

Exploring Students' Awareness of Research Methodology: The Case of Second Year Master Students of English at Frères Mentouri University, Constantine1, Algeria

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Abstract

From our experience as a teacher and supervisor at the Department of Letters and English, Frères Mentouri University, we have observed a general dissatisfaction on the part of teachers with second year Master students' inability to write a Master dissertation that conforms to the requirements of research methodology. Through this paper, we set out to explore students' awareness of the fundamentals of research methodology, particularly research topic selection, statement of the problem, research aims, extended literature survey, research questions, hypothesis formulation, means of research, data collection, analysis of results and ethics of research. A descriptive quantitative study has been carried out using a teachers' questionnaire as a tool for collecting data. Results have demonstrated that there is remarkable lack of awareness on the part of students of the aforementioned fundamentals of research methodology, as evidenced by most of the teachers' responses.

Keywords: Research; research methodology; fundamentals; awareness; dissertation

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Résumé

De notre expérience en tant qu'enseignante et directrice de mémoire au sein du département d'anglais à l'université Frères Mentouri, nous avons constaté une insatisfaction général de la part des enseignants quant à la connaissance de la méthodologie de recherche dont les étudiants de deuxième année de Master sont tenus de suivre dans leur mémoire. Cet article a pour but d'explorer la connaissance des étudiants des principes fondamentaux de la méthodologie de recherche, particulièrement la sélection du thème de recherche, l'énoncé du problème, les objectifs, la revue approfondie de la documentation, les questions de recherche, la formulation d'hypothèse, les moyens de recherche, la collecte de données, l'analyse des résultats et l'éthique de la recherche. Une étude quantitative descriptive a été réalisée en utilisant un questionnaire à l'intention des enseignants comme outil de collecte de données, pour explorer si ces étudiants connaissent les principes fondamentaux de la méthodologie de recherche susmentionnés.

Mots clés: Recherche; méthodologie de recherche; principes fondamentaux; connaissance; mémoire

ملخص

يُطرح تلقين منهجية البحث العلمي تحدياً صعباً لدى الأساتذة والطلبة الجامعيين على حد سواء باختلاف مجالات التدريس. من خلال تجربتنا كأستاذة ومشرفة على أطروحات الماستر بقسم الآداب واللغة الإنجليزية بجامعة الإخوة منتوري- قسنطينة¹، لاحظنا وجود حالة عدم رضا الأساتذة المشرفين على أطروحات البحث بوعي طلبة السنة الثانية ماستر بمنهجية البحث بمختلف مراحلها. يسعى هذا المقال إلى الكشف عن وعي طلبة الماستر بأساسيات منهجية البحث العلمي، وعلى وجه الخصوص انتقاء موضوع البحث، طرح الإشكالية، تحديد أهداف البحث، تحرير الجزء النظري، تحديد أسئلة البحث، صياغة الفرضية، انتقاء طرق وأدوات البحث، جمع البيانات، تحليل النتائج وكذا الالتزام بأخلاقيات البحث العلمي. وقد تم إجراء دراسة وصفية كمية باستخدام استبيان للأساتذة للكشف عما إذا كان طلبة السنة الثانية ماستر، المطلوب منهم كتابة أطروحة أكاديمية لنيل شهادة الماستر، على دراية كافية بأساسيات منهجية البحث المذكورة سابقاً. أظهرت النتائج أن هناك نقصاً ملحوظاً في الوعي بهذه الأساسيات من طرف الطلبة قيد الدراسة.

الكلمات المفتاحية: بحث؛ منهجية البحث؛ أساسيات؛ وعي؛ أطروحة

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I- Introduction

Across various disciplines, the significance of teaching and learning research methodology, along with the difficulty associated with it due to the abstract nature of this task, have been well acknowledged. Kothari (2004) notes that it is not enough for researchers to know the research methods and techniques; they equally need to be well acquainted with *how* to use research methodology in a way that serves their particular research problem. The researcher's job, Patel & Patel (2019) stress, is not restricted to developing a set of tests and figuring out how to calculate the mean, mode or standard deviation. What is of more importance is being *aware* of how to use research methodology: recognizing which of methodological aspects are relevant and which are not to the particular research being carried out.

As a teacher and supervisor of second year Master students at the Department of Letters and English, Frères Mentouri University, Constantine1, we have observed, over years, a general dissatisfaction on the part of teachers/ supervisors with second year Master students' research methodology skills exhibited in the Master dissertation they are supposed to produce for their postgraduation. This problematic situation has led us to raise the following question: Are the students under investigation aware about how to employ the fundamental aspects of research methodology required for the accomplishment of their Master dissertation? A descriptive quantitative study has been undertaken, using a teachers' questionnaire as a tool for collecting data. The ultimate aim is exploring students' awareness about how to use the fundamental aspects of research methodology, namely research topic selection, statement of the problem, research aims, extended literature survey, research questions, hypothesis formulation, means of research, data collection, analysis of results, and ethics of research.

