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Faculty of Letters and Languages Department of English

Master's Thesis

Submitted in Partial Fulfillment of the Requirements
for the Master's Degree in Language and Communication

Investigating Linguistic Barriers Affecting Medical Researchers' Publication in English. The Case of the Faculty of Medicine, Oran University.

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Dedication

To my beloved parents,

No words can truly express the love, respect, and gratitude I have for you.
Thank you for all the sacrifices you made, for your patience, guidance, and unconditional support throughout my journey.
May God bless you with health, happiness, and a long life.

To all my family,

I sincerely thank you for your constant presence, encouragement, and moral support, which gave me the strength to move forward and persevere.

To my wife Aldja,

I would like to express my deepest gratitude for your love, patience, and endless support. You have always stood by my side through both the difficult moments and the best times. Your encouragement and belief in me have been a true source of motivation in accomplishing this modest work.

To my brother Nesro,

Thank you for your support, advice, and valuable help throughout this experience.

To my supervisor Dr Lakehal Benchaa,

I would like to express my sincere appreciation for your guidance, valuable advice, and continuous support, which greatly contributed to the completion of this dissertation.

To the honorable members of the jury,

Thank you for accepting to evaluate this work and for the interest you have shown in it.

To my partner Nora,

I would like to warmly thank you for your efforts, serious collaboration, and team spirit that helped us accomplish this modest work under the best conditions.

Finally,

I dedicate this work to everyone who contributed, directly or indirectly, to my success and to the completion of this dissertation.

Dedication

In the name of Allah, the Most Gracious, the Most Merciful.

To myself

For every obstacle I overcame, every difficult moment I endured, and for the determination that guided me toward this achievement.

To my beloved mother, Boutiba Fatima

For your endless love, patience, sacrifices, and unconditional support, which have always been my greatest source of strength and inspiration.

To my brothers and sisters, Hadjer and Djoher

For your encouragement, motivation, and advice throughout this journey

To my colleague, Lotfi

For your valuable help, continuous support, and serious collaboration throughout this journey.
Working with you made this experience easier and more meaningful.

To all my family members

For your support, and prayers that gave me the strength to continue and succeed.

To my dear friends

Thank you for your support and for sharing both the difficult and joyful moments with me.

Finally

I dedicate this work to everyone who contributed, directly or indirectly, to my success and the completion of this modest work.

Acknowledgements

We would like to express our sincere gratitude to everyone who contributed, directly or indirectly, to the completion of this research work.

Our deepest and sincerest thanks go to our supervisor, Dr Lakhel Benchaa, for his guidance, support, valuable advice, and continuous encouragement throughout this study.

We would also like to extend our sincere appreciation to Dr. _____ and Dr. _____ for dedicating their valuable time and effort to evaluating this work and for their constructive comments and recommendations.

Special gratitude is addressed to the Department of English at the University of Relizane for their academic support and encouragement throughout our studies.

Finally, we would like to warmly thank the doctors and journal editors at the Faculty of Medicine, University of Oran, for their cooperation, availability, and willingness to participate in this research.

Abstract

This study examines the linguistic barriers faced by medical researchers at the Faculty of Medicine, University of Oran 1 Ahmed Ben Bella, when writing scientific articles in English. In the context of the dominance of English as the main language of international academic communication, researchers are required to produce clear and accurate scientific writing to ensure successful publication. However, many non-native researchers encounter difficulties that affect the quality and publication of their work. The study aims to identify the main linguistic challenges, particularly related to grammar, vocabulary, terminology, and academic writing style, and to explore their impact on research publication. A mixed-method approach was used, combining questionnaires administered to medical doctors and semi-structured interviews with journal editors. Quantitative data were analyzed using descriptive statistics, while qualitative data were analyzed thematically. The findings reveal that linguistic difficulties significantly affect the clarity and coherence of scientific manuscripts and may reduce publication success in national and international journals. Researchers also reported limited confidence in academic English writing and frequent reliance on digital tools such as Grammarly, DeepL, and ChatGPT. Editors confirmed that language quality strongly influences publication decisions, even when the scientific content is strong. The study concludes that improving academic English writing skills through targeted training, ESP courses, and institutional support is essential to enhance researchers' publication outcomes and international visibility.

Keywords: linguistic barriers, academic writing, medical researchers, English for Specific Purposes, scientific publication.

Résumé

La présente étude examine les obstacles linguistiques auxquels sont confrontés les chercheurs en médecine de la Faculté de médecine de l'Université d'Oran 1 Ahmed Ben Bella lors de la rédaction et de la publication d'articles scientifiques en anglais. Dans un contexte où l'anglais s'impose comme lingua franca de la communication scientifique, les difficultés linguistiques constituent un frein majeur à la diffusion des travaux des chercheurs non anglophones. Cette recherche vise à identifier les principales difficultés ; grammaticales, lexicales, terminologiques et stylistiques, et à évaluer leur impact sur le processus de publication. Une méthodologie mixte a été adoptée, combinant des questionnaires adressés à des médecins-chercheurs et des entretiens semi-directifs conduits auprès d'éditeurs de revues scientifiques. Les données quantitatives ont été analysées par statistiques descriptives et les données qualitatives par analyse thématique. Les résultats montrent que les lacunes linguistiques compromettent la clarté, la cohérence et la qualité des manuscrits, réduisant leurs chances d'acceptation. Ils révèlent aussi un manque de confiance chez les chercheurs et un recours fréquent à des outils numériques tels que Grammarly, DeepL et ChatGPT. Les éditeurs confirment que la qualité linguistique est un critère déterminant dans les décisions éditoriales, indépendamment de la valeur scientifique des travaux. L'étude recommande le renforcement des compétences en rédaction académique anglaise par des formations ciblées et des dispositifs d'anglais sur objectifs spécifiques pour améliorer la visibilité internationale des chercheurs.

Mots-clés : Lingua franca, obstacles linguistiques, chercheurs médicaux, anglais sur objectifs spécifiques, publication scientifique.

ملخص

تبحث هذه الدراسة في العوائق اللغوية التي يواجهها الباحثون الطبيون بكلية الطب بجامعة وهران 1 أحمد بن بلة عند إعداد وكتابة المقالات العلمية باللغة الإنجليزية. وفي ظل الهيمنة المتزايدة للغة الإنجليزية كلغة رئيسية في التواصل العلمي الدولي، أصبح من الضروري أن ينتج الباحثون نصوصاً أكاديمية دقيقة وواضحة لضمان قبول أبحاثهم في المجالات العلمية. ومع ذلك، يواجه العديد من غير الناطقين بالإنجليزية صعوبات لغوية تؤثر على جودة إنتاجهم العلمي وفرص نشره. تهدف هذه الدراسة إلى تحديد أبرز التحديات اللغوية، لا سيما المرتبطة بالقواعد النحوية، والمفردات، والمصطلحات العلمية، وأسلوب الكتابة الأكاديمية، إضافة إلى استكشاف تأثير هذه الصعوبات على عملية النشر العلمي. وقد اعتمدت الدراسة منهجية مختلطة، حيث جمعت البيانات الكمية من خلال استبيانات وزعت على أطباء وباحثين، بينما استُخلصت البيانات النوعية من مقابلات شبه موجهة مع محرري مجلات علمية. وتم تحليل البيانات الكمية باستخدام الإحصاء الوصفي، في حين خضعت البيانات النوعية للتحليل الموضوعي. أظهرت النتائج أن الصعوبات اللغوية تؤثر بشكل ملحوظ على وضوح وتماسك النصوص العلمية، مما قد يقلل من فرص قبولها في المجالات الوطنية والدولية. كما بينت النتائج أن الباحثين يعانون من ضعف الثقة في الكتابة الأكاديمية باللغة الإنجليزية، مع اعتماد متزايد على الأدوات الرقمية مثل Grammarly و DeepL و ChatGPT. وأكد المحررون أن جودة اللغة تُعد عاملاً حاسماً في قرارات النشر، حتى عندما يكون المحتوى العلمي قوياً. وتخلص الدراسة إلى أن تحسين مهارات الكتابة الأكاديمية باللغة الإنجليزية من خلال التكوين الموجه، ودورات الإنجليزية لأغراض خاصة (ESP)، والدعم المؤسسي، يعد ضرورياً لتعزيز فرص النشر ورفع الحضور العلمي الدولي للباحثين.

الكلمات المفتاحية: العوائق اللغوية، الكتابة الأكاديمية، الباحثون الطبيون، الإنجليزية لأغراض خاصة، النشر العلمي.

List of Abbreviations

AI	Artificial Intelligence
EAP	English for Academic Purposes
EFL	English as a Foreign Language
EMP	English for Medical Purposes
ENASUP	Enseignons en Anglais au supérieur
ESP	English for Specific Purposes
IMRAD	Introduction, Methods, Results, and Discussion

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General Introduction

Introduction

In recent decades, scientific research has become increasingly globalized, allowing researchers from different countries to contribute to the advancement of knowledge through international publications. In this context, English has emerged as the dominant language of academic communication. Most high-impact journals, conferences, and scientific databases require research to be written in English, making proficiency in academic English essential for researchers who seek to disseminate their work and engage in the global research community.

