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Title:

Difficulties Facing Beginner Researchers in Conducting Scientific Research

The Case of Master classes of Mohamed Khider University-Biskra

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Dissertation Submitted to the Department of English language and Literature as a Partial Fulfillment of the Requirements for the Master Degree in Sciences of the language

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Dedication

I dedicate this work

To the kind heart that always cared for me, supported me, and believed in me when I doubted myself: **My beautiful mother.**

To the strong hand that guided me, protected me, and taught me the meaning of courage **My beloved father.**

To the souls who laughed with me and stood by me through challenges, my brothers: **Mohammed Fadi, Abd Errahman, Mouaatez Billah.**

To the warm soul whose love was pure, and whose presence brought comfort and peace **Ma Zohra.**

To my late grandmother, whose love and kindness will always live in my heart: **Jida Ourida.**

To the sister my mother didn't give birth to, to my safe place whose never let me feel alone **Aicha.**

To all my friends, whose stood by me through ups and downs, and made the hard days feel lighter **Olaa, Abir, Chahinaz, Imen, Rahma, Messouada, Ferdaoues, Chahra, Amira.**

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Abstract

Scientific research plays a vital role in developing knowledge and solving real-world problems. However, many beginner researchers struggle to conduct research effectively, particularly in research methodology. This study aimed to explore the main difficulties that students face in conducting scientific research in MA classes at Mohamed Khider University of Biskra. It was a mixed-method study, which used two research tools, a questionnaire administered to students and an interview for teachers. According to the findings of this research we suggested that the difficulties beginner researchers faced when conducting scientific research were derived from the lack of awareness, lack of research methodology training, and lack of relevant and credible sources. In addition to the poor academic writing, and the limited guidance and clear support from supervisors that can affect the quality of research, managing time effectively can be challenging for students due to their lack of mastery of research skills. The outcomes of this research suggested various strategies that both students and teachers can rely on to help learners overcome these difficulties and improve the quality of the scientific research.

Keywords: Scientific research, beginner researchers, research methodology, MA classes.

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General introduction

Scientific research plays a significant role in higher education, and is considered one of the most important stages in the success of students, as it contributes to the generation of new knowledge and progress in various fields. It requires a combination of skills that the student should know and be able to use, as they are the main factor in research. The research methodology is the scientific process, approaches, and methods of conducting research in gathering, analyzing, and interpreting data. It involves the overall framework that guides the researcher in choosing the methods and tools for researching to be reliable and valid. For students, especially Master students conducting research involves overcoming many challenges, as it requires a high level of understanding and applying the methodology clearly and correctly, since it is the basic element in preparing scientific research. Moreover beyond these technical aspects, scientific research fosters intellectual growth by encouraging curiosity, perseverance, and a disciplined approach to inquiry. It enables students to develop a systematic mindset that is valuable in addressing complex questions and real-world problems.

Statement of the problem

Conducting scientific research presents a crucial and challenging step in the academic journey of any researcher. Especially for MA students, who are required to produce good, precise, and valid research as a key requirement for graduation. Research is not only an academic requirement, but also a reflection of their abilities and contributes to their field of study. At Biskra University MA students are expected to produce a research that is methodological precise, and academically valid. However, many beginner researchers face numerous difficulties when it comes to conducting a scientific research such as understanding and applying research methodology effectively. Therefore, these difficulties constitute a barrier to the academic achievement of MA classes and the academic success. Thus, it is essential to explore and understand these difficulties in order to provide better guidance that can help them achieve academic success.

Objectives of the study

The study seeks to achieve the following objectives:

- To explore the common difficulties face beginner researchers in conducting a scientific research at Biskra University.

•To explore the strategies Supervisor use to address students difficulties in conducting a scientific research.

• To understand how this difficulties affect the quality of their research.

Research Questions

This research aims to answer the following questions:

1. What are the main difficulties face beginner researchers in conducting a scientific research at Biskra University?

2. What strategies do supervisors use to address the main difficulties candidates face in conducting their scientific research?

3. What is the supervisor's attitude toward the difficulties facing beginner researchers in conducting a scientific research?

Significance of the study

The study shed light on the difficulties beginner researchers, especially Master students facing in conducting a scientific research. It aims to address the main challenges that candidates face and the strategies used by supervisors, and provide the appropriate suggestions to improve scientific research. By identifying these difficulties, the study provides insights that can help universities, supervisors, and academic institutions better support beginner researchers along their academic journey. Additionally, it seeks to make the research easier for students and enhance its quality.

Methodology

The study follows a mixed-method research, combining both qualitative and quantitative approaches to gain a comprehensive understanding of the difficulties beginner researchers face in conducting scientific research.. The sample used includes students and teachers from the Department of English at Biskra University 48 students were selected randomly from Master classes, and four teachers of research methodology. The study will be conducted through a questionnaire for students and an interview for teachers which will be beneficial due to their experience. Thus, enhance the validity of the findings.

Structure of the study

This research is divided into two main chapters. The first chapter includes a literature review, and the second chapter contains the discussion of the results. The literature review includes a description of research skills, their concepts, elements, and importance in EFL classes. However, the second chapter is devoted to the results and their discussion in which the research is conducted.

Chapter one

Literature review

Introduction

Regardless of the difficulties the researcher faces during the research journey, any scientific research requires knowledge and specific skills to obtain satisfactory results that benefit the learner. “The skills that students acquire during their academic years play an important role in their future success” (Muqaibel, 2020, 2:55). Research skills play an essential role in systematically gathering, analyzing, and interpreting information effectively. They include identifying valid sources, critically evaluating and selecting good methodologies. Developing these competencies is very important for producing valid and impactful results in any field of study, which includes various key steps to present findings. Strong research skills help in enhancing critical thinking, which is crucial in conducting research. This chapter explores notions relevant to research and presents a description of research skills, their features and concepts related to them.

I. Research Skills

I.1. Definition of research skills

Research skills are one of the most important elements in conducting any scientific research, clearly and effectively. According to Walliman (2017), research skills encompass the ability to identify, locate, evaluate, and use information correctly for a certain reason, which includes understanding different research methodologies, analysing sources critically, and presenting results precisely. Moreover, research skills help to find answers to questions and solve problems, they involve gathering information, reviewing it, and understanding it to support a solution. (Birt, 2024).

Booth et al. (2008) defined research skills as the act of asking questions, collecting hard evidence and presenting findings logically. They enable individuals to get important information about the research and develop it to draw coherent findings. In addition to that, “research skills typically include a broad set of abilities that enable researchers to systematically interpret and communicate research findings”. (Paperpal, 2024.para:1). In different terms, these definitions present that research skills are essential for gathering and presenting information, and also for developing critical and independent academic work.

Furthermore, research skills are a set of abilities and competencies that help individuals to investigate information to conduct ethical and valid research. Research skills are not restricted only to academia, but they are also critical in industries such as business, healthcare, and social sciences. These fields rely on evidence-based decision-making (Saunders et al., 2019).In addition to that, research skills involve teaching, practising, and performing actions to establish facts; these skills also help postulate ideas, test ideas, collect data, and analyze data to conclude (Laidlaw et al, 2012, as cited in Vieno et al, 2022). This means that it contributes greatly to solving problems, critical thinking, and accurately presenting ideas to get precise and appropriate conclusions.

