

EFL Doctoral Students' Dilemmas in University

Scientific Research

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Abstract:

Scientific Research is a must at the university level, especially for doctoral students who are considered to be novice in research and might encounter dilemmas of various sources and types. The present study tries to identify the major dilemmas Algerian doctoral students- particularly English as a Foreign Language (EFL) face when they investigate in scientific research and that impede them from carrying-out research regularly and continuously. The study also aims at illuminating doctoral students' attitudes towards scientific research in order to disclose practical solutions that might help them investigate in research more smoothly, comfortably and confidently. Therefore and in an attempt to achieve the threefold objectives of this study: 1) identifying main dilemmas, 2) detecting attitudes and 3) figuring-out solution to mitigate the flaws, a small scale case study was carried out with six EFL doctoral students at Tlemcen university (Department of English) from different specialties (Didactics, Language Studies, Literature) using an interview for data collection procedure. Results of the study were analyzed and the obtained findings were interpreted and discussed separately. The outcomes of the study revealed that EFL university doctoral students are challenged by many dilemmas that can be categorized as personal, pedagogical and ethical and that their negative attitudes towards these impediments stand as a strong barrier and a source of anxiety to handle scientific research effectively.

Keywords: EFL; Doctoral Students; Dilemmas; University; Scientific Research.

Introduction:

At the University level doctoral students are required to do scientific research through the realization of practical research works and a doctorate thesis which is an investigation in specific problematic related to their studied speciality. Those students are, indeed, supposed to be pre-service teachers and might be integrated in university teaching. Their serious engagement in any scientific research activity is assumed not to be an easy task due to many dilemmas that may cause pressure on the part of students and make of this engagement a heavy burden and a tedious activity. In accordance with what have been mentioned, this study addresses two main research questions:

1. What are EFL doctoral students' attitudes toward scientific research?
2. What are the types of scientific research dilemmas encountered by EFL doctoral students?

In an attempt to answer these research questions, we hypothesized that:

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1. Stress, anxiety and reluctance to conduct research resulted from research dilemmas are the main causes of EFL doctoral students' negative attitudes toward scientific research at university.
2. Personal, pedagogical and ethical dilemmas may be the main types of dilemmas faced by EFL doctoral students. Moral values, psychological variables and research skills may be the sources of these dilemmas.

1- Review of The Related Literature

1-1 Scientific Research Activity in Higher Education

Scientific research at the university is a direct contribution to the development of human life in all its aspects: education, society, politics, economy, arts...etc. It is thanks to scientific research that new knowledge are applied to serve the betterment of human life and to guarantee human survival. Scientific research is defined by Da Silva (2022, p.2) as:

the process of investigating natural phenomena using the scientific method for the purpose of discovering new facts and developing scientific theory...Scientific research also aims at the review of facts, laws and theories in view of newly discovered facts, and the practical applications of such facts, laws and theories. Therefore, scientific research is the continuous search for knowledge and understanding of reality carried out through the scientific method. Its result is scientific knowledge.

In other words, scientific research refers to rigorous studies and empirical investigations meant to benefit humanity in general and science in particular. Nonetheless research is important to advancing society, strengthening the economy, driving innovation, and addressing the vexing and challenging problems we face as a people, place and planet. It is through research, scholarship, and discovery that we learn about our history and ourselves, understand the present context in which we live, and plan for and secure our future.¹

Scientific research activity is a process that involves a set of logically correlated, sequential and complementary stages, these are: topic selection and identification of the research problem, research questions and research hypotheses formulation, literature review, the construction of the research plan and the specification of the research methodology, data collection procedures, research instrumentations, research analysis, interpretation and discussion, recommendations and conclusions, dissemination of the research findings to serve future research. All these stages make the framework of academic research and the exclusion of one stage or another might impact results' credibility and reliability. It is worth reminding that though they are equally important the efforts, cost and time that these steps involve vary from one research to another.