Medical research, in particular, is a highly competitive field where publication plays a central role. Publishing in peer-reviewed journals enables researchers to share discoveries, improve clinical practices, and contribute to the development of medical knowledge. It also supports career advancement, access to funding, and international collaboration. However, for researchers working in English as a Foreign Language (EFL) context, writing scientific articles in English remains a significant challenge.

In non-English-speaking countries such as Algeria, medical researchers often encounter linguistic difficulties when preparing manuscripts for international journals. These challenges include issues related to grammatical accuracy, lexical choice, and adherence to the conventions of academic writing. Furthermore, researchers are expected to follow standardized structures such as the IMRAD format (Introduction, Methods, Results, and Discussion), which requires not only language proficiency but also familiarity with academic discourse practices.

Despite the scientific value of their work, many researchers struggle to communicate their findings effectively in English. Consequently, manuscripts may be rejected or require extensive revisions due to language-related issues rather than weaknesses in scientific content. This situation

reduces the visibility of research produced in EFL contexts and limits researchers' participation in international scientific dialogue. However, relatively few studies have focused specifically on the linguistic challenges faced by medical researchers in the Algerian context.

At the Faculty of Medicine of the University of Oran 1 Ahmed Ben Bella, researchers actively contribute to various medical fields. Nevertheless, they often experience difficulties in writing and publishing in English-language journals. Therefore, this study aims to investigate the linguistic barriers faced by these researchers and to examine how these challenges affect the quality and publication of their scientific articles.

1. Background of the Study

Nowadays, scientific research has become more global, with researchers from different countries working together and sharing their findings more easily. In this context, English has become the main language used in academic communication, especially in journals and conferences around the world (Hyland, 2015). As a result, researchers are often expected to have a good level of English in order to present their work clearly and reach a wider audience (Swales, 2004).

In the field of medical research, publishing studies is very important because it helps spread new knowledge, improve healthcare practices, and support evidence-based medicine (Day & Gastel, 2012). However, for many researchers who use English as a foreign language, writing scientific articles can be challenging. They often face difficulties with grammar, vocabulary, specific terminology and with organizing their work according to the standard structure of research papers, such as the IMRAD format (Flowerdew, 2013).

Because of these challenges, language skills play an important role in helping researchers communicate their ideas effectively and participate in the international scientific community. This

is why it is important to better understand these difficulties and explore ways to support researchers in improving their academic writing in English.

2. Statement of the Problem

The promotion of readability and visibility in the scientific community requires researchers to write and publish their work in well-structured scientific articles, most often in English, which is considered the main language of international academic communication. Through scientific publication, researchers can share their findings, contribute to the development of knowledge, and increase the impact of their work at both national and international levels. However, medical researchers at the Faculty of Medicine, Oran University, face several linguistic barriers when writing and publishing their research in English. These difficulties are mainly related to grammar, vocabulary, and academic writing style. As a result, these linguistic challenges can affect the clarity, coherence, and overall quality of their manuscripts, which may reduce their chances of publication in international journals. Therefore, this study aims to explore the main linguistic difficulties encountered by medical researchers in writing scientific articles in English and to understand how these challenges influence their research publication process.

3. Research Questions (and Hypotheses)

This study is guided by the following research questions:

1. What linguistic challenges do medical researchers at the Faculty of Medicine, Oran University face when publishing in English?
2. How do these linguistic challenges affect the acceptance of their research in international journals?

3. What strategies or support mechanisms can improve their academic English writing and publication success?

4. RESEARCH HYPOTHESES

H01: Medical researchers at the Faculty of Medicine, Oran University face significant linguistic difficulties, especially in grammar, academic structure, and terminology which make it difficult for them to publish their work in English.

H02: Giving researchers specific language training, writing workshops, and useful writing tools can help reduce these difficulties and improve the quality of their scientific papers.

H03: Better English skills and academic writing ability increase the chances of researchers publishing their work in international medical journals.

4. Aims and Objectives

General Objective :

To explore the language barriers faced by medical researchers at the Faculty of Medicine, Oran University, when writing and publishing their research in English.

Specific Objectives :

1. To identify the main language difficulties experienced by medical researchers at Oran University in academic English writing.
2. To examine how these language difficulties affect the publication of their research work.
3. To assess the usefulness of existing language training programs and writing support tools.
4. To suggest practical solutions to improve researchers' English academic writing skills.

5. Significance of the Study

This study is important because it examines the linguistic barriers that medical researchers face when writing and publishing their research in English. It provides useful insights for medical researchers at the Faculty of Medicine of University of Oran 1 Ahmed Ben Bella by highlighting the main language difficulties that may affect their publication opportunities. The findings of this research may help universities and research institutions develop appropriate language training and academic writing support programs. In addition, the study may raise awareness among journal editors about the challenges faced by non-native English researchers and contribute to improving national and international scientific communication.

6. Structure of the Thesis

This thesis is organized into three main chapters. Chapter One presents the theoretical framework of the study. It discusses the role of English in international academic communication and examines the linguistic barriers faced by non-native researchers in medical research publishing. It also highlights the characteristics of medical academic writing and the common challenges related to grammar, vocabulary, and rhetorical organization. Chapter Two presents the research methodology and the data analysis procedures used in the study. It describes the research design, the research setting, the participants involved, and the data collection instruments, including the questionnaire and interviews. The chapter also explains the methods used to analyse the collected data. Chapter Three discusses the main findings of the study. It interprets the results obtained from the questionnaire and interviews, relates them to previous research, and highlights the main linguistic barriers affecting medical researchers' publication in English. The chapter also provides recommendations, discusses the implications of the findings, and presents the limitations of the study.

Chapter One: English and Linguistic Barriers in Medical Research

Introduction

This chapter is mainly concerned with the dominance of English in global medical research publishing, which creates significant linguistic barriers for non-native speakers, particularly Algerian medical researchers in an EFL context. It examines key aspects of medical academic writing clarity, objectivity, precision, and the IMRAD, which means Introduction, Methods, Results, and Discussion. structure while addressing common challenges such as grammatical errors, vocabulary gaps, and rhetorical issues that lead to rejections and reduced visibility. The chapter aims to analyse these obstacles and their impact on local scholars' global participation.

1.1 English as a Global Language of Medical Research

The position of English as a global language and its perceived effect on other languages has elicited strong debate for some time now. (Crystal, 2003). According to Hutchinson and Waters (1987), English is considered the main global language and is used in many important fields, including medicine. Its importance has grown because of historical, economic, and technological factors, which have made English the main language for international communication.

In the medical field, in particular, English serves as the main language for research publications, professional training, and international collaboration, as highlighted by Basturkmen (2010) and Laurence (2018).

Since English is the main language used in medicine worldwide, it is important for medical students and practitioners in Algeria to have a good level of English. This is especially important because French has traditionally been the dominant language in the healthcare sector

(Bouabdesselam, Chachou. 2016). To follow global medical developments, Algerian universities need to include more English in medical education so that students can work effectively in both national and international medical contexts (Dudley-Evans & Maggie, 1998; Flowerdew & Matthew, 2001).

1.1.1 The Dominance of English in Scientific and Medical communication

English has become the dominant language of communication in the medical field, influencing education, research, and clinical practice worldwide (Crystal, (2003); Paltridge (2013)). It serves as the primary medium for publishing medical research, facilitating collaboration between international healthcare professionals and allowing access to the latest scientific advancements (Ferguson, (2013); Anthony, (2018)).

According to Hutchinson and Waters (1987) and Basturkmen (2010), concerning the medical conferences, journals, and professional training, English is the most widely used language. Leading publications such as *The Lancet* and *The New England Journal of Medicine* published exclusively in English, requiring researchers and practitioners to develop English proficiency to stay updated with global medical advancements.

1.1.2 English for Academic Purposes (EAP) in Medical Contexts

In his book *English as a Global Language*, Crystal (2003) explains the global dominance of English in science and medicine. “Language achieves a genuinely global status when it develops a special role that is recognized in every country.” This idea is often used by researchers to explain why English became the main language of scientific publications, including medical research.

In *The Handbook of English for Specific Purposes*, Brian Paltridge and Sue Starfield (2013) discuss how English is used in specialized professional fields such as medicine. One representative statement is: “English is the dominant language for the communication of research

and scholarship internationally.” This explains why medical articles, clinical guidelines, and professional training are largely produced in English.

1.2 Academic Writing in Medical Research

Academic writing in medical research is an important skill. It helps researchers share their findings clearly with scientists and doctors. Writing good papers is needed to explain how research is done, show results, and make sure the information can be used in practice. Bad writing can cause papers to be rejected and slow down a researcher's work. Scientific writing is more than just writing down information, it helps share knowledge, supports good medical practice, and spreads new discoveries around the world (Behzadi, 2021).