I.2. Importance of Research Skills

Research skills are very important and essential in academic, professional, and personal settings. "Research skills allow you to find information and use it effectively. They include creating a strategy to gather facts and reach conclusions so that you can answer a question". (University of Southampton, 2024. para.1). Since research skills require researchers to think critically, analyze information, to develop appropriate solutions, Facione (2020) believed that critical thinking is an essential element of research, as it demands analyzing, questioning, evaluating, and drawing logical conclusions. Simply meaning that research skills are not limited to gathering and analyzing information, but also for developing a deeper understanding of complex issues.

In addition to that, research skills help in getting a deep understanding of the subject. (Immerse Education, 2024).Moreover, research skills are not linked only to academia but also to personal and professional competencies. According to Creswell (2014), research competence is a key component of success in academic and professional contexts. That means that they have a great and effective impact in developing various skills in different fields, especially in academia to obtain valid and clear research.

Furthermore, research skills have an essential role in exploration, fostering innovation and creativity in many fields; they help in enhancing research productivity and facilitating evidence-based decision-making (Sakkeer, 2023). Moreover, research skills help in enhancing research productivity. Sakkeer (2023) argued that "proficient research skills streamline the research process, enabling researchers to work more efficiently and produce higher quality outputs" (p.57). These argue that research skills play a key role across various fields. Their importance is not limited to academic settings but also extends

to different real-life situations, as they help and support learners to enhance their capacities. In other words, research skills have become more significant in learners' lives.

I.3. Essential Research Skills

To conduct any scientific research, it is important to know and follow certain essential research skills that help the researcher to develop precise, appropriate, and well-organised research. These skills can be summarised in the following points.

I.3.1. Critical Thinking

Critical thinking is the capacity to analyze, evaluate, and interpret information to conclude. According to Facione (1990), "critical thinking is purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference" (p.2).Moreover, Paul and Elder (2006) believed that, critical thinking is a process that helps and seeks to improve thinking. Furthermore, critical thinking is the capacity to think logically and combine information in the right way (Immerse Education, 2024). These emphasize the importance of critical thinking as a research skill in making objective decisions in research.

Since critical thinking is concerned an important element in the learners' research process, Wallace and Wray (2011) argued that critical thinking play an essential role in the research process since it helps researchers to evaluate and make decisions. This confirms that critical thinking is a fundamental component in academic research, which enables learners to get a deeper analysis and interpretation along the research process.

I.3.2. Information Literacy

Information literacy is one of the essential research skills, which means the ability to locate and use information effectively and ethically. Eisenberg and Berkowitz (1990) suggested that information literacy requires the capacity to know when information is needed and the ability to evaluate, locate, and use it effectively. In addition to that, information literacy is to access and use information from several sources (Bruce, 1997). Hence, according to Walraven et al. (2008) information literacy is the ability to solve problems in many different fields. This evidence indicates that information literacy means finding information, understanding it, and using it correctly in different situations

In academic research, the ability to find, evaluate, and use information is very significant. According to The Association of College and Research Libraries (ACRL) (2000) information literacy is a crucial skill, enabling individuals to locate and apply information effectively. In other words, we can say that information literacy helps in conducting a high-quality research since evaluating and using information influences the validity of findings.

I.3.3. Time Management

Time management is the capacity to plan and organize time successfully to complete research and achieve good results. Macan et al. (1990) stated that time management needs to set goals, give priority, and monitor the achievement of goals. “Good time management skills can help you find the time to do all you need to do” (Immerse Education, 2024, para.23). Hence, time management is considered one of the important research skills, as it contributes to dividing and organizing time effectively.

Managing time effectively allows individuals to have control over their lives (Tracy n.d.). By managing time correctly learners can focus and pay attention to different stages of their life, because managing time is not only about being well organized but also facilitates the research process and reduces stress. Ultimately, these different perspectives emphasized that time management is a key research skill that combines planning, effective time use, and focus on completing research successfully.

I.3.4. Problem-solving

Problem solving is considered a cognitive process that needs the understanding of the problem, and looking back to evaluate the solution (Polya, 1945).It is the ability to find solutions easily to certain problem after a deep understanding. Moreover, we can classify it as the act of solving problems based on a specific goal. Problem-solving can be viewed as a process of deep understanding and finding effective solutions.

In addition to that, Birt (2024) stated that, “problem-solving skills involve the ability to break a problem down into its parts, think critically about each element, analyze the information you find and use that information to form an effective solution” (para.7). This emphasize that problem-solving is a crucial skill due to the problems that can happen in any stage of research, being able to find solutions to those problems is very important, and that’s what problem-solving skill offers.

I.3.5. Critical evaluation of sources

Source evaluation is a very crucial skill that demands the credibility, reliability, and accuracy of information sources. Any research needs valid and appropriate sources that fit its requirements. According to Booth et al. (2008), evaluating sources involves verifying their relevance to the research, as well as finding information. Sources used in the research show its importance, thus it is preferable to rely on credible sources. Furthermore, evaluating sources means checking if the information you read and use in your research is trustworthy and reliable (Purdue University, n.d.).

Therefore, to write any research, the researchers should rely on credible sources that affect the quality of their research positively. One of the important steps in conducting research is to evaluate the credibility of sources (Cornell University Library, n.d.). Ultimately, we discuss the importance of source evaluation by considering both their credibility and relevance, since these factors affect the quality of the scientific research.

I.3.6. Note-taking

Note-taking is considered as one of the most important skills. It is the act of recording information obtained from different lectures, readings, and discussions (Mosleh & Baba, 2013). Since remembering much information is not possible, using note taking it easier to retrieve the important information in certain situations and when it is necessary. Carrier et al. (1988) stated that, writing important information is universally an important skill for success. In other words, note-taking plays a key role in supporting and improving learners' information recall.

Furthermore, note-taking is an essential skill that supports effective learning. Bean (2011) suggested that taking notes play a key role in learning and memory, since it makes information easier to recall. It can be concluded that note-taking is considered as a beneficial strategy for improving learners' understanding and retention of information during the research process due to its importance as a research skill.

I.3.7. Academic Writing

One of the four skills in English is writing. In Academic writing, the writer uses precise words to attract the reader and convey the message (Read, 2019).Since the writer does not have any contact with the reader, they should choose their words, phrases, and

information accurately in the research. Furthermore, Wilson (2022) stated that "Academic writing is fundamentally analytical" (p.3).This indicates that it is searching for truth relevant to the research and presents it clearly and academically.

Moreover, academic writing is a crucial part of research. According to Murray (2011) Academic writing plays an essential role in the researcher's development since it is a means of communication and enables learners to clarify their thinking. Enhancing academic writing is very significant for learners to be successful researchers; in other way academic writing is one of the skills that helps to get a well-formed and organized research.

I.3.8. Attention to detail

Attention to detail is very crucial to avoid mistakes (Stevenor et al., 2022).It involves a focus on every aspect and detail at every stage of the research. Immerse Education (2024) suggested that, attention to detail is the ability to pay attention, accuracy, and focus on all aspects in the research, even the small ones to reduce errors. It is an essential skill that helps individuals in their production of research. From these perspectives, we argued that attention to detail is a crucial factor in improving the quality and accuracy of the research. In addition to that it allows the identification of errors and referencing, contributing to the overall reliability of the findings.

I.4. Research methods

Any research is based on three main methods, which are summarized in the points below.

I.4.1. Quantitative research

Quantitative research method deals with the use and work with numerical data. They refer to the empirical research or skills using statistics to gather, evaluate, and analyze information (Pomona College, n.d.). Hence, quantitative skills enable the researcher to use mathematical, statistical, and empirical data to draw conclude since it focuses on numerical data that allows researchers to analyse data and information effectively (Immerse education, 2024). Moreover, Rana et al., (2021) stated that "quantitative method is the collection and analysis of numerical data to answer scientific

research questions" (p.1). Based on those definitions, we confirmed that the quantitative research method is an essential tool to provide measurable insights.