I.1. Definitions of Key Research Terms

I.1.1. Definition of Research

Redman and Mory (1923; cited in Kothari 2004: 01) define research as a "systematized effort to gain new knowledge." It is described as a "voyage of discovery", or a "movement from the known to the unknown". In a technical academic sense, research, as Woody (1927; cited in Kothari 2004: 01) notes, involves "defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organising and evaluating data; making deductions and reaching conclusions; and at last carefully testing the conclusions to determine whether they fit the formulated hypothesis".

Kothari (2004: 01-02) puts forward various descriptions of the term *research*: "the search for knowledge through objective and systematic methods of finding solution to a problem", "the systematic approach concerning generalization and the formulation of a theory", and "the systematic method consisting of enunciating the problem, formulating a hypothesis, collecting the facts or data, analyzing the facts and reaching certain conclusions either in the form of solutions(s) towards the concerned problem or in certain generalizations for some theoretical formulation." Deshpande (2018: 14) views research as "defining and redefining problems, formulating hypotheses or possible solutions to the research problem, collecting data, organizing and evaluating it, and last, reaching to some findings or conclusions on the basis of the organization, analysis and interpretation of the data collected."

I.1.2. Definition of Methodology

Irny and Rose (2005; cited in Igwenagu 2016: 05) define *methodology* as "the systematic, theoretical analysis of the methods applied to a field of study". It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Methodology involves concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques. A methodology does not set out to provide solutions, so it is not the same as a *method*. It rather provides the theoretical framework for understanding which method, set of methods or practices could be applied to a specific case, such as calculating a specific result.

For Jonker & Pennink (2010: 17), methodology is “the way in which a researcher conducts research.” It is what has to be done given a certain attitude, context, and concept in order to achieve a specific goal or destination. A methodology indicates the main path to the destination, but without specifying the individual steps. It, therefore, helps make the main outline of the approach clear to the researcher. It functions as a compass or a set of principles and global instructions; however, this does not entail that methodology prescribes what the researcher should or should not do in a specific situation. Such details entail *research methods* and *techniques*. The way the researcher wants to fill in the approach with detailed methods and techniques is based on additional considerations. The latter depend on the researcher's basic attitude, the research question at hand and the overall methodological approach.

Methodology, Jonker & Pennink (2010) emphasize, is what has to be done given a certain attitude, context and concept in order to get to a particular destination. A methodology indicates the main path to the destination, but without specifying the individual steps or processes that the researcher goes through. Methodology, therefore, helps to clarify the main outline of the approach to the researcher. It functions as a compass or a set of principles and global instructions; however, this does not entail that methodology prescribes what the researcher should or should not do in a specific situation. Such details entail *research methods* and *techniques*. The way the researcher wants to fill in the approach with detailed methods and techniques is based on additional considerations. The latter depend on the researcher's basic attitude, the research question at hand and the overall methodological approach being put into implementation.

I.1.3. Definition of Research Methodology

Igwenagu (2016: 06) defines research methodology as “a set of systematic techniques used in research, (...) a guide to research and how it is conducted.” It describes and analyzes research methods, determines their limitations and resources and clarifies their pre-suppositions and consequences. Research methodology contributes to the:

- Advancement of wealth of human being;
- Provision of tools for carrying out the research;
- Development of a critical and scientific attitude, disciplined thinking to observations;
- Enrichment of the research process and provision of chance for in-depth study and understanding of the subject;
- Enhancement of the ability to evaluate and use research results with reasonable confidence and in decision making; and last,
- Enhancement of the ability to learn, read and think critically.

Patel & Patel (2019: 48) define research methodology as “a way to systematically solve the research problem.” It enables individuals to study the steps which are followed by a researcher in studying the research problem as well as the logic underlying such steps. In other words, they add, it is “a science of studying how research is done scientifically, (...) a way to systematically solve the research problem by logically adopting various steps” (p.48). It helps to understand both the products of scientific inquiry as well as the process itself. Among the ultimate aims of research methodology are describing and analyzing methods and techniques, throwing light on their limitations and resources, and clarifying their presuppositions and consequences.