1.2.1 Characteristics of Medical Academic Writing

From the perspective of Day & Gastel, (2012), medical academic writing has specific characteristics that distinguish it from other types of writing. One of the most important features is clarity. Medical research must present information in a clear and precise way so that readers, including researchers and healthcare professionals, can easily understand the findings. Ambiguous or unclear language can lead to misunderstanding and may affect clinical practice.

Hall (2013) argues that another important characteristic is objectivity. Medical academic writing avoids personal opinions and focuses on facts, evidence, and research results. Writers usually support their statements with data, statistics, and references from reliable scientific sources. This helps ensure that the information is credible and scientifically valid.

Swales, (2012) points out that, medical academic writing follows a structured format, usually known as the IMRAD structure: Introduction, Methods, Results, and Discussion. This organization helps readers understand the research process step by step and evaluate the validity of the study.

Another important point highlighted by Swales, (2012), accuracy and precision are also essential in medical writing. Medical terms, measurements, and research methods must be reported correctly. Even small errors in terminology or data can change the meaning of the research and reduce its reliability.

The author also points out that citation and referencing are fundamental features of medical academic writing. Researchers must acknowledge previous studies and give credit to original authors. Proper referencing also strengthens the credibility of the research and allows readers to verify the information (Swales, 2012).

Finally, medical academic writing aims to communicate scientific knowledge in a clear, objective, structured, accurate, and evidence-based manner, which helps advance medical research and improve healthcare practice.

1.2.2 Structure of Medical Research Articles

According to Day & Gastel, (2012), medical research articles usually follow a clear and organized structure. The most common format is called the IMRAD structure, which means Introduction, Methods, Results, and Discussion. The Introduction explains the research problem, gives some background information, and states the aim of the study. The Methods section describes how the research was carried out, including the materials and procedures used. The Results section presents the findings of the study, often with tables, figures, or statistics. Finally, the Discussion explains the meaning of the results and compares them with previous studies. This structure helps readers understand the research easily and evaluate the study.

1.3 Linguistic Barriers in Publishing Medical Research

Linguistic barriers represent one of the most persistent challenges in publishing medical research, particularly for scientists from non-English-speaking countries where English has long

been established as the dominant language of prestigious international journals (Flowerdew, 2015; Ammon, 2012). This dominance often places researchers at a disadvantage when attempting to disseminate their findings to the global scientific community, even when their studies address important medical issues or provide valuable data for international health research. In many cases, the evaluation of manuscripts is influenced not only by the quality of the research itself but also by the level of linguistic fluency in which the work is presented (Hyland, 2019). As a result, some papers may encounter difficulties during the peer-review process or face rejection because reviewers perceive problems related to clarity, grammar, or writing style rather than weaknesses in the scientific content.

Sun and Litavec (2025) emphasise concern, noting that “some research suggests that both editors and peer-reviewers may reject content citing poor English-language skills, or manuscripts that are not submitted in English may be ignored altogether.” Such practices highlight how language expectations can influence publication opportunities and shape whose research becomes visible within the international academic community. These linguistic dynamics also contribute to broader inequalities in the global production of scientific knowledge. In fact, bibliometric evidence demonstrates that a large proportion of research published in influential medical journals originates from a relatively small group of English-speaking countries.

Thus, according to Sumathipala (2004), “Developing country researchers face unseen barriers such as language difficulties, lack of confidence in writing in English and fear of rejection.” They emphasize how “language issues” further increase exclusion from high-impact venues. These insights clearly show that language is not only a means of scientific communication, but also a key factor that influences access, participation, and visibility in international medical research.

1.3.1 Grammar Difficulties in Medical Writing

Grammar struggles hit medical researchers hard, especially non-native English speakers from EFL regions. Tough rules and jargon cause slip-ups like bad punctuation, wrong prepositions, poor cohesion, missing articles, shaky verbs, tense mix-ups, and dangling modifiers. These block clear writing and publication, often due to native language habits muddying up scientific meaning (Hyland, 2019; Swales & Feak, 2012).

According to Farrokhi and Naghadeh (2021), grammatical errors topped the list in 50 Iranian papers, with punctuation errors ranking first, followed by mechanical, lexical, and discursal issues. As said by Zeinolabedini and Gholami, key trouble spots include dangling structures, conjunctions, verb tenses, and prepositions.

Ehsanzadeh and Dehnad (2024) found that cohesion errors accounted for 16% of mistakes, close behind with articles/determiners at 14%. They also suggest that simple strategies, such as additional editing practice or the use of style guides, can significantly improve the quality of writing for global research publication.

1.3.2 Academic Vocabulary and Medical Terminology Challenges

Medical research, specialized terminology and academic vocabulary play a vital role in communicating complex ideas clearly to an international scientific audience. They establish a standardized language for discussing diseases, treatments, and research findings, thereby minimizing ambiguity and improving precision in scholarly communication (Hyland, 2019; Day & Gastel, 2012).

Empirical research highlights the importance of this vocabulary. For example, Tazik et al. (2022) report: “our quantitative and qualitative data analysis yielded a final academic wordlist which consisted of 1,003 words... and accounted for 10.68% of the medical research articles.”

Their findings demonstrate the significant presence of academic vocabulary in medical research writing.

However, non-native English-speaking researchers often encounter linguistic challenges in meeting publishing expectations. As Paltridge and Starfield (2013) observe: “many second language writers find it challenging to meet the linguistic and rhetorical expectations of English-medium academic publishing.” This highlights the additional effort required to master both specialized terminology and academic discourse conventions. Therefore, mastering academic vocabulary is essential for effective participation in global medical communication.

1.4 Language Proficiency and Publication Success

Language proficiency is very important for success in academic publishing, especially in medical fields. Researchers need to write in clear English to share their ideas with others. If the language is not clear, the paper may be rejected, even if the research is good. In these fields, it is also important to use correct technical words and follow academic writing rules. Hyland (2019) explains that good writing should be clear and well organized.

Many non-native English researchers have difficulties with language (Flowerdew, 2015). They often spend more time and money to improve their writing (Hanauer, E. 2011). Today, AI tools can help correct mistakes and improve sentences. However, AI cannot replace good language skills. So, both English proficiency and the use of AI are important for publication success.

1.4.1 Relationship between English Proficiency and Research Visibility

English proficiency is important for making research more visible around the world. Most scientific articles are published in English, so researchers need good English skills to reach a wider audience (Hyland, 2019).

When a paper is written clearly, more people can understand it and use its results, which can increase citations. On the other hand, poor English can make a study difficult to read and reduce its impact (Flowerdew, 2015).

Even good research may be ignored if the language is not clear. In the medical fields, using correct technical words is also very important. Studies show that language problems can limit researchers' participation in international publishing (Ammon, 2012).

Today, AI tools can help improve writing and make texts easier to read. However, strong English skills are still necessary (Hanauer, 2011). Therefore, better English proficiency helps increase research visibility and impact.

1.4.2 Language Quality as a Criterion in Journal Acceptance

Language quality is an important factor in journal acceptance. Reviewers expect research papers to be written in clear and correct English. If the language is poor, the message may not be understood well, even if the research is good (Hyland, 2019).

Many journals reject or ask for revision because of language problems. Clear grammar, good structure, and correct vocabulary help reviewers evaluate the study more easily. In medical fields, using accurate technical terms is also very important. Studies show that language issues can reduce the chances of acceptance for non-native English researchers (Flowerdew, 2015). Because of this, many authors use editing services or AI tools to improve their writing (Hanauer, E. (2011)). However, these tools cannot fully replace strong writing skills, good language quality is a key criterion for journal acceptance.

1.4.3 Linguistic Barriers as a Cause of Manuscript Rejection

Linguistic barriers are one of the main reasons why manuscripts are rejected. Many non-native English researchers struggle to write clearly, even when their research is strong (Flowerdew, 2015).

Poor grammar, unclear sentences, and incorrect technical terms can make a paper difficult to understand. Reviewers may reject manuscripts or ask for major revisions because of these problems (Hyland, 2019).

In medical the field, using the right terminology is especially important. Language difficulties can delay publication and reduce the researcher's visibility in the scientific community (Ammon, 2012).

Some authors use editing services or AI tools to overcome these barriers (Hanauer, 2011). However, AI cannot replace good English skills, linguistic barriers remain a major challenge in academic publishing. Improving language proficiency can help reduce rejection and increase success.

1.5 The Algerian EFL Context in Higher Medical Education

In Algeria, English is taught as a foreign language (EFL) in universities. Medical students usually study in Arabic at school, then switch to French at university. This situation makes learning more difficult because students use different languages. English becomes a third language for them. However, English is very important in medicine because most scientific research is written in English. Many Algerian students have difficulties reading medical articles and writing in English (David, 2003).

Another problem is that English courses are often general and not focused on medical needs, which is called English for Specific Purposes (ESP) (Dudley-Evans, Maggie, 1998).

In addition, classes are sometimes large, and there are not enough trained teachers or modern materials. Students also have little exposure to English outside the classroom (Benrabah, 2013).

Today, Algeria is trying to improve the use of English in higher education to help students access international research and improve their academic and professional opportunities.