Quantitative method enables researchers to get a deep understanding and find solutions to different problems by using numbers. According to Creswell (2014) quantitative method is the act of gathering numerical data and analyzing it using statistical techniques. This method is beneficial since it deals with numbers, and it provides clear results that are easy to understand. Therefore, many students choose it for their work.

I.4.2. Qualitative research method

The qualitative research method is one of the important methods since it helps the learners in their research. According to Immerse Education (2024), qualitative skills or methods deal with the ability to collect and analyze non-numeric data, such as documents and images. In addition to that, qualitative research focuses more on using words and descriptions instead of numbers when gathering and analyzing data (Bryman, 2008, as cited in Hammersley, 2013). They are the opposite of quantitative methods since they refer to interpreting, evaluating, and analyzing non-numerical data without relying and using statics.

Moreover, qualitative research method focuses on understanding the meaning to describe a problem (Creswell, 2014). Each research method has its features that makes it different from the others. Compared to the quantitative research, qualitative research deals with exploring and understanding the meaning rather than relying on numbers, but each of them has its importance in scientific research.

I.4.3. Mixed-method research

Any research to be completed needs the use of one of the research methods, and mixed-method research is one of those methods. Mixed-method research is based on the combination of qualitative and quantitative research methods in one study or several related studies (McLeod, 2024).According to Hafsa (2019) mixed-methods research combines both qualitative and quantitative approaches in a single study, using data from both to get a fuller understanding of the topic. Hence, Johnson et al. (2007) believed that, "Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches" (p.123). Since this research method merges qualitative and quantitative methods, it allows

the use of numerical and non-numerical data at the same time. By comparing the different views of the previous scholars, we argued that mixed-method research can be the combination of qualitative and quantitative research methods in one study or many studies.

Mixed-method research is an important approach that helps researchers to understand different complex issues. Creswell (2014) suggested that mixed-method research requires collecting both quantitative and qualitative data by using specific designs. Researchers need to be well-prepared when they choose this method because it is the combination of two methods, which makes it more difficult and complex. Therefore, it can be considered as the complex method compared to the other methods.

I.5. Types of research skills

Research skills are divided into sub-skills and categorized, then the most common and important types are the following:

I.5.1. Analytical skills

Analytical skills are the capacity of individuals to find problems and draw the right solutions; they focus on problem-solving skills (CFI Team, n.d.). Moreover, they deal with the analysis and evaluation of data to get reasonable solutions that fit and help in research. Therefore, Sakkeer (2023) stated that analytical skills "are abilities to critically evaluate information, identify patterns, detect biases, and synthesize complex ideas" (p.57). Based on the definitions and the explanations, it is evident that analytical skills are essential for identifying problems, evaluating data, and drawing appropriate conclusions.

Ultimately, analytical skills are the problem-solving skills that enable researchers to analyze data and information to enhance creative logical solutions (C. T. Bauer College of Business, 2022). Analytical skills are crucial for success and solving problems; developing those skills should be a part of education. We conclude by saying that analytical skills combine all the research skills, and it particularly focuses on problem-solving skills.

I.5.2. Information Retrieval skills

Information retrieval skills are significant for locating, evaluating, and using data from different sources. Sakkeer (2023) highlighted that information retrieval skills are the skills of searching for and retrieving information from multiple sources efficiently; these sources include libraries, databases, and archives. Furthermore, Fordjouretal (2010, as

cited in Uwhejewe, 2022) stated that, “information retrieval skills are defined as the ability and competence to find information in such a way that non-relevant data are excluded while relevant information is found” (p.7). Hence, many scholars agreed on the importance of those skills, as Manning et al. (2008) believed that information retrieval skills are the process of obtaining information from various sources to meet a specific need. Using these skills in the right way enables researchers to conduct correct and effective research, and ensuring that they can access accurate and reliable information to support their work.

I.5.3. Writing skills

Writing is one of the four skills which enables learners to have concise and coherent writing in the field. Writing skills are related to the ability to formulate a concise, organized, and well-structured research paper or document (Sakkeer, 2023). They are important especially in the academic field since any research is based on writing. According to Ghosh et al. (2021), writing skill is the individual’s competence to show their ideas in written form. Furthermore, writing skills help learners express their thoughts clearly, fluently, and creatively; these skills make them more independent and enable them to organize their ideas in a meaningful way (Sim, 2010).

Hence, writing skills are crucial for success in the academic and workplace, they enable individuals to communicate and share and express their ideas (Graham & Perin, 2007). Since writing is one of the four skills in English, this makes writing skills are very important, as previous scholars confirm. Researchers need to be more aware of the significance of writing and empowered of it.

I.5.4. Communication skills

Another type of research skills is communication skills. Communication skills are defined as “the abilities you use when giving and receiving different kinds of information” (Raju& Swamy, n.d, p.1).Moreover, communication is a broad concept that includes setting clear goals, having a clear plan, being open and honest, engaging with others, persuading people, negotiating, sharing opinions, and expressing ideas, it is about sharing and exchanging information (Int@E, 2020). Hence, communication skills are a very crucial aspect in any research (Immerse Education, 2024). Accordingly, communication skills are the ability to clearly express research results through writing, presentations, or visuals (Sakker, 2023). Ultimately that indicates the importance of communication skills in

the field of academic research and many fields; thus, communication skills are needed in all aspects of research.

Quianthy (1990) discusses the significance of communication skills for both academic career and professional success. Communication skills are important since they enable researchers to overcome some challenges during their life, also clear and effective communication is essential for presenting the right ideas. At the end, we confirm that improving those skills is fundamental for success in academic research and different fields.

I.5.5. Technical skills

Technical skills are the skills and knowledge needed to do certain tasks and use specific tools or programs in real-life situations (Coursera Staff, 2025). Furthermore, according to Sakkeer (2023), technical skills are the ability to use research tools and technologies, like statistical software, reference management systems, or lab equipment. Since these skills deal with technologies and programs, they are essential in academia and research. In addition to that, they can complete tasks skillfully and also review them independently and thoughtfully (Mohd Fouzi, 2000, as cited in Nasir et al., 2011).

Strong technical skills are important for the success of beginner researchers. These skills help them to overcome many methodological challenges since they focuses on the statistical and technological issues more than other skills. In addition to that, technical skills are not limited to conducting research but also for developing methodologies. McGill (2015) emphasised that having strong technical skills is essential, because they help individuals think creatively, and solve problems effectively in various fields.

I.5.6. Presentation skills

Representation skills are very crucial skills in research. Coursera Staff (2025) believed that, presentation skills are the competencies and qualities need to create and give strong presentations that clearly share information and ideas. In addition to that they are skills that focus on oral presentation as Sakkeer (2023) stated that presentation skills “are skills for effectively communicating research findings to diverse audiences through oral presentations, posters, or multimedia formats” (p.57). Simply means that presentation skills deals with presenting information and ideas related to research orally.

Moreover, according to the name presentation skills, it suggests that they focus on speaking and presenting. Reynolds (2011) suggested that presentation skills enable individuals to express their ideas freely. Based on previous scholars' different views, presentation skills have a great importance in learners' lives; they are not just about speaking, but are essential for building and increasing learners' speaking confidence and abilities.