Research methodology, Patel & Patel (2019) explain, requires more than knowing how to develop certain indices or tests, how to calculate the mean, chi-square, or how to apply particular research techniques. It is equally vital to figure out which of the methods or techniques used are relevant and which are not to the particular research question being tackled. It is also necessary to develop an understanding of the assumptions underlying the methods/ techniques employed along with the criteria by

which the researcher can decide that certain methods/ techniques can be applicable to certain problems and others cannot.

I.1.4. Definition of Research Design

The major problem that follows the task of defining the research problem is the preparation of the design of the research project, commonly known as the *research design*. A research design comprises decisions regarding such questions as *what, where, when, how much, by what means* which are relevant to an inquiry or a research study. Kothari (2004: 31) considers a research design as “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.” A research design is, thus, the conceptual structure within which research is conducted.

A research design involves the collection, measurement and analysis of data. The design includes an outline of what the researcher will do from the initial steps of writing the hypothesis and its operational implications to the final steps of analyzing and interpreting data. The following questions help make decisions on a particular research design: What is the study about? Why is the study being made? Where will the study be carried out? What type of data is required? Where can the required data be found? What periods of time will the study include? What will be the sample design? What techniques of data collection will be used? How will the data be analyzed and interpreted? (Kothari 2004).

I.2. Characteristics and Criteria of Research

From Deshpande’s (2018) point of view, research has ten outstanding characteristics:

- It is a systematic and critical investigation.
- It aims at certain discovery of new facts and their correct information.
- It can be a revision of accepted laws or theories in the light of discovery of new facts.
- It can be a practical application of new or revised conclusions, theories or laws.
- It is an objective inquiry with an open mind.
- It is directed towards a solution to a problem.
- It is a study of cause and effect.
- It follows a definite scientific method or procedure.
- It is a genuine contribution to knowledge.
- It can be a new insight that may lead to a new frame of reference.

Regardless the types of research studies, it is significant that they all meet on the common ground of the scientific method used. Scientific research has to conform to the following criteria (Fox 1958):

- The purpose of the research must be clearly defined and common concepts used.
- The research procedure employed must be described in detail to permit another researcher to repeat the research for further advancement, keeping the continuity of what has already been achieved.
- The procedural design of the research must be carefully planned to have results that are as objective as possible.
- The researcher has to report, with thorough honesty, the limitations in the procedural design and estimate their effects on the findings.
- The analysis of data must be sufficiently adequate to reveal its significance, and the methods of analysis employed must be appropriate. The validity and reliability of the data must be carefully checked.
- Conclusions must be confined to the ones justified by the data of the research, and limited to the conclusions for which the data provide an adequate basis.

- Greater confidence in research is granted if the researcher is well experienced, has integrity and a good reputation in research.

According to Kumar (2011), the research process must be controlled, rigorous, systematic, valid, verifiable, empirical and critical. Without such qualities, the process cannot be called *research*. Bellenger & Greenberg (1978) summarize the criteria of a good research in four basic points:

- *Good research is systematic*: It means that research is structured with specified steps to be taken in a specified sequence in accordance with the well-defined set of rules.
- *Good research is logical*: This implies that research is guided by the rules of logical reasoning and the logical processes of induction and deduction.
- *Good research is empirical*: It implies that research deals with concrete data that provides a basis for external validity to research results.
- *Good research is replicable*: Replicability allows research results to be verified by replicating the study, hence building a sound basis for decisions.

I.3. Types of Research

Research types could be classified on the basis of the purpose of research, the time required to accomplish it, the method/ techniques used in it, or the environment in which research is carried out. Some research types have similarities and some have variations, but all the types have their own particular significance. Kothari (2004) identifies *eight* basic types of research: descriptive vs. analytical, applied vs. fundamental, quantitative vs. qualitative and conceptual vs. empirical.

I.3.1. Descriptive vs. Analytical Research

Descriptive research comprises surveys and fact-finding enquiries of different kinds. The major purpose of descriptive research is description of the state of affairs as it exists currently. In social science and business research, the term "*Ex post facto*" research is used for descriptive research studies. The main characteristic of this research type is that the researcher does not have any control on the variables, in that s/he can only report what has happened or what is happening. The methods of research used in descriptive research are surveys of all kinds (including comparative and correlational methods). On the other hand, in *analytical research*, the researcher uses facts or information which is already available, and analyzes it to make a critical evaluation of the material at hand.

I.3.2. Applied vs. Fundamental Research

Research can either be applied (also called *action*) research or fundamental (to *basic* or *pure*) research. *Applied research* seeks to find a solution for an immediate problem facing a society, an industrial or a business organization, while *fundamental research* deals with generalizations and the formulation of a theory. Gathering knowledge for the sake of knowledge is called "*pure*" or "*basic*" research. Examples of fundamental research include research concerning natural phenomena or pure mathematics. Research studies, related to human behavior and undertaken with a view to make generalizations about human behaviour, are also examples of fundamental research. However, research seeking certain conclusions (or solutions) facing a concrete social or business problem is an example of applied research. Instances of applied research include research to identify social, economic or political trends that may affect a particular institution.