1.5.1 English as a Foreign Language in Algerian Universities

In Algerian universities, English is taught as a foreign language, but its status is still developing. It is often considered less important than French, especially in scientific fields. This situation affects how students and teachers see the value of English (Benrabah, 2013).

One important issue is the late introduction of English. Before, students started learning English in middle school, which gives them less time to build strong skills compared to other languages. As a result, many students arrive at university with a low level of English proficiency (Hyland, 2006).

Another key point according to Hyland. (2006) is the gap between secondary and university education. At school, students learn basic English (grammar and vocabulary), but at university, they are expected to use English for academic purposes. This sudden change creates difficulties in understanding lectures, reading articles, and writing assignments.

In addition, assessment in English is often theoretical, focusing on exams rather than communication skills. Students may pass exams but still have problems speaking or writing effectively. This shows a weakness in the teaching system (David, 2003).

David (2003) argues that English in Algerian universities is influenced by educational policy changes. Recently, there has been a shift toward promoting English in higher education to replace or reduce the use of French in some fields. This change shows that English is becoming more important for the future.

1.5.2 Challenges Faced by Algerian Medical Researchers in English Publication

Algerian medical researchers face many challenges when they try to publish in English. First, English is a foreign language for them, so they often have limited proficiency, especially in academic writing. Writing a scientific article requires clear structure, correct grammar, and specific vocabulary, which can be difficult (Hyland, 2006).

Another challenge pointed out by Swales. (1990) which is the quality of language. Many international journals require a high level of English, and articles can be rejected because of language problems, even if the research is good. This creates frustration for researchers.

In addition, researchers may not be familiar with the academic writing conventions in English, such as how to organize ideas, write abstracts, or discuss results. These conventions are different from those used in Arabic or French (Hyland, 2006).

From the perspective of Crystal. (2003) there is a lack of confidence. Some researchers are afraid to write in English or submit their work to international journals. This can reduce their participation in global research.

1.5.3 Institutional Support for Academic English at Oran University

At the Faculty of Medicine, University of Oran, there are several ways to support academic English. The faculty organizes medical English training for teachers. These courses help teachers improve their reading, writing, and communication skills in English (Faculty of Medicine, 2023a).

Teachers can also join the “Teach in English at University” (ENASUP) program. This training improves English skills for teaching higher education courses and helps teachers prepare materials in English (Faculty of Medicine, 2023b).

The faculty encourages research in English through its scientific journal, the *Journal de la Faculté de Médecine d'Oran*. Researchers can publish articles in English, which helps them

practice writing and share their work internationally (Journal de la Faculté de Médecine d'Oran, n.d.).

In addition, regional programs by higher education authorities organize English training for health sciences professors. These programs give teachers the skills to teach scientific subjects in English and follow national reforms to strengthen English in higher education (University of Continuous Education, 2025).

Despite these efforts, teaching and learning in English is still new for many students, and more support is needed to improve academic writing and English research skills (Faculty of Medicine, 2023a; University of Continuous Education, 2025).

Chapter Conclusion

In conclusion, the growing importance of English in medical research has changed the way scholars communicate their work around the world. For many non-native researchers, including those at Oran University, this reality can make publishing more demanding, not because of the scientific quality of their research, but because of the language required to present it. Some researchers may struggle to express their ideas clearly in English, which can limit the reach and impact of their work. For this reason, strengthening language support and developing effective English for Specific Purposes (ESP) programs at Oran University is essential to help researchers share their findings more confidently and participate fully in the international academic community.

Chapter Two: Methodology and Data Analysis

Introduction

This chapter presents the practical part of the study. It aims to examine how linguistic difficulties influence the writing and publication of research articles in English. The study adopts a mixed-method approach in order to obtain both numerical data and detailed insights. This chapter provides an overview of the research design, the research setting, the participants involved in the study, as well as the data collection instruments and the data analysis procedures used.

2.1 Research Design

This study is based on a mixed-method design, combining quantitative and qualitative approaches. The quantitative data are collected through a questionnaire administered to doctors, while the qualitative data are obtained through interviews conducted with journal editors. This design allows for a broader understanding of linguistic barriers and their impact on medical research publication.

2.2 Population and Sample

The study was conducted at the Faculty of Medicine, University of Oran. It involves a total of fifteen participants selected randomly, ensuring that each individual had an equal chance of participation. The participants include doctors working at the faculty and two editors from the faculty journal at the same university. This selection allows the study to gather perspectives from both those who produce research articles and those who are involved in their evaluation and publication.

2.3 Data Collection Instruments

In order to answer the research questions and achieve the objectives of the study, two data collection instruments were used to gather relevant data related to the topic under investigation. The first instrument is a questionnaire administered to doctors, and the second one is an interview conducted with journal editors.

2.3.1 Description of the Doctors 'Questionnaire

The questionnaire addressed to doctors is semi-structured. It is designed to collect information about their experiences with English in academic writing and publication. It consists of three sections and includes different types of questions such as multiple-choice, binary, closed-ended, and open-ended questions. The first section focuses on biographical and personal information and includes five multiple-choice questions such as gender, specialty, experience, Academic qualifications, English training course. The second section deals with doctors' experience in publishing in English and their level of confidence in writing research articles. It contains four multiple-choice questions. The third section explores the linguistic challenges faced by the participants and the types of support they use. It includes seven questions combining multiple-choice, closed-ended, and open-ended formats.

2.3.2 Description of Journal Editors' Interview

In the present study, the interview was conducted with journal editors at Oran University in order to explore the linguistic barriers faced in publishing research in English from their professional perspective. The participants were selected based on their experience in academic editing and their involvement in international scientific publication. The interview was designed as a face-to-face semi-structured interview and consisted of eight questions combining both close-

ended and open-ended formats, allowing the informants to express and elaborate on their opinions and ideas.

The interview was organized into main thematic sections. The first section focused on the use of English in academic contexts and the editors' experience in handling research articles, aiming to gather general background information and highlight differences in their practices.

The second section addressed linguistic difficulties in academic writing and the impact of English proficiency on article acceptance, including issues related to grammar, vocabulary, and academic writing style, as well as the editors' views on how language influences publication decisions.

Finally, the third section examined the strategies employed to overcome these difficulties, including the use of translation tools and AI-based applications, as well as suggestions for reducing linguistic barriers in international scientific publications. This structure aimed to provide a clear and comprehensive understanding of the role of English and the challenges associated with it, while maintaining coherence with the study's objectives.

2.4 Data Collection Procedure

The data for this study were collected through questionnaires and semi-structured interviews. The questionnaire was administered to medical doctors and researchers from different specialties at the Faculty of Medicine, Oran University, in order to identify the linguistic difficulties, they face when writing and publishing research articles in English. In addition, semi-structured interviews were conducted with journal editors to explore the main language-related obstacles encountered during the review of research articles submitted by non-native English-speaking researchers. The use of these two research instruments aimed to provide both quantitative and qualitative data relevant to the objectives of the study.

2.5 Data Analysis Methods

The data collected in this study were analysed using a mixed-methods approach, since the study includes both quantitative data from questionnaires and qualitative data from semi-structured interviews. The questionnaire data were analysed using descriptive statistics, by calculating frequencies and percentages, in order to identify and summarise the main linguistic difficulties reported by medical doctors and researchers. The results were presented in tables and figures to make them easier to understand and interpret. The interview data were analysed using thematic analysis. This involved transcribing the responses, then organizing them into similar ideas and grouping them into main themes related to the linguistic difficulties faced by researchers and journal editors. In general, this method of analysis provided a clear understanding of the linguistic challenges by combining both numerical and qualitative findings.

2.6 Presentation and Analysis of Results

This section presents the analysis of the data collected from the questionnaire and the semi-structured interviews. The results are shown using tables, figures, and percentages to clearly explain the main language difficulties faced by medical doctors and researchers. It also includes the answers of journal editors, which help to show the main problems they face during the review process.

2.6.1 Doctors' Questionnaire Analysis

Q 01: What is your gender?

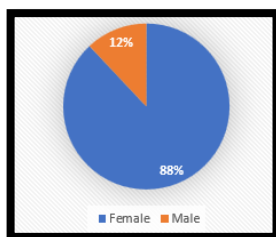


Figure 2.1: Participants' gender

This question aims to identify the gender distribution among doctors. After the analysis of the first question as it is shown in the figure above, (88%) represents female participants and (12%) are male.

Q 02: Years of experience in academic research and publication

Table 2.1: Doctors' years of experience

Doctors' years of experience	0 to 5	5 to 10	11 to 20	More than 20
Frequency (%)	80	4	0	16

The table above for the second question shows that most doctors have less than 5 years of experience represents 80% while 16% have more than 20 years and only 4% represents 5-10 years with No respondents were recorded in 11-20 years category.

Q 03: What is your professional specialty?