I.6. Applications of research skills

Since research skills are very important they are used in several fields, bellow are some key applications of research skills:

I.6.1. Academic research

Research skills are used extensively in the field of academic research, especially in writing research papers, collecting information, conducting studies, and presenting findings. According to Immerse Education (2024), research skills are crucial in the academic field since they evaluate information and enable the researcher to get a deep understanding. Moreover, they help in investigating, interpreting, and analyzing information correctly. These skills require individuals to be able to know when they need information and to find, assess, evaluate, and use it properly (ALA, 2000, as cited in Topalov & Bojanic, 2013).

The need for research skills in the field of academic research is still ongoing, because of their crucial role. Research skills are very essential in academic work, as they provide researchers with the ability to collect, assess, and evaluate information effectively for producing credible studies (Corttrell, 2013). Developing those skills correctly allow researchers to conduct a well-organised and high-quality academic work.

I.6.2. Science and technology

Research skills play an essential role in the field of science and technology. According to Sheorain (2023), research helps in improving new technologies and solutions to innovations, since without research skills, the progress achieved now cannot be achieved by researchers in the field of technology. In addition to that, research drives technological progress, leading to innovations, while transforming industries such as healthcare,

transportation and communication (Atienza, 2023). Since research helps in multiple fields, research skills have a great place in these fields and their development.

Ultimately, research skills are significant in the science and technology field, they enable the exploration of questions, testing hypotheses, and creating new knowledge, which leads to innovation and technological development (Hofmann, 2019). Since researchers need research skills to obtain new information, develop knowledge, and investigate, we believe that they are essential in that field, Also we confirmed that science and technology still need research skills to be improved in the right way.

I.6.3. Medicine

Another field where research skills are used is Medicine. "Research skills are required in all branches of medicine" (Laidlaw et al., 2012, as cited in Watson & Burr, 2018, p.1).Furthermore, doctors still need to understand and think critically about the vast amount of information available; they might also need to conduct their research at some point, in addition to help patients with the good treatment at the right time (Watson & Burr, 2018).

Furthermore, the field of medicine is crucial in the individuals' lives, thus the focus on developing their research skills when they come to this field. Greenhalgh (2014) believed that developing research skills in medicine helps in applying evidence-based approaches and making the right decisions based on relevant scientific evidence. The development of research skills in this field leads to effective results, and finding appropriate solutions for some health problems, thus saving the lives of individuals.

I.6.4. Business

Research skills focused on business tasks and using proven knowledge to achieve practical results while also improving the company (Hamburg, 2019). Moreover, according to Toivola (2023), research skills help professionals to collect and assess reliable information, enabling informed decision-making and reducing errors for greater success especially in their field of work. These address the importance of research skills in the field of business.

The business field requires individuals to enhance their research skills due to their importance to success. Research skills are essential for making different business

decisions, identifying market opportunities, reducing risks, and understanding the business process (Zikmund et al. 2013). Improving research skills affects the decisions made in business positively, compared to other fields we confirm that the need for research skills is endless due to their importance.

I.7. Ways to improve research skills

Any researcher should improve their research skills because of their importance in conducting any scientific research; here are some ways to improve those skills.

I.7.1. Develop a clear research plan

Any research needs a plan to follow it in writing. "Before starting to write, the researcher must develop a complete plan and draw the structure of the research" (Tahan, 2022, p.3). Thus, the plan of the research should be clear and understandable to be followed in the right way and produce coherent research. Moreover, for practice-based research to be successful, the researcher needs to develop and follow a well-organised research plan (Weber & Cobaugh, 2008). Therefore, a clear and precise research plan enables researchers to enhance their capacities and research skills effectively.

In addition to that, a clear and well-structured research plan provides an overview of the study, helps researchers to focus and organize ideas with the research objectives (Creswell, 2014). This highlights that developing a clear research plan is not only important for guiding the study but also for identify the limitations and ensure coherence. We can say that developing a clear research plan have become an essential step to improve research skills.

I.7.2. Improving information literacy

One of the most important ways to improve research skills is enhancing information literacy. According to Griesbaum et al. (2021) improving information literacy is related to the content and places of learning; typical places, since it is considered one of the crucial skills, developing it accurately and effectively helps in improving the researcher's research skills. Hence, the improvement of information literacy is an essential aspect in research.

Moreover, Maybee (2006) stated that information literacy develops the quality of research by enabling individuals to evaluate and use information effectively. In other

words, improving learners' information literacy is fundamental in developing their research skills, because they will become more confident and independent researchers, and produce a coherent and well-supported academic work.

I.7.3. Improve academic writing

Writing is one of the four skills in English; since it is essential in research it should be improved. To improve writing, the researcher should make reading as a priority (Coursera Staff, 2024). Because reading is one of the aspects that can develop writing effectively. Madjid et al. (2017) asserted that writing is essential for students, for clearly conveying information and ideas; they claimed that is not just linking words and sentences. Thus, the improvement of academic writing is related to reading; hence, enhancing academic writing is important to improve research skills in the right way.

According to Zinsser (2013) writing is a means of exploring, understanding, and mastering a subject, it allows individuals to make its own by mastering the materials more effectively. In the academic research, writing play a crucial role in organizing thoughts and enhancing the clarity of the research process, that's what makes the improvement of academic writing an essential way to develop researchers' research skills.

I.7.4. Learning from mistakes

Another way to improve research skills is by learning from mistakes. Muliyah et al. (2020) stated that, "making mistakes is accepted as a vital and valuable portion in language learning since it permits learners to try with language and degree their mastery in writing composition" (p.46). When making mistakes, the researcher learns from them and does not repeat them, and this facilitates the process of developing research skills. According to Mishra (2012) mistakes can be avoided after doing them, since avoiding mistakes is related to doing them to be learned.

Furthermore, we understand that without making mistakes, we cannot learn since mistakes help learners to avoid what is wrong, as McWilliams (1997) emphasised that mistakes are essential for the improvement of different skills, also they provide us with what need to be developed. While mistakes are a fundamental part of the learning process, the learning from these mistakes plays a critical role in enhancing research skills and encourages the academic development. In conclusion, we cannot stop mistakes immediately but we can learn from them.

I.7.5. Improve critical reading

Since reading is one of the four skills in English, it is very important. Critical reading involves analyzing and evaluating a text by examining its content, structure, and context (Browning, 2018, as cited in Niculescu & Dragomir, 2023). According to Esleem (2012, as cited in Dorra, 2020) critical reading is an advanced reading skill that helps readers fully understand, analyze, and evaluate a text. It is very important and should be practised. Since critical reading is an essential skill, it should be enhanced to improve research skills effectively.

In addition to that, strong critical reading skills enhance researchers' ability to evaluate, recognize the strengths and weaknesses of the existing studies, and identifies what requires investigation (Researcher.Life, 2022). This highlights the importance of critical reading and its contribution to research development, because improving research skills increase the quality of research.

I.7.6. Master research methodologies

Any researcher should be aware of the research methodology of their field. Since research methodology is the core of any research, Ghamandi & Kokane (n.d) stated that, "familiarize yourself with different research methodologies relevant to your field, whether its qualitative, quantitative or mixed methods research, realizing the strengths and limitations of each approach is crucial" (para.22). In addition to that, mastering research methodology is very significant as it improve the quality of research and making the finding more correct and effective, it helps in verify the results and facilitate the replication and comparison (Khan et al., 2023).

Moreover, research methodology plays a key role in the development of research skills, according to its importance. Creswell (2014) explained that the choice of research methodology based on the researchers experiences and the audience of the study. In other words, we can confirm that mastering various research methodologies enables researchers to improve their overall research skills, thus leading to the improvement of the quality of research, and this is what is important in the researchers' research process and career.