I.3.3. Quantitative vs. Qualitative Research

Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity. In contrast, *qualitative research* is concerned with qualitative phenomena, i.e. phenomena that

involve quality or kind. For example, when the researcher is interested in investigating the reasons for human behaviour (such as why people think or do certain things), s/he often talks of “*Motivation Research*”, which is an important type of qualitative research. This type of research is intended to discover the underlying motives and desires using in-depth interviews for the purpose.

I.3.4. Conceptual vs. Empirical Research

Conceptual research is concerned with abstract ideas or theory, and is generally employed by philosophers or scholars to develop new concepts or to reinterpret existing ones. *Empirical research*, on the other hand, also referred to as *experimental*, relies only on observation or experiment, usually without reference to theory. It is rather data-based research resulting in conclusions which could be verified by observation or experiment. In this research type (empirical), it is necessary to get at facts firsthand, and actively to go about doing certain things to stimulate the production of desired information. The researcher has first to formulate a working hypothesis, then work to collect enough data to confirm or disconfirm the formulated hypothesis. Subsequently, s/he has to set up (an) experimental design(s) which s/he sees will manipulate the variables (persons or materials) under study in order to bring forth the desired information. Evidence gathered through empirical studies (experiments) is considered to be the most powerful and reliable support for a given hypothesis.

The previously described types of research are not the only ones existing. Other types include *longitudinal research*, which is carried out gradually over a long period of time, *historical research*, dealing with the collection of auto-biographies, letters and documents relevant to the past, and *simulation research*, which is concerned with the creation of an artificial environment that resembles the real one (Pavan & Kulkarni 2014).

I.4. Process of Research

Kothari (2004) describes a number of steps involved in the process of research, namely formulating the research problem, extensive literature survey, developing the hypothesis, preparing the research design, determining the sample design, collecting the data, execution of the research project, analysis of data, hypothesis testing, generalizations and interpretation, and preparation of the dissertation/ project.

I.4.1. Formulating the Research Problem

There are two types of research problems, as identified by Kothari (2004): those which relate to states of nature and those which relate to relationships between variables. As an initial step, the researcher has to single out the problem to be studied. The problem can be stated in a rather general way, then the ambiguous aspects may be resolved. Miles (2016) notes that a well-written problem statement defines the problem and helps identify the variables investigated in the study. It is intended to provide the rationale for the study and uses data and research to confirm the need to address the problem in the study. Miles (2019) adds that two questions need to be considered: “Why does this topic warrant an investigation?” and “What drives the investigation?” Hernon and Schwartz (2007) assert that a statement of the problem should conform to certain criteria: clarity and precision, identification of what will be studied, identification of key factors, variables, concepts and terms, avoidance of unnecessary jargon, and conveyance of more than the mere gathering of descriptive data.

I.4.2. Extensive Literature Survey

Having formulated the problem, the researcher should produce an extensive literature survey related to the problem. In this phase, one source will lead to

another, and the earlier studies, which are similar to the study being dealt with, need to be studied and accounted for carefully (Kothari 2004).

I.4.3. Developing a Working Hypothesis

After extensive literature survey, Kothari (2004) notes, the researcher should state in clear terms the working hypothesis or hypotheses. According to Singh (2006: 54), a working hypothesis is "a tentative solution of a problem." Research activities are planned to check the hypothesis and not to find out the solution of the problem or to seek answers to the questions. Pruzan (2016: 77) points out that hypotheses deal with "how a proposition or conjecture can be formulated in such a manner that it can be tested and provide the 'raw material' for the development of theory." Kothari (2004) stresses that the hypothesis should be very specific and limited to the piece of research being dealt with for it has to be tested.

I.4.4. Preparing the Research Design

Having formulated the research problem and hypothesis, the researcher starts preparing a research design. This involves the conceptual structure within which research could be undertaken. The ultimate aim of a research design is to provide for the collection of relevant evidence with minimal expenditure of effort, time and money. Achieving this depends on the research purpose(s): exploration, description, diagnosis or experimentation (Kothari 2004).

I.4.5. Determining the Sample Design

A sample design is a definite plan, determined before any data are collected, for obtaining a sample from a given population. For example, the plan to select 12 students from a total of 200 (the population) constitutes a sample design. Some of the important sample designs include deliberate sampling, simple random sampling, systematic sampling, stratified sampling, and multi-stage sampling. The sample design to be employed has to be decided on by the researcher taking into account the nature of the investigation (Kothari 2004).