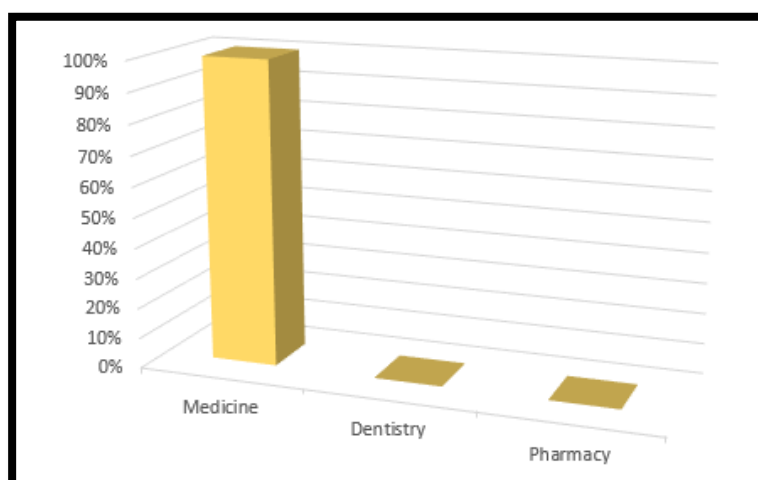


Figure 2.2: Doctors' professional specialty

This question seeks to determine doctor's professional specialty. In the third question, the result indicates that all participants (100%) belong to the Department of Medicine with none from dentistry or pharmacy.

Q 04: What is your Academic qualification

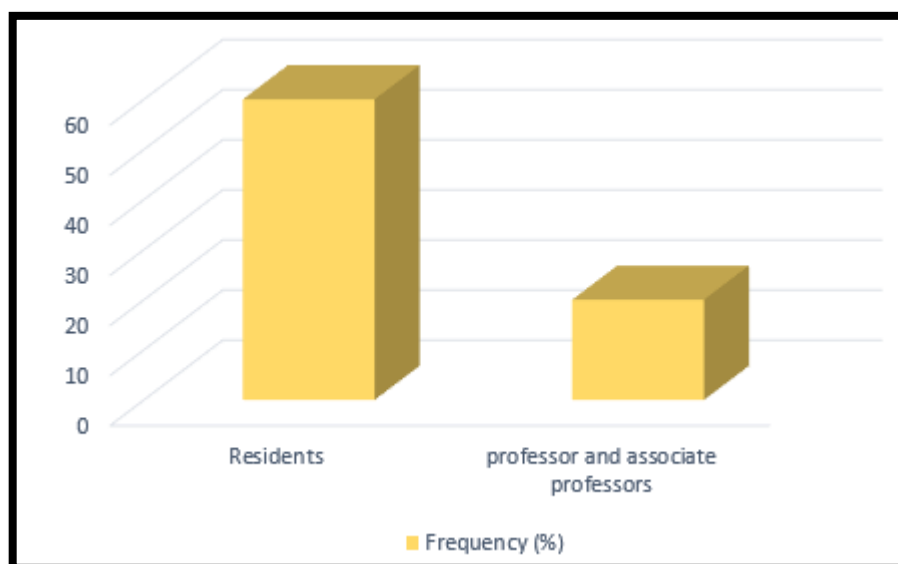


Figure 2.3: Doctors' academic qualification

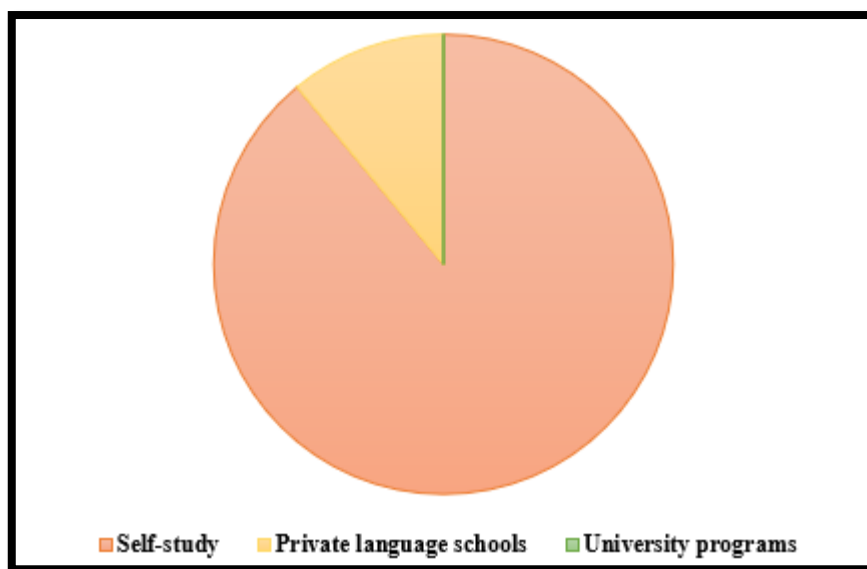
This question aims to recognize the participants academic qualifications. The figure above reveals that the majority of participants (60%) are residents, while professor and associate professors each represent (20%).

Q 05: Have you ever received an English training course?

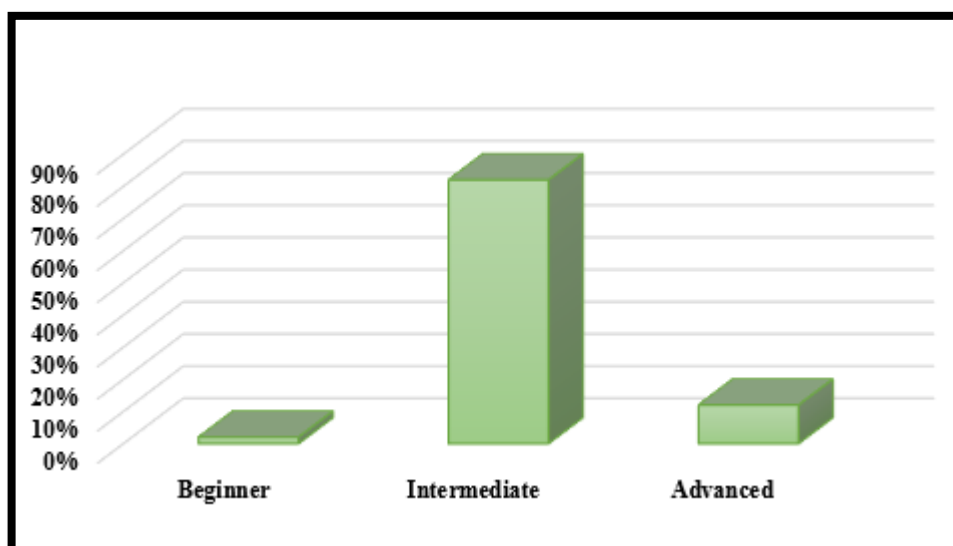
Table 2.2: English training experience

English training status	Received training	No training
Percentage (%)	45	55

The fifth question aims to assess whether doctors have received English training courses or not. The majority of doctors (55%) have not received any English training, while (45%) have.

Q 06: How did you learn English?**Figure 2.4:** Methods of learning English

The results of the sixth question highlights that self-study is the dominant method among doctors representing (89%), while (11%) rely on private language schools with no use of university programs. This question seeks to determine how doctors learned English.

Q 07: How would you rate your level of English proficiency?**Figure 2.5:** Level of English proficiency

This question intends to determine the doctors' level of English proficiency in which the result shows that (82%) have an intermediate level, followed by (12%) at an advanced level and (2%) a beginner level.

Q 08: Have you ever submitted a research article to an international journal published in English?

Table 2.3: Experience in publishing in English

Publishing experience (English)	Percentage (%)
Have submitted an article	45.5%
Have not submitted an article	54.5%

This question aims to determine whether the doctors have experience in publishing in English. The table above illustrates that 54.5% of doctors have not submitted a research article to an international journal, while 45.5% have.

Q 09: How confident do you feel when writing a research article in English?

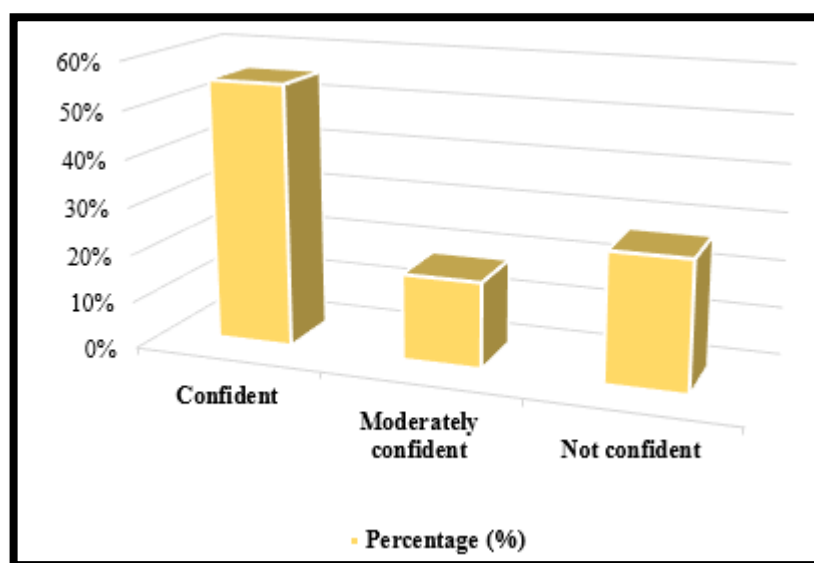


Figure 2.6: Confidence in writing in English

This question focuses on the doctors' level of confidence in writing a research article in English, in which the majority feel confident (55%), while (18%) feel moderately confident and (27%) are not confident.

