

UNDERSTANDING THE CHOICE OF RESEARCH METHODOLOGY IN HIGHER EDUCATION: INSIGHTS FROM DOCTORAL THESES IN APPLIED LINGUISTICS

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ABSTRACT

This research aims to study the choices of Algerian doctoral students in the field of Applied Linguistics regarding research methodologies, aiming to understand their trends and the resulting impacts on research precision and orientation. Examining 35 recent theses indicates an increasing inclination toward mixed-method approaches, underscoring their precision and adaptability. The study emphasizes the diversity in sample sizes and data collection methods as signs of flexibility, stressing the importance of combining quantitative and qualitative analysis in Algerian research. Providing valuable insights for language educators, it confirms advancements in applied linguistics within the Algerian context. The research seeks to improve language education practices in higher education by understanding and enhancing the choices made by doctoral students, contributing to the evolving landscape of research methodologies.

Keywords: *Methodology choices; Algerian doctoral students; applied linguistics; mixed-method approaches; Algerian context;*

INTRODUCTION

Research methodology is a vital component of applied linguistics, shaping the effectiveness and efficiency of research endeavours. It provides a systematic plan that encompasses various choices, ranging from foundational assumptions to detailed data collection and analysis procedures. The decision-making process in research methodology is far from linear, allowing for variations based on individual preferences and specific research needs.

The selection of an appropriate research design hinges on several key factors. Researchers must consider their underlying theories, research strategies, and the methods employed for data collection and analysis. External factors, such as the nature of the research problem, researchers' experiences, and the intended audience, also influence this critical choice (Creswell, 2009). What is considered a high-quality research design is often described as adaptable, suitable, efficient, and cost-effective. Also, it minimizes biases, enhances data reliability, and reduces experimental errors. Moreover, an exceptional design yields extensive information, facilitating a comprehensive exploration of multifaceted research inquiries (Kothari, 2004).

In the field of applied linguistics, the process of selecting appropriate research methodologies assumes paramount importance. To ensure the effectiveness and efficiency of their studies, researchers need to thoughtfully select appropriate methodologies. Research

designs in this field serve as comprehensive guides, encompassing choices from foundational assumptions to intricate data collection and analysis techniques. These choices are not rigidly prescribed; they adapt to individual preferences and research demands. The initial and crucial decision in this methodological journey revolves around identifying the research design that aligns most effectively with the research topic.

Selecting the right research methodology is often a challenging and perplexing decision for most researchers (Opoku, et al., 2016). The challenges in this decision-making process are underscored by Andrić and Milašinović (2021), who illuminate the persistent issues faced by researchers, from novices to seasoned professionals, when choosing between quantitative, qualitative, or mixed methods research approaches. Historically, this choice had been binary, forcing researchers to commit to either a quantitative or qualitative route. However, the emergence of mixed methods research has introduced an additional layer of complexity. A critical need arises for a coherent typology of mixed methods research designs, one that can guide researchers through this evolving field (Leech & Onwuegbuzie, 2009).

Algerian university students encounter distinctive obstacles during their academic journeys. These include challenges related to selecting research topics, inadequate guidance and mentoring, and limited exposure to research methodologies. Hamzaoui (2021) sheds light on these issues in the context of EFL master students at Belhadj Bouchaib University, Algeria, where students often grapple with difficulties in choosing research topics, academic writing, maintaining motivation, and being adequately prepared for their research endeavours. In the same line of thought, Siti et al (2022) noted that students frequently encounter challenges when choosing research topics that are neither overly broad nor excessively narrow, and they may face difficulty in settling on a topic altogether.

A variety of research has delved into the choice of research methods in higher education, especially within the realm of applied linguistics. Both Farsani & Babaii (2020) and Meihami (2020) observed a trend towards more diverse and rigorous methodologies, accompanied by an increasing adoption of mixed methods and qualitative approaches. Llamas (2011) emphasized on the significance of research methodology classes in equipping doctoral students for their research practices and dissertation endeavours. These academic research studies collectively emphasize the significant importance of having a comprehensive understanding when it comes to selecting appropriate research methodologies within higher education, especially in the specialized area of applied linguistics

Given the significant importance of these challenges, this article seeks to provide a thorough examination and gain valuable insights into the selection of research methodologies in the context of doctoral theses authored by Algerian university students in the field of applied linguistics. The primary objective of this study is to rigorously analyse a dataset comprising 35 doctoral theses sourced from various Algerian universities. Through this analysis, our aim is to gain a deeper understanding of how PhD researchers in the field of applied linguistics make choices regarding the most suitable research methodologies for their doctoral research projects.