Conclusion

This chapter explored the essential research skills necessary in conducting any scientific research. It discussed its different aspects such as the definition of the term research skills and the different essential research skills. These skills include critical thinking, information literacy, problem-solving and others. Furthermore, the chapter contains many titles about research skills such as the applications of those skills, their importance in different fields, their types, and the different ways to improve those skills. Mastering these skills helps researchers to locate reliable sources, analyze information correctly, and interpret findings effectively. The main aim of this chapter is to raise awareness of the importance of research skills in the researchers' journey, especially in conducting any scientific research or study.

Chapter Two

Results and discussion

Introduction

This chapter presents the practical part of the study, exploring the difficulties facing beginner researchers in conducting scientific research, especially in methodology, to answer the main questions of the research. It includes the research methodology, simple, and the tools used for the data collection. In addition to that, the data collection tools used to answer the previous questions are: a questionnaire for MA classes and an interview for the English teachers at Mohamed Khider University-Biskra. The purpose of the students' questionnaire is to know the most common difficulties and challenges that affect the quality of their research; however, the teachers' interview focuses on discovering their opinions, attitudes, and solutions to overcome those difficulties.

II.1. Research methodology

This study aims to explore the difficulties beginner researchers face in conducting a scientific research. A mixed-method approach was adopted to reach the goal. Since it focuses on understanding and exploring individuals' experiences and challenges in depth. Creswell (2014) stated that, "Mixed-method research is an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data" (p.4). This approach helps to give deep, detailed, and useful data related to the study. It also adopted to provide a comprehensive understanding of the issue through both qualitative and quantitative data.

II.1.1. Questionnaire

A questionnaire is one of the data collection tools or methods that are used to collect information. In addition to that, a questionnaire is a research method including a list of questions that are used to gather a large amount of helpful information from respondents (Petrat, 2022). Since it helps to collect a large number of answers, it is the most used method in many studies. Moreover, according to Creswell (2012) questionnaire is a "form used in a survey design that participants in a study complete and return to the researcher" (p.382).

II.1.2. Interview

Another data collection tool is the interview, which is a qualitative method that helps to get detailed answers and information about the study. Hence, Crewsell(2012) believed that a qualitative interview is when the researcher asks participants in general and records their answers. Therefore, the interview is a method of asking questions to gather information and to collect both qualitative and quantitative data (Taherdoost, 2021, as cited in Taherdoost, 2022). Ultimately, the interview plays a crucial role in obtaining information and is considered one of the most important tools.

II.1.3. Sample

The sample of the study is the case of MA classes at Biskra University. Forty-eight (48) students were selected randomly from the total population. The choice of this sample was because of their experience since they studied research methodology before and they have conducted several research projects in different modules along their academic journey. In addition to four teachers of research methodology from the Department of English at Biskra University, due to their experiences in teaching and supervising. Therefore, they will provide beneficial insights concerning the research topic.

II.1.4. Research tools

II.1.4.1. Description of the students' questionnaire

The questionnaire is designed for students to gather a large amount of information concerning the difficulties facing beginner researchers in conducting scientific research. The questionnaire is semi-structured and includes both open-ended and closed-ended questions; it contains four sections. The first section is about general information, which includes three questions. It also provides details about the sample. The second section contains six questions as the lengthiest section, focusing on the general difficulties facing researchers in conducting their research, especially in methodology. Moreover, the third section contains three questions about their opinions toward the supervision, guidance, and support. Ultimately, the last section is about students' general and final thoughts to give their ideas freely, it consists of two open-ended questions.

II.1.4.2 Description of the teachers' interview

This interview is directed to the teachers who have taught the course of research methodology before, and they have experience with the supervision of students to explore their attitudes and insights toward the difficulties facing beginner researchers in methodology. Furthermore, structured interview includes both closed-ended and open-ended questions. The interview contained eight questions; the first two questions were about their background and experience in supervision and teaching research methodology. Moreover, the third and fourth questions focus on identifying the most common difficulties and the underlying causes of those difficulties, the fifth question focuses on the effectiveness of the research methodology syllabus. As for the two following questions, shift the focus on the supervisor's strategies and roles that helps students overcome those difficulties. Finally, the last question seeks the recommendations to improve the research training provided to MA classes.

II.2. Research result and analysis

This section presents the results obtained from the questionnaire and the interview with their analysis that is important for our research.

II.2.1. Analysis of the Questionnaire results

Section one: General information.

1: The academic level.

Academic level	Respondents	Percentages
Master one	9	18.8%
Master two	39	81.2%
Total	48	100%

Table 01: Students' academic level

According to the previous table, the majority of the sample are master tow students with percentage of 81.2%, however master one respondents presents 18.8%. The result shows that master two participants are more than master one participants.

2: The field of study.

The field	**Respondents**	**Percentage**
Science of languages	45	93.8%
Civilization and literature	3	6.3%
Total	48	100%

Table 02: Students' field of study

The table shows that the most of the sample are in the field of science of languages with percentage of 93.8%, while only 6.3% study civilization and literature.

3: Experience in conducting a research study.

Conducting a research	**Respondents**	**Percentage**
Yes	33	68.8%
No	15	31.3%
Total	48	100%

Table 03: Conducting a research study.

In this question the results indicate that 68.8% of students have conducted a research before, however 31.3% of the sample they did not. This result proves that the majority of the sample has an idea about research and how to conduct it.

Section two: Difficulties in conducting a research.

4: The most difficult aspect of research.

The aspect of research	**Respondents**	**Percentage**
Selecting an appropriate topic	7	14,6%
Writing a clear research problem	12	25%
Conducting a literature review	16	33.3%
Choosing the right research methodology	3	6,25%
Citing and referencing correctly	7	14,6%
Lack of supervisor guidance	3	6,25%
Total	48	100%

Table 04: The aspects of research

Based on table 04, the results show that 33.3% of respondents claimed that conducting a literature review is the most difficult aspect of research, while 25% agreed on writing a clear research problem as one of the difficult aspects. However, selecting an appropriate topic and citing and referencing correctly had the same percentage with 14.6%, choosing the right research methodology and lack of supervisor guidance are the less difficult both with 6.25%. These findings indicate that students face a big problem when they come to conduct their literature review, since they also find difficulties with citing and referencing.

5: The most difficult research methodology type.

Research methodology	**Respondents**	**Percentage**
Qualitative research	9	18.8%
Quantitative research	17	35.4%
Mixed-method research	22	45.8%
Total	48	100%

Table 05: Research methodology types

According to the results in the previous table, 45.8% of correspondents find the mixed method research the most challenging research, 35.4% of them find difficulties with the quantitative research, while the less difficult research was the qualitative research only 18.8% of respondents. These results present that the mixed-method research is more difficult for students since it combines both qualitative and quantitative research.

6: Confidence in selecting the appropriate methodology.

Level of confidence in selecting the appropriate methodology	**Respondents**	**Percentage**
Very confident	6	12.5%
Somewhat confident	21	43.8%
Neutral	14	29.2%
Somewhat unconfident	6	12.5%
Very unconfident	1	2%
Total	48	100%

Table 06: Students' level of confidence

The table above showed that, 43.8% of students are somewhat confident, 29.2% of them are neutral, 12.5% were very confident and the same percentage for somewhat unconfident, only 2% were very unconfident. These findings prove that the majority of students are somewhat confident when they select the appropriate methodology.

7: Main difficulties in conducting a literature review.