Q 10: Which aspects of English academic writing do you find most challenging?

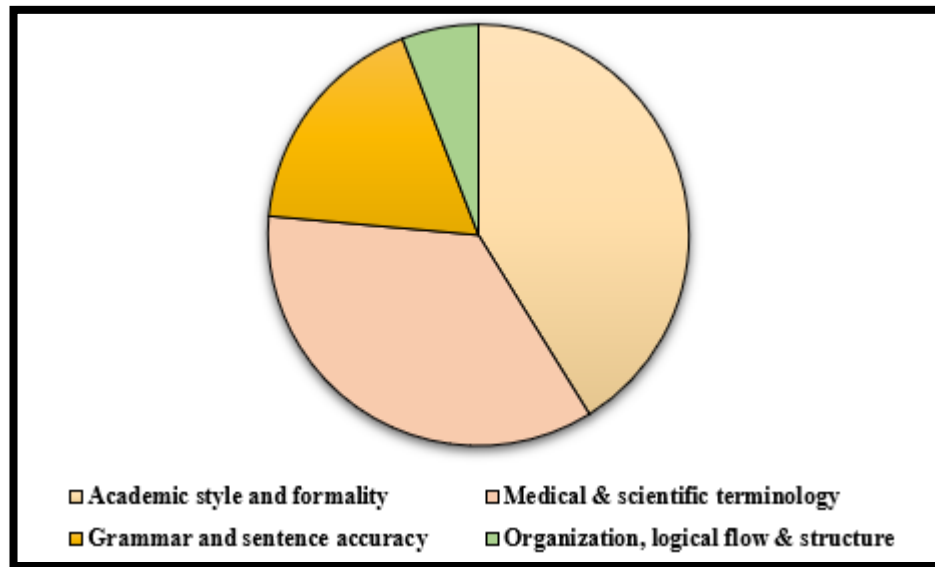


Figure 2.7: Challenges in Academic writing

The question highlights that academic style and formality are the most challenging aspects (63.6%), followed by medical and scientific terminology (54.5%), and grammar and sentence accuracy (27.3%), while organization, logical flow and article structure are at the least challenging (9.1%) each. This question focuses on the aspects of English academic writing that doctors find most challenging.

Q 11: To what extent do linguistic difficulties affect the clarity of your research writing?

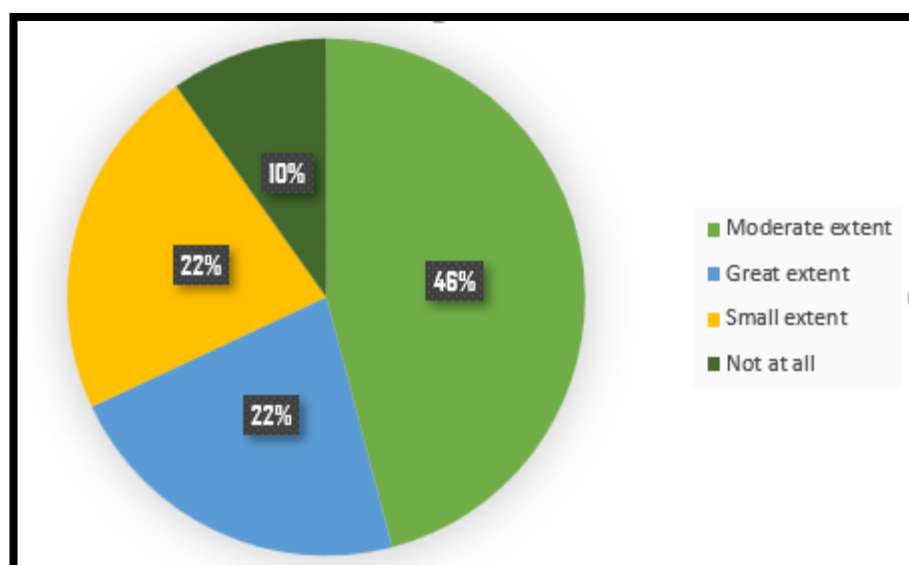


Figure 2.8: Impact of linguistic difficulties on clarity

This question examines the extent to which linguistic difficulties affect the clarity of research writing. The results illustrate that most doctors report a moderate extent (56%), while equal proportions report a great and small extent (27%) each. With only (12%) stating not at all.

Q 12: Have any of your manuscripts been rejected or required major revision mainly due to language -related issues?

Table 2.4: Language related rejection

Manuscript status	Percentage (%)
No rejection or major revision due to language	90.9%
Rejection or major revision due to language	9.1%

This question aims to determine whether language -related issues have led to manuscript rejection or major revision. The results show that (90.9%) of doctors have not experienced rejection or major revision due to language related-issues, while only (9.1%) have.

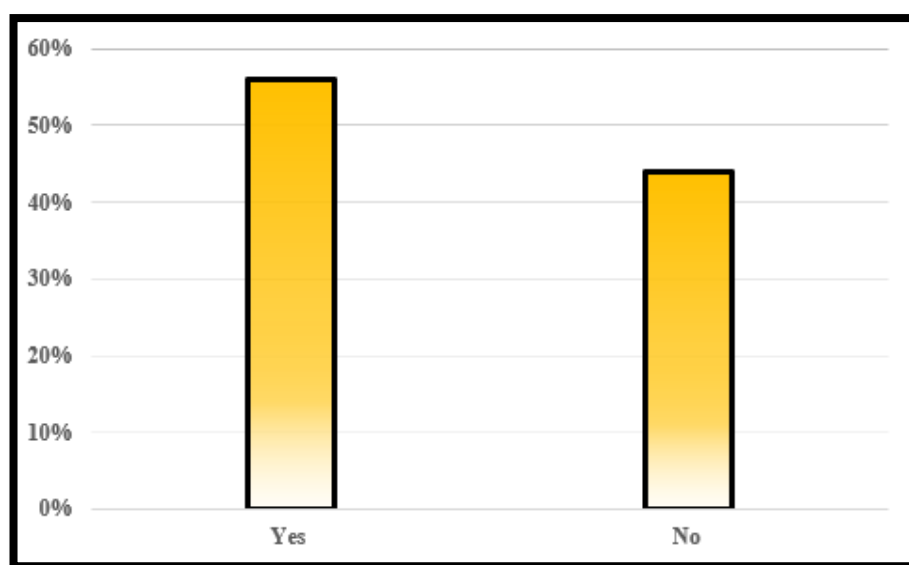
Q 13: Do you think that language problems sometimes affect the scientific quality of your research?

Table 2.5: Impact of language on research quality

Frequency of impact	Percentage (%)
Sometimes	45.5%
Often	18.2%
Rarely	18.2%
Not at all	18.2%

This question intends to assess whether language problems affects the scientific quality of research. The table above demonstrates that (45.5%) of respondents report that language problems sometimes affect the quality, while equal proportions (18.2%) indicate often, rarely and not at all.

Q 14: In your opinion, do linguistic challenges reduce your chances of publishing in high-impact national and international journals?

**Figure 2.9:** Effect of linguistic challenges on publication chances

This question aims to examine whether linguistic challenges reduce the chances of publishing in high-impact journals. The figure shows that more than half of doctors (56%) believe that linguistic challenges reduce their chances of publication. While slightly fewer (44%) do not.

↳ Those who answered yes indicated that this is mainly due to a reduction in the quality of the content.

Q 15: Do you use any tools or resources to support your academic writing in English?

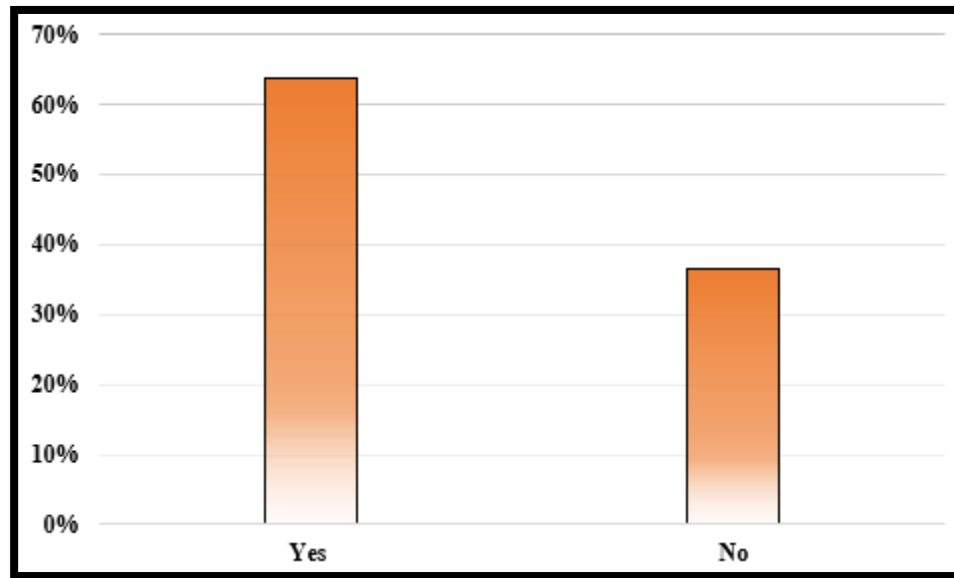


Figure 2.10: Use of writing support tools

This question aims to examine whether doctors use tools or resources to support their academic writing in English. Among those who use them, the most commonly mentioned tools are ChatGPT, DeepL and Grammarly. The figure shows that (63.6%) use such tools, while (36.4%) do not.