Furthermore, this study aims at surpassing a mere comprehensive examination, aiming to offer profound insights into the selection of research methodologies within the realm of doctoral theses authored by Algerian university students in applied linguistics. In doing so, it strives to furnish these students with the essential tools and perspectives required

to make judicious and impactful decisions in the crucial area of research methodology selection.

These changes aim to enhance clarity, readability, and the overall structure of their introduction while retaining the key content and context.

1. STUDY QUESTIONS

Based on the topic and scope of the article, some potential research questions and objectives could include:

- What are the prevalent research methodology preferences among Algerian doctoral students in Applied Linguistics?
- How do these chosen methodologies contribute to research precision and alignment with research inquiries in the context of Algerian higher education?
- What are the implications of the identified trends in research methodology for language education and pedagogy in Algerian universities, and what opportunities for collaboration and further exploration do they suggest?

2. METHOD

Data Collection: To address the prevalent research methodology preferences among Algerian doctoral students in Applied Linguistics in selecting appropriate research methodologies for their doctoral theses in the field of Applied Linguistics, a systematic review was conducted. The review included the examination of 35 doctoral theses from various Algerian universities. The selection of these theses was based on their relevance to the field of applied linguistics and their accessibility through the university library's database or online repositories. To maintain consistency in the language of analysis, only theses written in English were considered for inclusion.

To ensure the inclusion of contemporary research, a time frame criterion was established. Theses completed within the most recent five years were included in the review. This timeframe ensured that the selected theses represented the latest developments in the field of Applied Linguistics.

Each thesis was meticulously examined to extract pertinent information related to research methodology, including the specific research design employed, methods of data collection, and techniques used for data analysis. This information was systematically recorded in a spreadsheet for further analysis.

To maintain the quality and relevance of the selected theses, predetermined inclusion criteria were applied during the screening process. These criteria included:

- Relevance to the field of applied linguistics.
- Completion within the last five years.
- Inclusion of a section dedicated to research methodology.

By adhering to these inclusion criteria, the review aimed to ensure that the chosen theses were directly related to the field of Applied Linguistics, up-to-date, and provided detailed insights into the research methodologies employed by Algerian university students in their doctoral research projects.

Data Analysis: The data analysis process involved categorizing each thesis based on the research methodology used. The coding scheme included categories such as quantitative, qualitative, mixed-methods research, as well as subcategories such as case study,

ethnography, and survey research. This categorization allowed for a thorough examination of the research methodologies employed by Algerian university students in their doctoral theses within the field of Applied Linguistics. A systematic categorization was performed, assigning each thesis to the appropriate research methodology category based on the methods used in the study. These categories were defined in alignment with established research frameworks and classifications, ensuring consistency in classification across the analysed theses. Quantitative research methodologies were identified in the studies that utilized numerical data, statistical analyses, and empirical measurement to address their research questions. This category encompassed various approaches such as experimental designs, correlational studies, and survey research. Qualitative research methodologies were identified when studies delved into the exploration of meanings, perceptions, and subjective experiences. These studies often employed methods such as interviews, participant observation, and content analysis to gain an in-depth understanding of the research phenomena. Mixed-methods research methodologies were recognised in the theses that integrated both quantitative and qualitative approaches to capture a comprehensive view of the research topic. These studies combined numerical data analysis with qualitative data interpretation to offer a holistic perspective. Each thesis was meticulously examined to determine its primary research methodology, enabling the assignment of the appropriate category. This rigorous categorization was crucial in accurately portraying the prevailing research methodologies employed by Algerian university students in their applied linguistics doctoral theses. The subsequent analysis focused on identifying trends in the distribution of research methodologies across the different categories. This examination allowed for insights into the preferences of researchers in the field and shed light on potential shifts in research practices over time. Additionally, the distribution of research methodologies was compared across different research topics and subcategories. This comparison facilitated the identification of potential patterns or variations in the choice of methodology based on the specific research focus. By systematically and comprehensively analysing a selection of theses from various universities in Algeria, this study aimed to provide valuable insights into the prevalent research methodologies utilised by Algerian university students. The results of this analysis contribute to a deeper understanding of the research landscape in the field of applied Linguistics and offer implications for supporting future researchers in their methodological decision-making process.

RESULTS AND DISCUSSION

The results of our analysis of the doctoral theses are presented in seven tables, each containing a selection of theses. These theses are grouped into seven categories, accompanied by brief descriptions of their research methodologies.