Scientific research is a crucial component of university success for both graduation and post-graduation. University students from different levels and specialities invest in academic research as part of their university studies. These investigations require hard work, autonomy and devotion because it is a real responsibility. Conducting scientific research activity stimulate the university researcher research skills mainly critical thinking, flexibility, analytical competence, using gathered information, summarizing results, writing detailed reports, narrowing the scope of research, presenting and illustrating research findings...etc.

It is widely acknowledged that politics, economics and science are the three driving forces that rule the world today². Thus, it becomes urgent for universities as vibrant and inspiring settings to promote, encourage and support scientific research universally by providing necessary conditions that might sustain research activity among university teachers and students. This is mainly because active involvement in scientific research activity may be influenced by a number of factors such as: "strategy and methods of the

study process organization, students' motivation, lecturers' active position and a desire to cooperate with students, material base and conditions for the organization of scientific research activity" (Lamauskas et al, 2015, p.138).

Unquestionably, scientific research is the outcome of theory and practice as it is concerned with building theories from abstract concepts then testing these concepts with the main goal of building better theories that serve various disciplines. Therefore, "both theory and observations are essential components of scientific research. For instance, relying solely on observations for making inferences and ignoring theory is not considered valid scientific research" (Bhattacharjee, 2023, p.13).

In the same respect, research can be either *inductive* or *deductive* or what is also known by *theory-building* research and *theory-testing* research (ibid). Classifications of scientific researchers can be made based on different parameters as put forward by Çaparlar and Donmez (2016, pp.212-213) and presented in the table below:

| Parameters | Classifications of Scientific Research |
|---|--|
| Data collection techniques | <ul style="list-style-type: none"> • Observational • Experimental |
| Causality relationships | <ul style="list-style-type: none"> • Descriptive • Analytical |
| Relationships with time | <ul style="list-style-type: none"> • Retrospective • Prospective • Cross-sectional |
| The medium through which they are applied | <ul style="list-style-type: none"> • Clinical • Laboratory • Social descriptive research |
| Descriptive features | <ul style="list-style-type: none"> • Case series • Surveillance studies |
| Analytical features | <ul style="list-style-type: none"> • Observational studies: cohort, case control and cross –sectional research • Interventional research: quasi-experimental and clinical research |

Table (1): Classifications of Scientific Research

University is an ideal place to exercise all the already mentioned research types, however within each type some inevitable dilemmas are expected. Thus, the real challenge in scientific research is to face these dilemmas, understand them, and continue to investigate in research.

1-2 Types of Dilemmas in Scientific Research

Dilemmas in research are the main difficulties a researcher face during the different phases of the research activity. Dilemmas, controversies, oppositions and biases are inevitable in all research disciplines and scholarship. Thought they may vary in types and complexity they put the researcher in a position of confusion to take a choice between what is wrong and what is not. Dilemmas in research are indispensable as they make science more thinkable and researchers more curious to reveal new insights about new knowledge.

In fact, the quality of scientific research is an indicator of the scientific improvement and professional qualification of teachers-researchers. EFL doctoral students are beginner-teachers researchers who should conduct scientific research activity in their area of study (specialty) as an obligatory requirement of the PhD degree in Algeria. Unfortunately, Dilemmas of different sources may impede them from effective investigation in scientific research and make some of them abolish university post-graduation for the negative attitudes of fear, anxiety and reluctance of doing research. Experts grouped the most common dilemmas faced by doctoral students into: 1) Personal Dilemmas 2) Pedagogical Dilemmas and 3) Ethical Dilemmas. Each type is dealt with separately in this paper.

1-3 Personal Dilemmas (Psychological variables)

They represent difficulties related to the researcher's personality, character, mood mode of life and social background. They are the numerous obstacles that impede him from carrying research regularly. They include, but are not exclusively limited to lack of:

- Time
- Motivation and involvement in research
- Readiness to start research
- Theory related to the topic of research
- Contact with the supervisor
- Financial and family support

In addition to these common personal impediments that stand as a barrier against students' continuous investigation in research, other major individual issues are to be considered and these are the psychological variables or individual factors affecting students' performance of research activity mainly: anxiety, stress, reluctance and low-self confidence. For example anxiousness or anxiety is a normal response to fatigue, anger, stress, fear or treat. These intrusive thoughts and extensive worries may hinder students from engaging in tasks such as conducting research which is the case of most doctoral students. Furthermore, stress is the feeling of tension that occurs when students are overwhelmed with research method difficulties or qualitative and quantitative analysis biases in research. When this state of being stressed all the time becomes chronic during research it will automatically lead to depression, mental blocks or even to emotional exhaustion.