Main difficulties	**Respondents**	**Percentage**
Finding relevant and credible sources	16	33.3%
Understanding and summarizing papers	12	25%
Identifying research gaps	6	12.5%
Organizing literature thematically	4	8.4%
Writing a coherent literature review	10	20.8%
Total	48	100%

Table 07: Difficulties in conducting a literature review

The table indicates that, the most difficult in conducting a literature review is finding credible and relevant sources 33.3%, 25% of students mentioned that they find difficulties in understanding and summarizing research papers, 20.8% agreed on writing a coherent literature review, 12.5% of them said identifying research gaps, while only 8.4% said organizing literature review thematically. This proves that students find difficulties to find relevant and credible sources because of the lack of ability of source evaluation skill.

8: The main difficulties in collecting data.

Main difficulties	**Respondents**	**Percentage**
Designing appropriate research instruments	17	35.4%
Finding participants for the study	22	45.8%
Gaining permission from institutions or authorities	00	00%
Managing ethical considerations	2	4.2%
Handling technical issues	7	14.6%
Total	48	100%

Table 08: Collecting data difficulties

According to the table 08 above, 45.8% mentioned finding participants for the study, 35.4% said that designing appropriate research instruments is difficult, 14.6% answered by handling technical issues, only 4.2% answered by managing ethical considerations, whereas, 00% responded gaining permission from institutions or authorities. These findings present that finding participants is the most difficult in collecting data because of the unavailability of participants; or they do not accept to be as a case study.

9: The main difficulties in analyzing data.

The main difficulties	**Respondents**	**Percentage**
Understanding statistical tools	22	45.8%
Using qualitative analysis methods	15	31.2%

Interpreting research findings correctly	3	6.3%
Presenting data effectively in the dissertation	8	16.7%
Total	48	100%

Table 09: Analyzing data difficulties

The previous table showed that, 45,8% find understanding statistical tools most difficult, 31.2% of the students said using qualitative analysis methods, 16.7% of them agreed on presenting data effectively in the dissertation, only 6.3% of the students chose interpreting research findings correctly. This indicates that understanding statistical tools is the main difficult data analysis, since they have difficulties in understanding the mixed-method research as Q5 indicates, and the statistical tools are used in the mixed-method research.

Section three: Supervision and Institutional Support.

10: The rating of the support provided by the Supervisor.

The level of support	**Respondents**	**Percentage**
Very supportive	8	16.7%
Somewhat supportive	16	33.3%
Neutral	14	29.2%
Not very supportive	7	14.6%
Not supportive at all	3	6.3%
Total	48	100%

Table 10: Supervisor's Support

The results from the table below indicate that, 33.3% of students answered with somewhat supportive, 29.2% were neutral, 16.7% of them said that supervisors are very supportive, 14.6% chose not very supportive, whereas only 6,3% answered with not supportive at all. These findings prove that students need more support and guidance from their supervisors.

11: The challenges faced in receiving supervision.

The challenges	Respondents	Percentage
Lack of availability of the supervisor	8	16.7%
Lack of clear guidance	15	31.3%
Difficulties in communication	12	25%
Limited feedback on my work	10	20.8%
Supervisor's lack of expertise in my research area	3	6,2%
Total	48	100%

Table 11: Supervision challenges

As the Table 11 showed, 31.3% of respondents said that they had a lack of clear guidance, 25%answered by difficulties in communication, 20.8% chose limited feedback on their work, and 16.7% of them answered a lack of availability of the supervisor. Therefore, the rest 6.2 % of students said the lack of supervisors' expertise in their research area. According to the previous results students need clear guidance and communication with supervisors.

12: University research training and workshops.

Choices	Respondents	Percentage
Yes, and they are helpful	7	14.6%
Yes, but they are not very useful	5	10.4%
No, but I think they should	21	43.8%
I am not aware of any training opportunities	15	31.3%
Total	48	100%

Table 12: University workshops and training.

The table above indicates that, the majority of students answered with no, but I think they should with percentage of 43.8%, 31.1% of students said Iam not aware of any training, 14.6% of students chose yes and they are helpful, only 10.4% of them answered with yes

but they are not very useful. Ultimately, these findings present that students need more training and workshops and they need to be aware of them to improve their research skills.

Section four: Final thoughts.

13: The biggest difficulties facing beginner researchers in conducting a scientific study.

The answers to this question reveal that the majority of students identify that the biggest difficulty faced by beginner researchers is the lack of reliable sources and relevant information. While others mentioned that they suffer in selecting an appropriate research methodology because of a lack of practice. Additionally, many students found that studying research methodology theoretically instead of the practical experience was challenging. Moreover, some of the respondents highlighted that the lack of training in statistical tools and difficulties in finding participants complicate the research process. These findings prove that students suffer from many difficulties in their academic journey especially concerning research methodology.

14: The kind of support and training is needed to overcome these difficulties.

According to the students' answers, many students suggest that research methodology training and writing workshops are highly recommended. In addition to that others emphasize the need to learn research methodology practically rather than theoretically. Furthermore, clear guidance and support from supervisors can help them in selecting the appropriate topic, another issue is learning how to use data analysis tools. Ultimately, the results indicate that providing better support and guidance from supervisors, better training including workshops, and easier access to resources could help in enhancing students' research skills and overcoming many difficulties.

II.2.2. Analysis of interview results

This section presents the analysis of the teachers' interview, the aim was to gather more and deeper information about the topic, and understand the teachers' insights and experiences.

Question 01: How long have you been teaching research methodology?

Teacher 01: I have been teaching research methodology around the end of the 20^{th} century and the beginning of the 21^{st} century.

Teacher 02: I have been teaching research methodology for 5 years.

Teacher 03: I have been teaching research methodology for 8 years.

Teacher 04: I have been teaching this course since 2013.

According to the answers, teachers have different levels of experience in teaching research methodology; two teachers have more than 10 years, while the others have less than 10 years of experience. These findings present that all of those teachers have experience in teaching research methodology course; this confirms that they are familiar with the course and its challenges.

Question 02: How long have you been supervising students in scientific research?

Teacher 01: I have been supervising students around 2010.

Teacher 02: since 2015.

Teacher 03: I have been supervising students for 10 years.

Teacher 04: since 2012.

According to the answers above, all teachers have more than 10 years in supervising students. That indicates that they are experts in supervision.

Question 03: Based on your experience, what are the most common difficulties that beginner researchers face when conducting scientific research?

Teacher 01: Defining a research question, methodology, literature reviews writing and communication, finding resources, and data collection and analysis.

Teacher 02: They lack mastery of academic writing and research methodology.

Teacher 03: Students' lack of awareness that they are student researchers, they just study for examinations and grades.

Teacher 04: difficulties in the choice of the topic, in revising an adequate research question and hypothesis, difficulties with writing in addition to the coherence.

The majority of teachers agreed that writing and research methodology are some of the most difficult aspects that beginner researchers face, while their answers differed in some

points. Some of them added a defining research question and hypothesis, as well as the lack of awareness, because students' study only for grades. According to their answers, we notice that beginner researchers suffer from many and various difficulties when they come to conduct their research.

Question 04: What do you think are the main reasons behind these difficulties?

Teacher 01: The lack of experience, skill development, resource constraints, and time pressure.

Teacher 02: I think the lack of practice, lack of reading, lack of feedback on the supervisors' behalf, students' unwillingness to get involved in research and improve their research skills.

Teacher 03: Because they do not behave as researchers they only behave as simple students.

Teacher 04: first, big number of students gets access to master degree, many students do not attend the courses, and another reason is a lack of training in writing.