I.4.6. Collecting the Data

There are several ways of collecting the appropriate data. Primary data can be collected either through an **experiment** or a **survey**. If the researcher carries out an experiment, s/he will observe some quantitative measurements through which s/he can examine the hypothesis. However, in a survey, data can often be collected by means of:

- **Observation:** This method implies the collection of information through the researcher's own observation, without interviewing the respondents.
- **Interview:** In such a method, the researcher follows a planned procedure in seeking answers to a set of questions. These answers comprise the required data.
- **Questionnaire:** It is the most commonly used method in various domains. Questionnaires are administered to the respondents with the aim of collecting the needed data. A pilot study is recommended to find out about any weaknesses in the questionnaire (Kothari 2004).

I.4.7. Execution of the Research Project

The researcher should ensure that the research project is executed in a systematic way. If the survey is to be undertaken through structured questionnaires, data can be readily machine-processed. In this situation, questions and possible answers may be coded. If the data are to be collected by means of interviewers, arrangements may be made for proper selection and training of the interviewers (Kothari 2004).

I.4.8. Analysis of Data

Having collected data, the researcher can undertake an analysis. The latter requires a number of closely related operations such as establishment of categories, the application of these categories to raw data through coding, then drawing statistical inferences. The researcher should classify the raw data into usable categories (Kothari 2004).

I.4.9. Hypothesis Testing

After analyzing the data, the researcher is ready to test the hypothesis formulated earlier by either confirming (accepting) or disconfirming (rejecting) it. If the researcher had no hypotheses to start with, generalizations established on the basis of data may be stated as hypotheses to be tested by subsequent researches in the future (Kothari 2004).

I.4.10. Generalizations and Interpretation

If a hypothesis is tested several times, it may be turned into a generalization (a theory). If the researcher had no hypothesis to start with, s/he may explain her/his findings on the basis of a certain theory. This step is known as *interpretation*. The latter may result in new questions which, in turn, may open the door to further researches (Kothari 2004).

I.4.11. Preparation of the Dissertation/ Project

In dissertation writing, there are a number of aspects that have to be considered carefully, as outlined by Kothari (2004):

- The layout of the dissertation should be threefold: the *preliminary pages*, the *main text/ body*, and the *last part*. In its *preliminary pages*, the dissertation should display certain information, usually dictated by the affiliation, such as the title, name of the author, supervisor and academic year. Then, there should be acknowledgements, an abstract followed by lists of tables and graphs/ charts, if any, and a table of contents. *The main text/ body of the dissertation* should have the following parts: an introduction, the main body (a number of chapters) broken down into various sections and sub-sections, and last, a conclusion. *At the end of the dissertation*, a bibliography (i.e. a list of books, journals, reports, websites or any other references used in the dissertation) should be provided. Likewise, appendices should be enlisted in respect of technical data, questionnaires or tests used.
- The dissertation should be written in a concise way, using accurate academic language and style, and avoiding vague or cliché expressions.
- Charts, tables and illustrations should be used only if they present the information more clearly or concisely.
- Limitations of the research conducted should be stated.

I.5. Ethical Considerations in Research

Ethical issues constitute a significant part of conducting any research work. As stressed by Murray & Beglar (2009), the rights of the participants involved in a research study must be protected. This could be done by conferring to the guidelines for the ethical treatment of research participants that are enlisted and imposed by the university or language laboratory that the researcher belongs to. Written texts, Hacker (2009) explains, are considered as intellectual property. The author owns the language and ideas in the written material (book, paper or any other printed or electronic source). Although publishing a paper is significant, the originality and ethics of the context of the published paper is of equal significance. The most common problem in academic manuscripts is said to be *plagiarism*, as acknowledged by many scholars and researchers such as Hawley (1984), Carrol (2002), Patel et al. (2011).

There are two types of authors who may fall for plagiarism. The first type is direct plagiarism, commonly referred to as *copy-pasting*, where the author plagiarizes by duplicating another author's text, claiming that it is his/her own words or ideas. The second type involves *plagiarizing unconsciously*. There are a number of factors which may cause such problems, some of which are uncited ideas and concepts, accidental similarity, fixed definitions, cross-text plagiarism (or text recycling), and self-plagiarism (Ebrahim et al. 2014).