In order to defeat personal dilemmas of different sources the researcher should develop certain important qualities, among them Da Silva (2022, p.12) mentioned: "curiosity, patience, objectivity, collaboration, communication, creativity, discrimination, enthusiasm, accuracy, firmness, honesty, imagination, liberality, morality, perseverance and concern for professional development". Thus, if present these qualities will strongly shape the

researcher's success in applying the scientific method in research and therefore avoid dilemmas of various types.

1-4 Pedagogical Dilemmas (Research skills)

In scientific research the major task of a research is to use the scientific method in order to scrutinize specific phenomena and to serve his community. The inadequate implementation of the scientific method may, however, result in many pedagogical or professional dilemmas that hamper research activity. Therefore, the researcher must be knowledgeable about the main characteristics and requirements of the scientific method in relation to his topic of investigation.

Moreover, knowledge of the area of investigation, knowledge of the theory and literature carried in the same sphere of research interest and knowledge of the adequate research tools to be implemented are also pedagogical matters that if ignored will mislead the researcher in his research journey.

Indeed, doing well in research is strongly related to doing away with pedagogical dilemmas through intensive university training in research and extensive research methodology courses dedicated to novice researchers (teachers) and post-graduate students from different disciplines. Thus, theoretical and methodological research skills known as 'know-how' and 'know-what' (Bhattacharjee, 2023, pp.13) skills are a first requirement in any research activity.

1-5 Ethical Dilemmas (Moral Issues)

This type of dilemmas also known by moral problems is closely related to the researcher's individual beliefs about science and scientific research as well as to existing morals about principles of research and what can be researched or accepted for research and what cannot such as taboo topics or undesirable sample of study. Sometimes research may be considered ethically questionable and cause moral issues for the researcher. Ethics and morals in research may be considered as right or wrong and they may also be used interchangeably though they are different: "ethics refer to rules provided by an external source, e.g., codes of conduct in workplaces or principles in religions. Morals refer to an individual's own principles regarding right and wrong" (Maihan, 2022, p.3).

In fact, most doctoral university students face ethical and moral dilemmas in research because they do not receive any formal training in research ethics at university. It is unfortunately a reality in some universities that students have no idea about ethical principles of research and are not informed that one of the researcher's responsibility is: "to guarantee that the study is carried out in an ethical and professional way from the planning stage all the way to publication. Researchers and scholars must to become themselves acquainted with these rules and adhere to them to the letter" (ibid, p.20).

A possible solution to ethical dilemmas in research is to include courses in research ethics or seminars for university students throughout both graduation and post-graduation curricula because these can help them "to appreciate that it is their responsibility to know professional conventions as well as to understand the public nature of morality... courses in research ethics that incorporate a solid philosophical framework have the greatest potential for long-term usefulness to students" (Stern and Elliott, 1997, pp.2-5).

Ethical guidelines in doing research are crucial at university, especially when preparing doctorate dissertations. These include: safety, privacy and confidentiality of the sample (participants), plagiarism and self-plagiarism, avoiding falsification of results, avoiding subjectivity in collecting data...etc. Some ethical principles of social/science research are listed by Maihan (2022, pp.6-7) as follows:

Honesty- Integrity- Objectivity-Informed consent-Respect for person/respondent-Beneficence- Non-maleficence/ Protecting the subjects (human)- Responsible -Publication-Protecting anonymity- Confidentiality- Non-discrimination- Openness- Carefulness and respect for intellectual property- Justice.

All in all gathering these characteristics will indeed facilitate the research task for university researchers, especially post- graduate students who are beginners in research.