Category	Thesis	Research Focus	Research Design	Data Analysis Methods
Category 1: Intercultural Communication	Thesis 1: Understanding Intercultural Differences	Explore intercultural differences among third-year students	Quasi-experimental	T-test
	Thesis 2: Developing Intercultural	Develop intercultural awareness among	Mixed-method approach (experimental)	Descriptive statistics, factor analysis

	al Awareness	third-year LMD students	and descriptive designs)	
	Thesis 3: Emotional Intelligence Training	Investigate effects of emotional intelligence training on test-taking anxiety among first-year students	Quasi-experimental	<i>Descriptive and inferential statistics</i>
	Thesis 4: Enhancing Oral Competence	Integrate learning and innovation skills to enhance oral competence in first-year students	Quasi-experimental	<i>Descriptive and inferential statistics</i>
	Thesis 5: Asynchronous E-learning	Study the effect of asynchronous e-learning on grammar achievement in first-year students	Quasi-experimental	<i>Descriptive statistics, inferential statistics, content analysis</i>
Category 2: Language Learning & Intercultural Comm.	Thesis 1: Developing Oral Performances	Focus on developing oral performances using authentic materials among second-year LMD students	Quasi-experimental	
	Thesis 2: Impact of English Language	Explore the impact of English language and culture on personality and social values among first-year students	Descriptive approach with SPSS and NVivo	
	Thesis 3: Pragmatic Competence	Investigate integrating dynamic assessment in oral courses to develop pragmatic competence among third-year students	Case study and quasi-experimental components	
	Thesis 4: Culture Triangle	Focus on enhancing cultural awareness in teaching English as a foreign language using the Culture Triangle method	Quantitative with descriptive and inferential statistical analysis	
	Thesis 5: Cross-Cultural Sensitivity	Explore the role of cultural assimilators in developing cross-cultural sensitivity among first-year students	Quasi-experimental	<i>SPSS, thematic analysis</i>
Category	Thesis 1:	Investigate the role	True-	

<p>3: Language Learning & Intercultural Comm.</p>	<p>Pragmatic Competence</p>	<p>of explicit classroom instruction in promoting pragmatic competence among Master One students</p>	<p>experimental</p>
	<p>Thesis 2: Critical Discourse Analysis</p>	<p>Explore cross-cultural perceptions and attitudes among students using mixed methods</p>	<p>Descriptive and qualitative components</p>
	<p>Thesis 3: Critical Thinking</p>	<p>Focus on developing intercultural awareness through critical thinking in teaching social and human sciences for first-year students</p>	<p>Correlational study and quasi-experimental design</p>
	<p>Thesis 4: Classroom Socio-pragmatic Instruction</p>	<p>Investigate the role of classroom socio-pragmatic instruction in overcoming miscommunication problems among teachers and third-year students</p>	<p>Quasi-experimental</p> <p><i>Descriptive and inferential statistics</i></p>
<p>Category 4: Enhancing EFL Education & Instruction</p>	<p>Thesis 1: Corpus-Based Approach</p>	<p>Explore the role of the corpus-based approach in developing writing proficiency among second-year L.M.D students</p>	<p>Quasi-experimental</p>
	<p>Thesis 2: Classroom Interaction</p>	<p>Compare ESP and General English teachers' attitudes and practices in promoting classroom interaction using a case study approach</p>	<p>Quantitative and qualitative elements</p>
	<p>Thesis 3: Teachers' Motivation</p>	<p>Investigate teachers' motivation in choosing oral expression tasks for EFL students using correlational and quasi-experimental components in a mixed-method design</p>	

	Thesis 4: Literary Discourse	Explore the use of Halliday's Transitivity Analysis in teaching literary discourse	True-experimental
	Thesis 5: Affect in Language Learning	Study the role of affect in foreign language learning	Descriptive and exploratory components
Category 5: Enhancing Education & Communication	Thesis 1: Competency-Based Approach	Investigate the impact of combining the competency-based approach and multiple intelligences theory among first-year EFL students	Quasi-experimental
	Thesis 2: Autonomy and Integrity	Explore the influence of autonomy and integrity on undergraduate research quality	Quasi-experimental and descriptive study components
	Thesis 3: Language Switching	Study language switching among preschool children in Algeria	Qualitative and ethnographic
	Thesis 4: Listening to Connected Speech	Explore students' problems and strategies in listening to connected speech	Quasi-experimental
	Thesis 5: Pragmatic Force of Exclamatory Sentences	Analyze the communicative functions and pragmatic force of exclamatory sentences in written discourse	Experimental and descriptive study components
Category 6: Innovations in Language Learning & Teaching	Thesis 1: Vocabulary Knowledge	Study the impact of word-focused activities and short messages on students' vocabulary knowledge	Exploratory action research
	Thesis 2: Computer-Assisted Language Learning	Explore the impact of computer-assisted language learning on materials design	Quasi-experimental
	Thesis 3: Computer-	Investigate the impact of computer-	Quasi-experimental

