول عليها بوضوح الصعوبات التي يواجهها الطلاب أثناء عملهم البحثي. وشملت هذه التحديات المهارات البحثية غير الكافية، ونقص الموارد المتاحة، والممارسات الإشرافية، والعمل في إطار ثنائي. ومن الآن فصاعدا، ينبغي توفير الدعم الكافي من جانب المشرفين والإدارة على السواء للطلاب الذين يقومون بالبحوث.