2- METHODOLOGY

2-1 Data Collection Procedures

The work is a small scale case study held at the department of English at Abou Bakr Belkaid University of Tlemcen with six EFL doctoral students selected randomly to take part in the study. They are actually conducting scientific research in different specialities: didactics, language studies and literature as part of their post-graduation. A semi structured interview was used as a main data collection tool because it allows the researcher to gather reliable qualitative data about the sample. The interview was targeted to collect information about the sample attitudes toward scientific research at the university and to know about the types of dilemmas they encounter when they do research. The seven open-ended questions included in the interview are:

- 1- What does scientific research at university represent for you?
- 2- Do you invest in scientific research on voluntary bases or because it is a must in your post-graduation?
- 3- What is/are your objective (s) in conducting research?
- 4- How do you define a research dilemma?
- 5- Do you face any dilemmas in scientific research? What do you think of them?
- 6- What are the types of research dilemmas you face in research (personal, ethical, pedagogic...others)? Please, specify.
- 7- How do you overcome these dilemmas?

It is worth noting that the six interviewees were interviewed individually, their answers were recorded and scripts were analysed comparatively.

2-2 Results' Analysis and Discussion

After conducting the interview, the crucial step of analysis, interpretation and discussion was carried out so that a thorough scrutiny of doctoral students' attitudes toward research and their relation with the types of dilemma they face is identified. The interviewees' responses represented a real foundation for the validation or illumination of the current study hypotheses.

As for the participants' attitudes toward scientific research at university they all declared that research is important and that it is only through research that science and discoveries evolve for the benefits of humanity. This is a clear indication that the sample holds positive attitudes toward scientific research at university which represents a professional duty and a compulsory study process according to all of them.

For the second question which asked them about their investment in scientific research, the collected data indicated here again that they all agreed that scientific research is a must at university and that they are obliged to conduct research because it is part of their post-graduation and none of them volunteer in any research activity if he is not required to do so. Interpretation of students' answers to this question revealed that doctoral students do not invest in any research activity out of what they are '*obliged*' to do as part of their post-graduation because of the dilemmas they face and that impede them from conducting research.

The informants' answers to the third question of the interview gave an explicit idea about their objectives in conducting scientific research. The interviewees' answers were categorized into general and practical as it is illustrated in the following table:

| General Objectives | Practical objective |
|---|---|
| <ul style="list-style-type: none"> - To help in solving education problems | <ul style="list-style-type: none"> - To be trained in the process of data collection - To be well prepared for writing the doctorate thesis (the practical side) - To be more focused when structuring the research questions - To practice hypotheses testing and validation - To present recommendations that might diminish the phenomenon under investigation. |

Table (2): Doctoral Students' Objectives in University Research

All in all, the stated objectives revealed the participants awareness of the importance of research at the university and it is a confirmation to their answers to the first question of the interview.

Regarding the informants' definition of research dilemma, the six interviewees gave the same definition by relating the word dilemma to the following words: 'difficulty in research', 'obstacle', 'constraint', 'impediment'. It is therefore clear that they are familiar with the word dilemma and they could fix a shared definition which is: 'a research dilemma is any difficulty or obstacle faced by a researcher in any step of research'. This is again a confirmation about students' reluctance to investigate in research (answers to question two) due to the dilemmas they encounter and that increase their anxiety lower their self-confidence and worse of all these dilemmas impact negatively their positive attitudes toward research.

As for research dilemmas they encounter at university, all the informants answers were positive stating that they always face dilemmas in different phases of research especially before starting the research or during the research. This can be interpreted by the fact that EFL doctoral students are not really ready to invest appropriately in scientific research and that serious training and preparation in post-graduation is necessary. In addition the participants think that these dilemmas are the source of their stress, anxiety and low-confidence to conduct research and that the difficulties they face mainly before starting research or during the data collection or analysis phase stand as strong barriers against their want and desire to do research. Put together, all these factors lead to students negative attitudes toward scientific research dilemmas. Thus the first hypothesis is validated.