Q 16: How effective do you find these tools or resources in improving your academic writing?

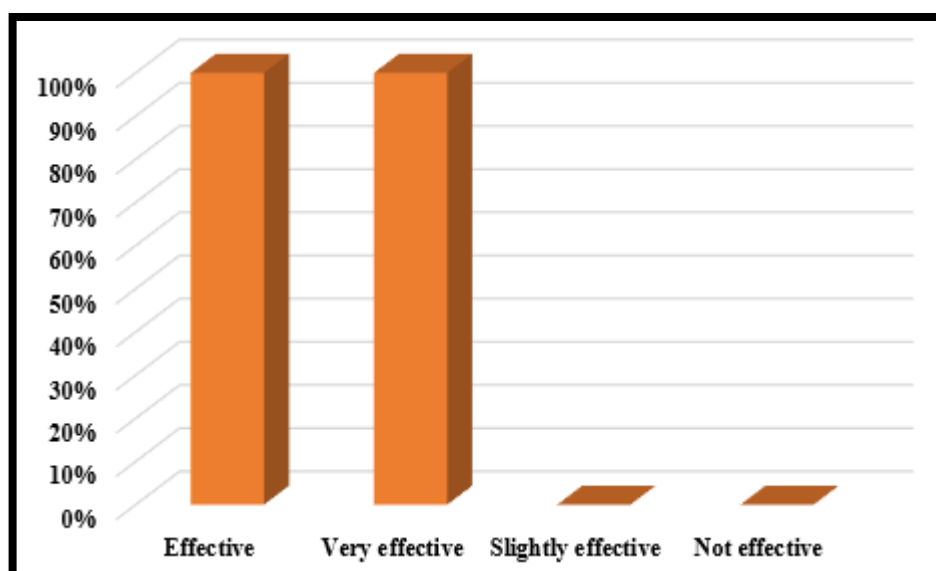


Figure 2.11: Effectiveness of Writing tools

This question evaluates the effectiveness of tools and resources in improving academic writing. The results indicate that (100%) consider them effective and very effective. With no participants reporting slight or no effectiveness.

Q 17: How do you translate your research articles into English?

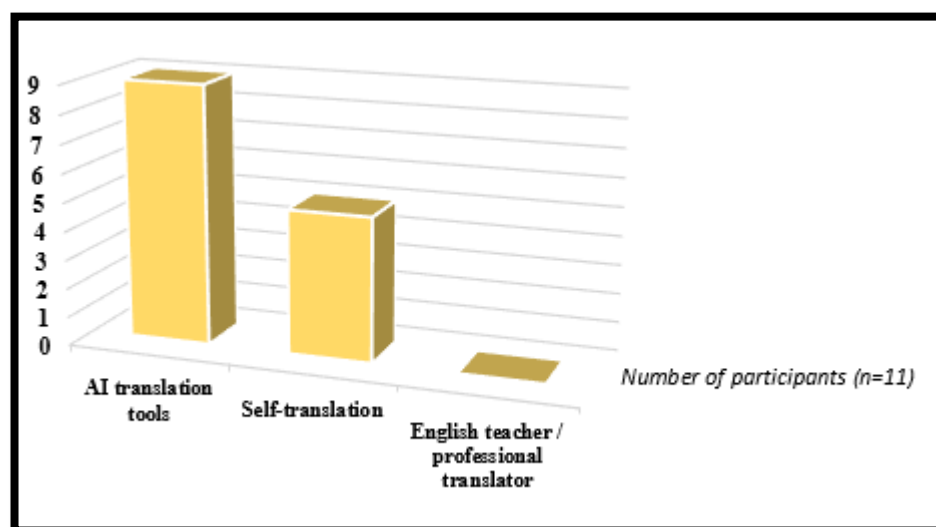


Figure 2.12: Methods of translating research into English

Figure 2.12 above illustrates how doctors translate their research articles into English in order to understand the methods they rely on. The following results are obtained: (09) participants out of (15) use AI translation tools, (06) participants translate their work themselves and no participant relies on an English teacher or a professional translator.

2.6.2 Analysis of Journal Editors ‘Interview

The data collected from the semi-structured interviews were analyzed using thematic analysis. The responses were carefully read and coded in order to identify recurring ideas. The analysis revealed several common themes related to the use of English in academic research and the linguistic challenges faced by researchers.

2.6.2.1 Use of English in Academic Contexts

Both participants indicated that English is widely used in their academic activities. The first participant reported: “I use English mainly for reading research articles, writing papers, participating in conferences, and communicating with journal editors.” Similarly, the second participant stated that English is mainly used for reading articles, writing research papers, and attending conferences. This indicates that English plays a central role in international scientific communication, especially in research dissemination and academic collaboration.

2.6.2.2 Publication Experience in English

The participants show different levels of experience in publishing research articles in English. The first participant has extensive experience, stating that about 50% of their 82 publications were written in English. The interviewee states that: “Publishing in English is an easy task thanks to translation tools.” In contrast, the second participant reported having published fewer than five articles in English-language journals. This difference highlights the variation in

researchers' exposure to international publishing, which may influence their confidence and writing practices in English.

2.6.2.3 Linguistic Difficulties in Academic Writing

Both interviewees reported similar linguistic challenges when writing research articles in English. The main difficulties identified in this study are related to grammar, vocabulary, and academic writing style. These linguistic problems make writing research articles in English more difficult. These difficulties were explicitly mentioned by both participants. This finding suggests that academic writing conventions and linguistic accuracy remain important challenges for non-native English researchers.

2.6.2.4 Impact of English Proficiency on Article Acceptance

The participants had slightly different perceptions regarding the influence of English proficiency on publication success. The first participant believed that English proficiency does not affect article acceptance, mainly because researchers rely on translation tools to improve the quality of their writing, he said: "I do not really know English, but as long as translation is available, I do not think it will be an obstacle for me to publish a scientific work." The second participant, however, suggested that language proficiency may affect acceptance to some extent, although translation assistance helps overcome this limitation.

These responses indicate that while language skills may play a role, technological tools reduce the negative impact of limited English proficiency.

2.6.2.5 Strategies Used to Overcome Linguistic Difficulties

Both participants rely heavily on digital tools and artificial intelligence to address language difficulties. The most frequently mentioned tools include: DeepL, ChatGPT, Grammarly, Other translation tools. These tools are used to improve grammar, vocabulary, and clarity when writing

research articles in English. This finding highlights the growing importance of AI-assisted writing technologies in academic publishing.

2.6.2.6 Rejection Due to Language Problems

Surprisingly, both participants reported never having their articles rejected due to language problems. They attributed this to the use of translation and editing tools, which help ensure that their manuscripts meet the linguistic standards required by international journals.

Chapter Conclusion

The analysis of the data showed that many doctors experience challenges in academic writing, especially in vocabulary, grammar, and writing style. It also revealed that some participants lack confidence when writing in English. In addition, most of them rely on digital tools and AI-based applications to improve their writing and overcome these difficulties.

Generally, this chapter provided a clearer understanding of the main linguistic barriers faced by doctors, as well as the strategies they use to deal with them. These findings are important for understanding the role of English in academic publishing. The next chapter will build on these results by discussing them in relation to previous studies and by drawing general conclusions about the research topic.

Chapter Three: Discussion, Implications, and Limitations

Introduction

This chapter presents and discusses the data collected for this study. It focuses on the linguistic difficulties that doctors face when writing and publishing research articles in English for national and international journals. To explore this issue, the researchers used doctors 'questionnaires and journal editors' interviews as research tools. This chapter also analyses the main findings of the study and suggests some recommendations to help doctors improve their academic writing and publication skills.

3.1 Discussion of the Collected Data

This research is conducted to investigate the linguistic difficulties that doctors face when writing and publishing research articles in English for national and international publication. Considering the growing importance of English in medical research and academic publication, the researchers aim to examine this issue from both doctors' and journal editors' perspectives. This section is mainly concerned with the discussion and interpretation of the collected data obtained from doctors' questionnaires and journal editors' interviews in order to highlight the major findings related to the study.