The philosophical and administrative basis for many existing codes of research ethics has been defined. Although such codes may somehow differ across disciplines, they all emphasize the protection of human participants and, as outlined by Marczyk et al. (2005), to ensure *autonomy*, *beneficence* and *justice*. The first principle (autonomy) dictates that individuals have the right to decide whether, and how, they want to get involved in any kind of research. The second principle (beneficence) refers to considerations made for the benefit of participants. For instance, in conducting research, the progress of science should not be put ahead of the interest or well-being of the participants. Justice, being the third principle, relates directly to the researcher's selection of research participants. This selection should be the result of fair selection procedures and should equally result in fair selection outcomes.

II– Method and Materials

Writing a Master dissertation is a process in which many challenges could be encountered at every stage of it. Second year Master students usually find themselves faced with questions such as: What topic shall I opt for? What literature should I read and select for my literature review? What steps do I have to go through in my research? What research method(s) do I need to employ? How can I go about collecting data, then analyzing it and interpreting the findings? How do I present my results and relate them to previous research? As a teacher and supervisor of second year Master students at the Department of Letters and English, Faculty of Letters and Languages, Frères Mentouri University, Constantine1, we have observed, over years, that teachers are dissatisfied with Master students' inability to write an academic Master dissertation that conforms to the fundamental requirements of research methodology. A study has been conducted in order to explore whether second year Master students, who are required to write an academic dissertation for their postgraduation, are aware about how to use the fundamental aspects of research methodology, more particularly *research topic selection*, *statement of the problem*, *research aims*, *extended literature survey*, *research questions*, *hypothesis formulation*, *means of research*, *data collection*, *analysis of results*, and *ethics of research*.

II.1. Participants

The current study is based on a random sample of 36 teachers who are also supervisors at the Department of Letters and English, Faculty of Letters and Languages, Frères Mentouri University/ Constantine 1, during the academic year 2020-2021. The teachers have supervised second year Master students of all specialties: Foreign Language Didactics, Applied Linguistics, Literature and Civilization. As regards the teachers' experience in supervision, out of the 36 teachers involved in the study, 15 (making up 41.67%) have been supervising second year Master students for more than ten years, 13 teachers (36.11%) for five to ten years, while the rest (08 teachers, representing 22.22%) have an experience which ranges between one to five years (See the Appendix: *Teachers' Questionnaire*, Section One, Q.1).

II.2. Research Method and Data Collection

In order to explore whether the students under study are aware about how to use the fundamental aspects of research methodology required for the accomplishment of their dissertation, a *descriptive quantitative* method has been opted for due to its

suitability to the nature and purpose of the present research. A survey has been used, more particularly a *teachers' questionnaire* (See the Appendix: Teachers' Questionnaire), as a tool for collecting the intended data. The questionnaire consists of twenty-nine questions presented in eight sections: Section One: General Views on Students' Research Skills, Section Two: Research Topic Selection and Statement of the Problem, Section Three: Research Aims, Section Four: Extended Literature Survey, Section Five: Research Questions and Hypothesis Formulation, Section Six: Means of Research, Data Collection and Analysis of Results, Section Seven: Ethical Considerations, and last, Section Eight: Further Suggestions. The questionnaire was administered to thirty-six teachers who are also supervisors at the aforementioned department during the academic year 2020-2021. The same number of teachers answered the questionnaire, providing the required data for analysis.

III- Results and Discussion

Through the analysis of the teachers' questionnaire feedback, we have come to the conclusion that there is remarkable lack of awareness on the part of students about how to use research methodology, more precisely research topic selection, statement of the problem, research aims, extended literature survey, research questions, hypothesis formulation, means of research, data collection, analysis of results, as well as ethics of research. Such serious lack of awareness, as evidenced by the responses of the largest proportion of the teachers involved in the study, accounts for the students' inability to write an academic Master dissertation that conforms to the fundamental requirements of research methodology, in spite of the fact that Master students are given a course on *Research Methodology Skills* in first and second year Master in order to pave the way for them and help them be acquainted with such research methodology procedures once they start their actual research work (dissertation). A more detailed discussion of the obtained results is presented in what follows.

In terms of **teachers' general views on students' research skills** (Section One in the questionnaire), almost all the teachers: 94.44% (34 out of 36 teachers) said they were "dissatisfied" with their students' ability to carry out a Master research (Q.2). Of these 34 teachers, 91.17% of them owe such dissatisfaction to the students' poor knowledge of research methodology, 82.35% to poor writing skills, 73.53% to lack of critical thinking, 55.88% to lack of motivation, and a small percentage of 20.59% to other reasons that could be summed up as follows: lack of concentration and personal factors such as seriousness, commitment, discipline, interest and punctuality (Q.3).