Concerning students' identification of the types of dilemmas they face in research their answers were grouped into three categories as it is indicated in the table below:

| Personal Dilemmas | Pedagogical Dilemmas | Ethical Dilemmas |
|--|---|---|
| <ul style="list-style-type: none"> - Readiness to conduct research - Lack of personal involvement in research - Social de-motivating conditions to do research - Limited meetings with the supervisor - Overcrowded working schedule (no time for research) | <ul style="list-style-type: none"> - Lack of time for practice - Lack of support from the university - Hesitation in topic selecting - Frustration during data collection - Confusion about research instruments' selection for data collection - Ambiguities in the analysis phase of research (qualitative Vs Quantitative) | <ul style="list-style-type: none"> - Plagiarism - Honesty - Anonymity - Confidentiality - Subjectivity |

Table (3): Categorization of Types of Research Dilemmas Faced by EFL Doctoral Students.

Students' answers were grouped into three distinguished categories which are: personal, pedagogical and ethical. The ranking of these types was high for personal dilemmas followed by practical then ethical dilemmas. Results are illustrated in the bar-graph below.

Results obtained from the participants' answers to this question confirmed the second hypothesis that personal, pedagogical and ethical dilemmas are the main types of issues faced by EFL doctoral students in research. These dilemmas have different ranking according to their occurrence as follows: personal (psychological factors) at a first position, followed by pedagogical (practical research skills) with slight difference than ethical (moral values) dilemmas with low ranking. The actual rating given by the informants is due to the nature of research carried out by those students.

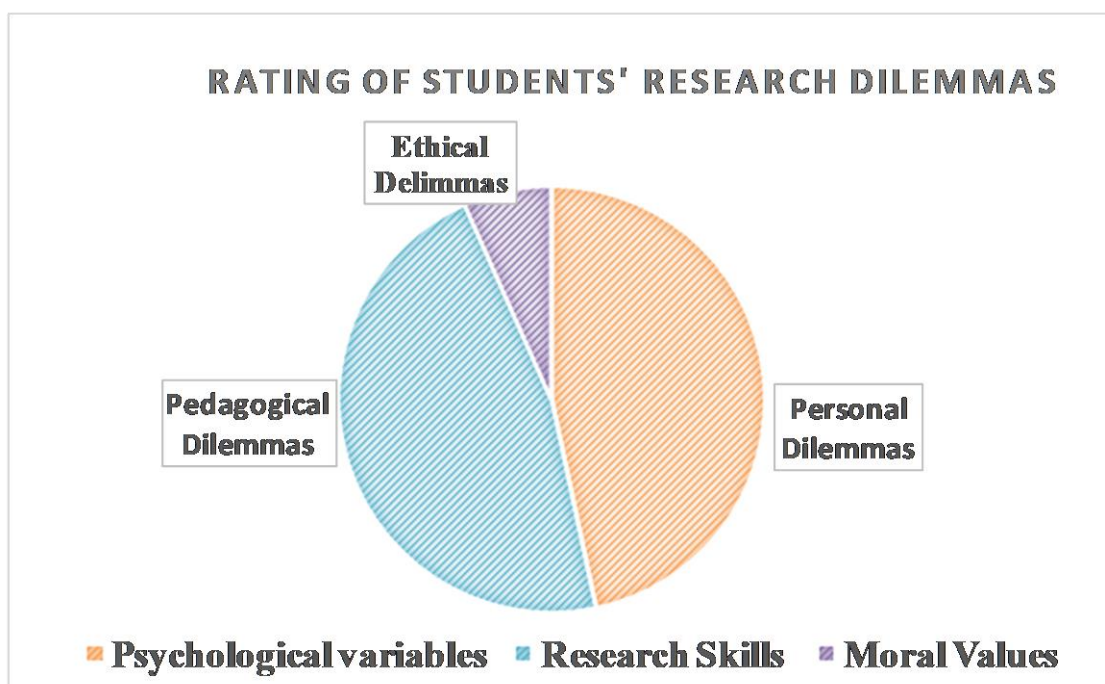


Figure (1): Students' Identification of the Types of Dilemmas they Face in Research.