All teachers give various answers, mainly the lack of practice, the lack of experience, the lack of writing training, the large number of students, lack of awareness, and the lack of supervisors' feedback. We notice that there are different reasons behind these difficulties.

Question 05: Do you believe that the syllabus of research methodology is effective and fit in preparing students for their research?

Teacher 01: Yes, it is effective.

Teacher 02: Yes, I do believe in that. The problem lies in student's negative attitudes towards research in general.

Teacher 03: overall, yes.

Teacher 04: Yes, is effective.

All teachers mentioned that the syllabus of research methodology is effective in preparing students research. These results prove that this is a positive point that helps students in conducting their research.

Question 06: What are strategies do you use to help students overcome these difficulties as a supervisor?

Teacher 01:tailor the support to the individual's needs, help students develop effective time management strategies, provide constructive and actionable feedback on their work, encouragement and motivation, and regular meeting to discuss progress and address any issues.

Teacher 02: As a supervisor, I provide feedback, I explain all needed details or problems, we discuss, when they understand I ask them to correct. So, I assume that they manage to learn the needed research skills.

Teacher 03: To raise their awareness that they are researchers. Second, follow the basic research rules to develop their research skills.

Teacher 04: As a supervisor, I call my students to discuss different matters; I also provide them with tips in writing in general. I try to put them at ease.

The supervisors use various strategies to support their students. They focus on helping them develop research skills, providing clear feedback, encouragement and motivation which play a great role in their research process. In addition to the regular meetings to discuss different problems, and raise students' awareness. All of these strategies can help students in conducting their research and overcoming the difficulties they face.

Question 07: What role do you think supervisors should play in supporting students through the research process?

Teacher 01: Supervisors play a pivotal role in guiding and supporting student through the research process. Some the key roles are, mentor and advisor they should provide expert advice and guidance, supervisors they should help students develop essential research skills, in addition to the resource facilitator.

Teacher 02: I think they should provide feedback, arrange meetings for discussion and explanation. Supervisors can be facilitators and supporters for their candidates.

Teacher 03: The teacher should provide them with the necessary knowledge. The supervisor is a guide who helps and assists students.

Teacher 04: They guide them, and they try to help them through discussions or workshops.

The teachers agreed on the point that, supervisors are supporters and facilitators and their main role is to guide students through their research process. Since supervisors play an essential role in students' research process, their clear guidance can help students and support them to conduct an effective and correct research.

Question 08: What recommendations would you give to improve the research training provided to master candidates for the graduation final phase?

Teacher 01: To enhance research training for master candidates, offer workshops focused on advanced research skills, offer writing support services to improve writing skills, offer career development including workshops and interview preparation, implement a structured system for providing regular feedback and evaluation, and encourage practical research projects.

Teacher 02: I would like to invite students to be more serious. For teachers, I call them to provide practice on every single step so that students understand well how things are done.

Teacher 03: I invite students to work hard do practice. They have to be patient, get in touch with people who are knowledgeable about doing research.

Teacher 04: Organizing a lot of workshops, and limiting the number of students get access to master's degree.

Based on the teachers' answers, they mentioned that students should have more practice, training, and workshops to improve different research skills. Furthermore, they invite students to work hard and be more serious concerning their studies. However, one teacher has suggested the limitation of the number of students since it is one of the problems. Therefore, all these recommendations are very crucial to improve students' research training.

II.3. Discussion of the results

The questionnaire results showed that the majority of beginner researchers at Biskra University struggle with finding credible and relevant sources for their study. In addition to that, some of them found difficulties in understanding and applying research

methodology, using statistical tools, and selecting the appropriate topic. Furthermore, they indicated that they need more training and workshops to improve their skills, and they suggested studying research methodology practically rather than theoretically since it is very crucial to conduct their research and to overcome many challenges that they face along their research process.

The results obtained from the teacher's interview provided a deeper understanding of the difficulties faced by beginner researchers. The majority of teachers indicated that students struggle with choosing the right research methodology due to the lack of training and practical application, and the lack of writing training, since writing is an essential skill. Moreover, they suggested some strategies that they use to help students overcome these difficulties, such as giving clear feedback, raising their awareness, and providing more support and encouragement. Furthermore, teachers mentioned that supervisors play an essential role in guiding and supporting students along their research process. Finally, they proposed organizing workshops, encouraging students and raising their awareness to take research more seriously.

When analyzed the data obtained from the questionnaire and the interview indicated that many students struggle with research methodology because they have not received enough training. In addition to that, they suffer from finding reliable and credible sources that will help their research due to a lack of research techniques. Another main difficulty is writing because of the lack of organizing ideas and following the academic rules. Moreover, time management is considered one of the difficulties since students find it challenging to balance their academic and personal life. Ultimately, the lack of clear guidance from supervisors, that makes students confused and unable to work comfortably. These difficulties show that students need more help and training to succeed in their research.

Supervisors at Biskra University have almost the same attitude toward the difficulties facing beginner researchers in conducting scientific research. They realise that these difficulties can make the research process challenging; hence, they try to give clear guidance, beneficial resources, and regular and clear feedback to improve students' research skills. Additionally, they understand that the majority of students suffer with research methodology, academic writing, and time management, so they give more support

and motivation when needed. Finally, these positive attitudes play a crucial role in enhancing students' confidence and research skills.

According to the results obtained from the interview, supervisors use various strategies to help beginner researchers overcome difficulties in conducting scientific research. They give a clear explanation and guidance concerning the research methods and studies. Furthermore, they schedule frequent meetings to give regular feedback concerning their work, also to discuss important points, and suggest some effective ways to improve writing and research skills. Another strategy is helping students to manage their time; they try to raise their awareness concerning the importance of research. Ultimately, they give them more support and encouragement to help them in different ways to make the research process easier.

II.4. Limitations

This study has some limitations that can affect the findings. The availability of participants, some students do not agree to be a part of the research, which may limit the different perspectives, opinions, and the accuracy of the data collected. In addition to the busy schedules of teachers, which made it difficult to have interviews with them to get detailed information and insights, this may affect the findings of the study.

Conclusion

In conclusion, this chapter was about the analysis of the findings; it provides a deep understanding of the difficulties facing beginner researchers in conducting scientific research. It explores the main difficulties, strategies used to overcome those difficulties, and the role of supervisors in the students' research process. The students' questionnaire indicated that students struggle with different difficulties, and they need more training and support. Furthermore, teachers' interviews showed that they are aware of these difficulties and they try to help students overcome them by using several strategies, encouragement, and clear guidance and support.

Recommendations

According to the results obtained, it is essential to provide some recommendations that are beneficial for students and teachers.

- The university should provide more methodology training, such as workshops, to help students in understand research methodology.

- Supervisors may organize regular meetings and give clear guidance and support which help students along their research process.

- The university should offer more access to many resources, teachers should also provide students with different tips and techniques to facilitate the process of finding credible and relevant sources.

- Students may benefit from the research methodology syllabus when they study it practically rather than theoretically.

- Universities should limit the number of students who get access to master's degree based on the supervisor's availability, these ensure that each student receives clear guidance and regular feedback from supervisors, and this may affect the quality of research.

- Students should be aware of the importance of research in their academic journey, since they are beginner researchers.

General Conclusion

This research was based on exploring the difficulties facing beginner researchers in conducting scientific research. The purpose of the research is to explore the main difficulties that beginner researchers face, especially in methodology, as well as the different strategies and methods used by teachers to overcome these difficulties and enhance the quality of research. To answer our questions, we conducted a questionnaire for Master students and an interview for teachers at the Department of English at Biskra University.