As regards **research topic selection and statement of the problem** (Section Two), the largest proportion of the informants, 77.78%, noted that the students are the ones who usually suggest the topic of research (Q.4). However, an almost similar proportion of the teachers (75%) declared that their students do not know how to opt for a research topic (Q.5), neither do they write a clear statement of the problem that reflects a specific situation, as revealed by 69.44% of the participants (Q.6). In addition, more than half the teachers (63.89%) stated that the extent to which the students' statement of the problem contributes to the existing body of research is "low", 30.55% said "to some extent", while only two teachers (05.56%) said to "a high extent" (Q.7). The biggest part of the participants, 72.22%, also indicated that their students do not raise a measurable problem that renders itself to investigation through data collection (Q.8).

As far as **research aims** (Section Three) are concerned, more than half the teachers noted that students are unable to state the research aim adequately, in that 58.33%, said that the aim covers other secondary aspects which are not available in the study, rather than expresses the exact intention(s) of the research study (Q.9), 63.89% revealed that the aim is not phrased in clear and concise words (Q.10), whereas 61.11% said that the aim is not realistic, and thus cannot be achieved through the sources available such as time and skills (Q.11). It has to be pointed out, however, that a good

percentage of 66.67% of the informants said that the research aim stated by their students drives the research into finding answers to the raised questions (Q.12).

Regarding **extended literature survey** (Section Four), half the participants (50%) described the students' ability to produce a concise outline with logical sequencing of sections as "poor", 41.67% as "average", whilst only 08.33% (03 teachers) as "good" (Q.13). Even more teachers, representing 69.44%, acknowledged their students' ignorance of how to select relevant materials for their extended literature survey (Q.14). Moreover, slightly more than half the informants (55.56%) depicted their students' sub-skills of paraphrasing, summarizing and quoting texts as "poor", only 44.44% as "average", while no teacher described their skills as "good" (Q.15).

Concerning **research questions and hypothesis formulation** (Section Five), a considerable proportion of the teachers, making up three quarters (75%), stated that the research questions raised by students are not specific enough to answer (Q.16). However, slightly more than the half (52.78%) confirmed that students raised questions that could be answered within the available timeframe and practical constraints (Q.17). In similar manner, 61.11% said that the raised research questions are relevant to the investigation being undertaken (Q.18). As for hypothesis formulation, the vast majority of teachers (88.89%) noted that the hypothesis formulated by students does not translate the problem statement into a precise prediction of expected outcomes (Q.19), neither is it phrased clearly, using unambiguous words, as revealed by the overwhelming majority of the informants representing 91.67% (Q.20). It is worth noting, however, that 69.44% of the teachers said that the students' formulated hypothesis states the relationship between the research variables (Q.21).

In terms of **means of research, data collection and analysis of results** (Section Six), the results have confirmed the students' unawareness of such methodological issues. The majority of the teachers, 80.56%, confirmed that their students are not aware about how to select the appropriate means of research for their particular investigation, whether descriptive, analytical, experimental or any other type (Q.22). Likewise, students are nor familiar with the procedure of collecting data for their research study, as revealed by more than half the teachers (61.11%) (Q.23), as well as the procedures of analyzing and interpreting the results of the study (77.78% of the participants) (Q.24).

In respect of **ethics of research** (Section Seven), the largest percentage of the informants, making up 69.44%, revealed that students conduct their research in accordance with the ethical principles only "to some extent", 30.56% to "a low extent", while no teacher said "to a high extent" (Q.25). In addition, the highest percentage of the informants (66.67%) noted that students cite the references they incorporate in their research "sometimes", not always, which violates the ethics of research (Q.26). It is also noteworthy that the vast majority of the participants, representing 91.67%, depicted students' overall way of citing references (whether in-text citation or the list of references at the end of the work) as "inaccurate" (Q.27). Furthermore, only quarter the participants (25%) declared that the students cite the references used in their research work "consistently," following a particular set of conventions (APA or MLA style), whereas three quarters of the teachers (75%) noted that students cite references "inconsistently," mixing up the conventions of the two styles (Q.28). Again, this confirms the students' remarkable lack of awareness of the ethical principles of research although they are given a course on *Ethics of Research* in the first semester to aid them in their first steps in research.

Finally, the last section (*Further Suggestions: Q29*) was intended to provide an opportunity for teachers to add any further comments or suggestions on the current issue. However, no suggestions were made.

IV- Conclusion

The analysis of the teachers' questionnaire feedback has revealed that second year Master students are unaware about how to deal with the fundamental aspects of research methodology, more precisely research topic selection, statement of the problem, research aims, extended literature survey, research questions, hypothesis formulation, means of research, data collection, analysis of results, as well as ethics of research. Writing a Master dissertation, however, is an academic task that requires of students adequate awareness about how to deal with the aforementioned fundamental aspects of research methodology when investigating a particular research problem.