	Mediated Task-Based Approach	mediated task-based approaches on vocabulary acquisition	
	Thesis 4: Habit Formation in EFL Learners	Explore habit formation in cognitive and metacognitive perspectives among students	Experimental
	Thesis 5: Automaticity and Cognition in Vowel Perception	Study automaticity and cognition in English vowel perception	Experimental
Category 7: Language Education & Linguistic Change	Thesis 1: Intergenerational Lexical Change	Investigate intergenerational lexical change using ethnographic qualitative research and an etymological approach	Descriptive
	Thesis 2: Blended Learning	Explore the development of composition skills through blended learning	Quasi-experimental
	Thesis 3: Teaching Oral Expression	Focus on a new integrated approach to teaching oral expression	Quasi-experimental

Table 1: Summary of Research Theses in Language Learning, Intercultural Communication, and Education

Several research studies carried out at different universities in Algeria, such as the University of Batna-2, Djillali Liabes University, and Constantine-1 University, have provided insights into the various methods used for research in the field of language education and pedagogy. These studies collectively reveal a strong inclination towards a "Mixed-Method" approach, which involves the fusion of quantitative and qualitative research methods. The potential explanation is that the utilization of mixed methods, by integrating various data sources, enables the discovery of diverse perspectives, views, and experiences. Bryman et al. (2008) argued that this inclination towards mixed methods is likely because blending diverse data sources facilitates the exploration of various perspectives, perceptions, and experiences.

In these research efforts, a range of subgroups within the field of research methodology are examined, including Quasi-Experimental Design, True-Experimental Design, Descriptive Mixed Method Research Design, Correlational Study, Ethnographic Qualitative Research and Experimental Design. The selection of the methodology

consistently reflects the particular research inquiries or goals while emphasizing dedication to methodological precision.

Researchers frequently encounter a significant hurdle in their research endeavours, which involves determining the appropriate number of participants needed to gather the necessary information and devising effective methods to generate sufficient data to meet their research goals (Sarantakos, 1998). Sample sizes across these studies vary, reflecting the diversity of student populations and resource constraints. Sampling techniques also range from random selection to non-probability methods. This variability underscores the adaptability of the research approaches to different contexts.

Data collection methods employed in these studies are equally diverse, encompassing traditional tools like Pre-Test & Post-test assessments, questionnaires, and tests, as well as qualitative methods such as interviews, classroom observations, participant observation, document analysis, and key informant interviews. This comprehensive array of data collection tools allows researchers to tailor their approaches to the unique demands of their research questions. According to Opoku, Ahmed, and Akotia (2016), it is crucial to ensure that the data collection method employed is suitable for obtaining the necessary information to achieve the overarching objectives of the study.

In terms of data analysis, a blend of quantitative techniques like T-tests, Descriptive statistics, inferential statistics, and qualitative methods like Qualitative data analysis, Content Analysis, Fairclough's CDA model, thematic analysis, and log analysis are used. This diversity in data analysis enables researchers to gain nuanced insights into their chosen areas of study.

Overall, these studies underscore a robust research culture in Algerian universities, where researchers demonstrate a blend of methodological diversity and a commitment to aligning research design with research questions. Their collective contributions offer valuable insights into language education, intercultural communication, pedagogy, and various aspects of education in the Algerian university context. These findings are invaluable resources for educators and researchers interested in understanding and improving language learning and teaching practices in diverse educational settings.

CONCLUSION

In this study, Algerian university researchers' inclinations and preferences regarding research methodologies for their doctoral theses in Applied Linguistics were explored. The findings offer valuable insights into the factors influencing their choices and the implications for research training and development. Key observations from analyzing 35 doctoral theses include:

- **Mixed-Method Approaches:** Researchers exhibit a strong inclination toward mixed-method approaches, emphasizing methodological rigor and alignment with research questions.
- **Diverse Methodologies:** Algerian universities foster a robust research culture, employing a wide range of methodologies—from quasi-experimental designs to ethnographic qualitative research.
- **Adaptability:** Variability in sample sizes and data collection methods highlights adaptability to different contexts.

IMPLICATIONS AND RECOMMENDATIONS

- **Educators and Researchers:** This research landscape serves as a valuable resource for educators and researchers interested in enhancing language education, intercultural communication, and pedagogy in Algeria.
- **Supporting Students:** Continuing to support Algerian university students in their research endeavors is crucial. Providing guidance and resources to navigate the complexities of research methodology selection is essential.
- **Practical Applications of English Language:** Educators are encouraged to promote students' exploration of practical applications of the English language using the Internet. Leveraging online communication can enhance academic performance and career prospects.

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