Our research is divided into two parts; theoretical and practical. The first part focused on the research skills and their main concepts. We presented an overview of research skills by identifying different definitions; in addition to that, we discussed some aspects, importance, and the essential research skills for students. Furthermore, we identified the different applications of research skills in various fields. It emphasized the essential role of those skills; also it focused on understanding research methodology. This chapter indicated the main concepts beginner researchers need and helped them to explore the difficulties and challenges they face.

However, the second part focused on the analysis and the interpretation of the research tools, students' questionnaire and teachers' interview, which are provided to MA students and teachers of English at Mohamed Khider University of Biskra. This chapter confirmed that beginner researchers suffer from many difficulties when they come to conduct their research and the understanding of these difficulties by learners and teachers improve the quality of research and supporting the academic development.

This study reveals many results concerning the difficulties facing beginner researchers. These difficulties can be the students' lack of awareness, difficulties in understanding research methodology and applying it, the lack of finding credible and relevant sources for the research, the lack of supervision and guidance, unclear feedback, and managing their time correctly. Among these, the findings indicate that the most prominent difficulties are the lack of access to credible sources and the inadequate understanding of research methodology. Hence, these results suggest that current trainin programs may not provide sufficient practical support in research methodology, leading to

confusing and lack of confidence among beginner researchers. These difficulties can be decreased by using different strategies or methods, such as providing more training and workshops, raising students' awareness, supervisors should give more support, guidance, and clear feedback, and limiting the number of students who get access to a Master's degree.

Based on the findings of this research, it highlights the academic difficulties face beginner researchers when conducting scientific research. It emphasizes the need for institutional reform in research training. Future research is recommended to expand beyond cross-cultural studies using broader samples. Additionally, exploring the role of digital tools, and structured training and workshops can improve the research quality and outcomes.

In conclusion, this study sheds light on students' difficulties and teachers' attitudes and strategies regarding these difficulties and their attempts to overcome them, to conduct a clear and coherent scientific research. Ultimately, we can say that this research succeeded in helping us to answer our research questions, also emphasized the importance of providing clear guidance to beginner researchers to improve their overall research experience.

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Appendix

Students' Questionnaire

Dear students

This questionnaire aims to collect data and information on the challenges beginner researchers face in conducting their scientific research. You are kindly asked to provide truthful answers for the following questions. Your response will remain confidential.

Section one: General Information

1- What is your academic level?

B-Master one student ☐

C-Master two student ☐

2- What is your field of study?

A- Science of languages ☐

B- Civilization and literature ☐

3-Have you ever conducted a research study before?

Yes ☐ No ☐

Section two: Difficulties in conducting a research

4-Which of the following aspects of research do you find most difficult?

A-Selecting an appropriate topic ☐

B-Writing a clear research problem ☐

C-Conducting a literature review ☐

D-Choosing the right research methodology ☐

E-Citing and referencing correctly ☐

F- Lack of supervisor guidance ☐

5-What type of research methodology do you find most difficult to understand?

A-Qualitative research ☐

B-Quantitative research ☐

C-Mixed-method research ☐

6-How confident do you feel about selecting the appropriate methodology for your research?

A-Very confident ☐

B-Somewhat confident ☐

C-Neutral ☐

D-somewhat unconfident ☐

E-Very unconfident ☐

7-What are the main difficulties you face in conducting a literature review?

A- Finding relevant and credible sources ☐

B-Understanding and summarizing research papers☐

C-Identifying research gaps☐

D-Organizing literature thematically☐

E-Writing a coherent literature review☐

8. What are the main difficulties you face in collecting data?

A- Designing appropriate research instruments (e.g., questionnaire, interview guide)☐

B- Finding participants for the study ☐

C- Gaining permission from institutions or authorities ☐

D- Managing ethical considerations ☐

E- Handling technical issues (e.g., survey platforms, recording interviews)☐

9. What are the main difficulties you face in analyzing data?

A-Understanding statistical tools (SPSS, Excel, etc) ☐

B-Using qualitative analysis methods (thematic analysis, coding) ☐

C-Interpreting research findings correctly ☐

D-Presenting data effectively in the dissertation ☐

Section three: Supervision and Institutional Support

10. How would you rate the support provided by your research supervisor?

A-Very supportive ☐

B-Somewhat supportive ☐

C-Neutral ☐

D-Not very supportive ☐

E-Not supportive at all ☐

11. What challenges do you face in receiving supervision?

A-Lack of the availability of the supervisor☐

B-Lack of clear guidance ☐

C-Difficulties in communication☐

D-Limited feedback on my work☐

E-Supervisor's lack of expertise in my research area ☐

12. Does your university provide research training or workshops?

A-Yes and they are helpful ☐

B-Yes, but they are not very helpful ☐

C-No, but I think they should ☐

D-I am not aware of any training opportunities ☐

Section four: Open-Ended Questions

13. In your opinion, what are the biggest difficulties beginner researchers faces in conducting a scientific study?

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14. What kind of support or training would help you overcome these difficulties?

Teachers' Interview

The purpose of this interview is to explore the difficulties beginner researchers face when conducting their research. Your insight as a teacher will help us better understand these challenges and suggest possible solutions. I would sincerely appreciate your participation in this interview; your responses will remain confidential and will only be used for academic purposes.

Questions:

1-How long have you been teaching research methodology?

2- How long have you supervising students in scientific research?

3-Based on your experience, what are the most common difficulties that beginner researchers face when conducting scientific research?

4-What do you think are the main reasons behind these difficulties?

5-Do you believe that the syllabus of research methodology is effective and fit in preparing students for their research?

6-What strategies do you use to help students overcome these difficulties as a supervisor?

7-What role do you think supervisors should play in supporting students through the research process?

8-What recommendations would you give to improve the research training provided to master candidates for the graduation final phase?

ملخص

يعد البحث العلمي أحد أهم الركائز في المسار الدراسي، غير أن العديد من الطلبة يواجهون صعوبات كثيرة فيما يتعلق بمراحل انجازهم لأبحاثهم. يهدف هذا البحث إلى استكشاف أهم الصعوبات التي يواجهها الطلبة بالإضافة إلى أهم الاستراتيجيات المتبعة من طرف الأساتذة للتقليل من هذه الصعوبات وتحسين جودة البحث. ولتحقيق هذا الهدف تم إتباع منهجية وصفية نوعية، حيث تم إجراء استبيان لعينة مكونة من 48 طالبا من طلبة الماستر بجامعة محمد خيضر بسكرة، وتم إجراء مقابلة مع أربعة أساتذة يدرسون اللغة الانجليزية في نفس الجامعة. بعد تحليل النتائج المحصل عليها، تبين أن أبرز الصعوبات التي يعاني منها الطلبة هي ضعف التكوين في المنهجية، صعوبة اختيار الموضوع، صعوبة إيجاد مراجع للبحث، ونقص التوجيه والمساعدة من طرف المشرفين. كما كشفت النتائج بعض الاستراتيجيات المعتمدة من طرف الأساتذة والتي منها رفع مستوى الوعي للطلاب، عقد لقاءات متكررة ومنظمة لمناقشة أهم النقاط المتعلقة ببحثهم، بالإضافة إلى تقديم إرشادات وتوصيات بما فيها الدعم المعنوي. بناءا على هذه النتائج تم تقديم توصيات لمساعدة المعلمين والطلاب للحد من هذه الصعوبات، التغلب عليها، وتحسين جودة البحث العلمي.

الكلمات المفتاحية : البحث العلمي، طلبة الماستر، مهارات البحث، الصعوبات.