In the light of the obtained findings, it is recommended to assign more proper attention to the teaching and learning of *Research Methodology Skills* by focusing more on *practices* in an attempt to simulate the practical steps or processes which students will find themselves going through once they set foot on the actual field of research. Future studies involving larger samples may get deeper insights into second year Master students' awareness of research methodology. Furthermore, replicating this investigation by other researchers, in the future, may also help obtain more reliable results that can account for the current problematic situation: students' inability to produce a Master dissertation that conforms to the fundamental requirements of research methodology.

Appendix:

Teachers' Questionnaire

Dear teacher,

The present questionnaire is part of a research study. It aims at exploring your supervised second year Master students' awareness about using research methodology for the completion of their postgraduate dissertation.

Please, tick (✓) the appropriate answer(s), and write (a) full statement(s) whenever necessary.

Thank you in advance for your precious time and cooperation!

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Section One: General Views on Students' Research Skills

1. How long have you been supervising second year Master students?
..... years

2. What is your general impression about your supervised students' ability to carry out a research work?

- a. Satisfied
b. Dissatisfied

3. If you opt for "b", is it due to students':

- a. Lack of motivation?
b. Poor knowledge of research methodology?
c. Poor writing skills?
d. Lack of critical thinking?
e. Other: Please, specify!

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Section Two: Research Topic Selection and Statement of the Problem

4. Who usually suggests the topic of research?

- a. You
b. The students

5. Do your students know how to opt for a research topic?

- Yes
- No

6. Do they write a clear statement of the problem that reflects a specific situation?

- Yes
- No

7. To what extent is their statement significant to contribute to the existing body of research?

- a. To a high extent
b. To some extent
c. To a low extent

8. Do your students raise a measurable problem that renders itself to investigation through data collection?

- Yes
- No

Section Three: Research Aims

9. When the students write the aim of their research work, does it:

- a. Express the exact intention(s) of the research study?
b. Cover other secondary aspects which are not available in the study?

10. Is the aim phrased in clear and concise words?

- Yes
- No

11. Is the aim realistic, and thus can be achieved through the sources available such as time and skills?

- Yes
- No

12. Does the aim drive the research into finding answers to the questions?

- Yes
- No

Section Four: Extended Literature Survey

13. How would you describe your students' ability to produce a concise outline for their literature survey, with logical sequencing of sections?

- a. Good
b. Average
c. Poor

14. Do they know how to select relevant material for their literature survey?

- Yes
- No

15. How would you describe their sub-skills of paraphrasing, summarizing and quoting texts?

- a. Good
- b. Average
- c. Poor

Section Five: Research Questions and Hypothesis Formulation

16. Are the research questions raised by your students specific enough to answer?

- Yes
- No

17. Do your students raise questions that could be answered within the available timeframe and practical constraints?

- Yes
- No

18. Are the raised questions relevant to the investigation being undertaken?

- Yes
- No

19. Does the research hypothesis formulated by your students translate the problem statement into a precise prediction of expected outcomes?

- Yes
- No

20. Do your students phrase the hypothesis clearly, using unambiguous words?

- Yes
- No

21. Does their hypothesis state the relationship between the research variables?

- Yes
- No

Section Six: Means of Research, Data Collection and Analysis of Results

22. Are your supervised students aware about how to select the appropriate means of research for their particular investigation (whether descriptive, analytical, experimental or any other type)?

- Yes
- No

23. To what extent are they familiar with the procedure of collecting data for their research study?

- a. To a high extent
- b. To some extent
- c. Not familiar

24. To what extent are they familiar with the procedures of analyzing and interpreting the results of the research study?

- a. To a high extent
- b. To some extent
- c. Not familiar

Section Seven: Ethical Considerations

25. To what extent do your students conduct their research in accordance with the ethical principles of research?

- a. To a high extent
- b. To some extent
- c. To a low extent

26. Do they cite the references which they incorporate in their research?

- a. Always
- b. Often
- c. Sometimes
- d. Rarely
- e. Never

27. How would you depict your students' overall way of citing references, whether in-text citation or the list of references at the end of the work?

- a. Accurate
- b. Inaccurate

28. Do they cite the references used in their research work:

- a. Consistently, following a particular set of conventions (APA or MLA style)?
- b. Inconsistently, mixing up the conventions of the two styles?

Section Eight: Further Suggestions

29. Please, add any further suggestions or comments on the current topic.

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