Last and not least, the informants' answers to the final question of the interview were unfortunately few. Four out of the six interviewees provided their own ways to deal with research dilemma and the other two participants refused to answer this question without any justification. The ways students overcome dilemmas according to their answers are summarized as follows:

- ✓ Volunteer to do research.
- ✓ Set time for research.
- ✓ Challenge any difficulty you may encounter by hard work.
- ✓ Thinking of research as a normal activity related to post-graduation studies.
- ✓ Exchanging experiences with students facing the same dilemmas in research
- ✓ Avoiding complicated topics and research questions
- ✓ Defeating personal and social circumstances in order not to stop research and abandon post-graduation.

Interpretation of the obtained results revealed that those students are ill-equipped with the necessary research skills and techniques that help them confront dilemmas in research. This is why most of them stop research and many others change their topics of research. The informants proposed solutions were really interesting and might be effective if well applied.

In sum, the analysis, interpretation and discussion of the obtained findings yielded important outcomes that reinforce the idea that EFL doctoral students have positive attitudes toward research at the university and they are conscious about the importance of research in their post-graduation mainly, however, the personal dilemmas that they face and which are primarily related to some psychological factors (high anxiety and chronic stress when thinking of research, low self-confidence and reluctance to invest in research), pedagogical dilemmas (these are closely related to their lack of research experience, training in conducting research as well as their poor research skills (knowledge about research methodology) and ethical dilemmas which represent moral issues in research that are related mainly to the participants morals and believes such as objectivity, confidentiality and self-plagiarism .All these dilemmas impacted negatively their attitudes toward research and increased their fear to invest effectively in any research activity. In this way the two research hypotheses of the current study are validated

2-3 Pedagogical Recommendations

The outcomes of the study revealed that EFL university doctoral students are challenged by many dilemmas that are categorized as personal, pedagogical and ethical and that their negative attitudes towards these impediments stand as a strong barrier and a source of anxiety to handle scientific research effectively.

With reference to findings of this study it is strongly recommended for doctoral students in general and EFL students in particular to:

- ✓ Do away with research dilemmas and consider them as integral parts of research in order to do well in reducing some of them.
- ✓ Understand that attitudes as non-permanent psychological variables are constant to change, i.e., any doctoral student can feel uncomfortable to investigate in particular research (negative attitudes) and very excited to collect data about the same research (positive attitudes).What makes the difference is his disposition to defeat challenges of whatever sources in research.
- ✓ Dilemmas of whatever type: personal, pedagogical or ethical cannot be avoided in any scientific research activity but they can be at least mitigated through continuous training in research. The more doctoral students conduct research the better they will be in understanding the nature of these research dilemmas.
- ✓ A course in research ethics in indispensable for graduate/ post-graduation students in order to avoid moral biases in research.

- ✓ Research Methodology courses should accompany university students from the first year of the graduation till they finish post graduation so that they can avoid many practical research dilemmas
- ✓ Apart from their post-graduation research work (doctoral thesis) students at the level doctoral level are supposed to be researchers who should invest in research activity within their specialty and continuously
- ✓ Serious assessment of doctoral research activities should be maintained as part of students-researchers doctoral performance
- ✓ A call for extensive training in research skills is addressed to lecturers in Higher Education because practice in the skills of analysing, generalizing, systemizing, reflecting, raising hypotheses may solve many of doctoral students' scientific research impediments and boost university research from better to the best.

3- CONCLUSION

Scientific research in universities is in constant evolvement as more and more interesting research works are scrutinizing phenomena of different nature. However, the available literature of research conducted about university doctoral students and the challenges, dilemmas and constraints they face as beginning researcher is restricted. Thus, doctorate students should be given more consideration in university research as they represent the future of universities. Today doctoral students are future university teachers and the trainers of the coming generations of graduate students .It is through the training of the next generation of scholars represented by doctoral students that research and discovery continue to advance from one generation to another that support for universities huge efforts in sustaining research activities is maintained.

Footnotes:

¹Rosowsky, David, (2022), The Role of Research at Universities: Why it Matters.

²Chalmers, Alan. F, (2005), Kas yra mokslas? [What is this thing called science?], Vilnius: Apostrofa, Open University Press, Third Edition.

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