3.1.1 Interpretation of Doctors' Questionnaire

The researchers of the present study found through the analysis of the doctors' questionnaire that linguistic difficulties represent one of the main challenges faced by doctors when writing and publishing research articles in English. English has become an essential language in medical research and international publication; however, many doctors still experience problems related to academic writing, grammar, vocabulary, and scientific style. Furthermore, the

findings reveal that most participants rely on self-learning and technological tools rather than formal English training programs. This shows that doctors are aware of the importance of English in academic publication, yet they still face several linguistic barriers that may affect the clarity and quality of their research articles.

In questions five and six, the researchers aim to explore the participants' experience with English learning and training. The majority of doctors reported that they had never received formal English training and that they mainly learned English through self-study rather than university programs. In addition, only a small number relied on private language schools. This indicates that many doctors depend on personal efforts to improve their English skills. However, self-learning alone may not always be sufficient for mastering academic writing and scientific publication requirements. Therefore, the lack of formal training may explain some of the linguistic difficulties faced by doctors in academic writing.

Moreover, in questions seven, eight, and nine, the researchers attempt to examine the doctors' level of English proficiency, their publication experience, and their confidence in writing research articles in English. The majority of participants described their English level as intermediate, while only a few considered themselves advanced. Furthermore, more than half of the participants had never submitted a research article to an international journal published in English. Despite this, many doctors reported feeling confident when writing research articles, whereas others expressed moderate or low confidence. This suggests that confidence in academic writing differs according to language proficiency and previous publication experience. It is important to note that having an intermediate level of English may help doctors understand scientific content, but it may still create difficulties in producing clear and professional academic writing.

Furthermore, questions ten, eleven, thirteen, and fourteen focus on the linguistic difficulties faced by doctors and their impact on research quality and publication opportunities. The majority of participants identified academic style and formality as the most challenging aspects of writing, followed by scientific terminology and grammar. In addition, most doctors stated that linguistic difficulties affect the clarity of their research writing and may sometimes reduce the scientific quality of their articles. Likewise, more than half of the participants believed that language problems reduce their chances of publishing in high-impact national and international journals. These findings demonstrate that academic writing requires more than scientific knowledge alone; it also requires the ability to present ideas clearly and appropriately according to academic conventions. Weak language use may therefore limit the effectiveness and visibility of valuable scientific research.

In addition, questions twelve, fifteen, sixteen, and seventeen investigate how doctors deal with linguistic difficulties and what strategies they use to improve their academic writing. The findings reveal that most participants had not experienced manuscript rejection due to language-related issues. This may be explained by their increasing reliance on digital and AI-based tools such as ChatGPT, DeepL, and Grammarly. Moreover, the majority of participants considered these tools effective in improving grammar, vocabulary, translation, and clarity. Most doctors also reported using AI translation tools to translate their research articles into English instead of relying on professional translators or language specialists. This finding highlights the growing importance of technology in academic writing and publication. However, relying completely on AI tools may not always guarantee accurate academic style or scientific precision without careful revision by the researchers themselves.

In general, the findings reveal that doctors face several linguistic challenges in academic writing and publication, especially in terms of academic style, grammar, and scientific vocabulary. Furthermore, the study shows that many doctors rely mainly on self-learning and AI-based technologies to improve their writing and overcome language barriers. Therefore, it is important for universities and medical institutions to provide more support through English for Medical Purposes training programs, academic writing workshops, and editorial assistance in order to help doctors improve their writing skills and increase their chances of publication in international journals.

3.1.2 Interpretation of Journal Editors' Interview

The analysis of the semi-structured interviews with journal editors reveals important insights into the role of English in academic publishing and the linguistic challenges faced by researchers. The findings were organized into key themes based on the interview responses.

First, regarding the use of English in academic contexts, both interviewees confirmed that English is widely used in their editorial activities. It is mainly used for reading and reviewing research articles, handling submissions, communicating with authors and reviewers, and participating in academic exchanges. This clearly shows that English is the main language of scientific communication in international publishing environments.

Secondly, in relation to publication experience in English, the two editors reported different levels of exposure to English-language publications. One editor had extensive experience with a large number of publications in English, while the other had fewer publications but still regularly worked with English manuscripts. Despite this difference, both participants confirmed that English is essential in academic publishing and is the dominant language in scientific journals.

Furthermore, concerning linguistic difficulties in academic writing, both interviewees identified similar challenges faced by researchers. These difficulties mainly include grammar, vocabulary, and academic writing style. The editors explained that such issues are common, especially among non-native English speakers, and may affect the clarity and quality of research articles, even when the scientific content is strong.

In terms of the impact of English proficiency on article acceptance, the participants expressed slightly different views. One editor stated that language proficiency does not directly determine article acceptance, as the main focus is on scientific quality and originality. However, the other editor indicated that language problems may still influence the review process, as unclear writing can require more revisions. This suggests that English proficiency is not the main criterion for acceptance, but it still has an indirect effect on publication quality and evaluation.

Finally, regarding strategies used to overcome linguistic difficulties, both editors reported that researchers rely heavily on digital tools and artificial intelligence applications. The most commonly mentioned tools include DeepL, Grammarly, ChatGPT, and other translation tools. These tools are used to improve grammar, vocabulary, translation accuracy, and overall clarity of academic writing. This indicates that technological tools have become an important support system for researchers in overcoming language-related challenges.

Concerning rejection due to language problems, both interviewees stated that they have not experienced manuscript rejection solely because of linguistic issues. Instead, language-related problems are usually addressed through revision requests or improvements before final acceptance. This reflects an editorial approach that prioritizes scientific content while still ensuring that manuscripts meet acceptable language standards.

Globally, the findings show that English plays a central role in academic publishing and editorial communication. Researchers often face linguistic challenges related to grammar, vocabulary, and academic writing style, but these difficulties do not usually lead to direct rejection of manuscripts. Instead, they are managed through revision processes and language improvement strategies.

The results also highlight the increasing use of digital tools and artificial intelligence applications as supportive resources for improving academic writing. These tools help researchers overcome language barriers and enhance the clarity of their manuscripts, which contributes to smoother publication processes.

3.2 Discussion of the Main Findings

Through the use of questionnaires for doctors and semi-structured interviews with journal editors, the researchers obtained data that highlights the main linguistic issues related to academic article writing and publication. The findings provide a clear understanding of the difficulties experienced during manuscript preparation and the editorial evaluation process.

It appears that linguistic difficulties are a common and recurring challenge in academic article writing. The doctors reported facing problems mainly related to grammar, vocabulary, and academic writing style when preparing research manuscripts. The journal editors also confirmed that these same issues are frequently observed in submitted articles. This consistency between both groups indicates that linguistic accuracy remains a key difficulty affecting the writing process.

According to the doctors' responses, these difficulties can make it harder to produce clear and well-structured research articles. As a result, extra effort is often needed during the writing stage to improve clarity and academic quality before submission. The editors' responses support this view, as they explained that many manuscripts require language revision before they can be

considered suitable for publication. This shows that language quality plays an important role in shaping the final version of academic work.

Furthermore, the findings reveal that doctors rely heavily on self-support strategies and digital tools to manage these writing challenges. Tools such as ChatGPT, Grammarly, and DeepL are frequently used to improve grammar, translate ideas, and enhance clarity. The editors also confirmed the increasing use of such tools during manuscript preparation and revision. This indicates that academic writing is increasingly supported by technological assistance, which helps researchers reduce linguistic barriers and improve the overall readability of their work.

In addition, both doctors and editors reported that linguistic problems do not usually lead to direct rejection of academic articles. Instead, manuscripts are commonly returned for revision with suggestions for language improvement. This suggests that the review process tends to prioritize the scientific content of the work, while language issues are treated as aspects that can be corrected during revision.

Finally, the overall findings show that academic article writing is shaped by the interaction between linguistic competence, revision processes, and technological support. Although researchers continue to face challenges in academic writing, these difficulties are often managed through revision and the use of digital tools, which contribute to improving the clarity and quality of manuscripts before final publication.

These findings are consistent with the study of BENABDALLAH Sara (2024), which highlights a similar pattern of persistent linguistic challenges in academic and professional medical contexts. The study also emphasizes that difficulties related to English proficiency—particularly in grammar, vocabulary, academic style, and clarity—remain a significant obstacle in both medical education and scientific writing. Moreover, it underscores the increasing importance of English as

a medium for knowledge access and scientific communication, as well as the frequent reliance on revision processes and external support tools to overcome language-related limitations. Overall, both studies converge on the view that linguistic competence plays a crucial role in the quality and effectiveness of medical communication and academic publication.

3.3 Suggested Solutions and Recommendations

The findings of this study reveal that linguistic difficulties and limited academic writing competence represent major challenges for doctors attempting to publish research articles in national and international medical journals. Many participants reported problems related to grammar, academic style, scientific vocabulary, and the organization of research papers. Therefore, several solutions and recommendations are proposed to help doctors improve their academic writing skills and facilitate the publication process. These recommendations are directed to both doctors and journal editors in order to create a more supportive academic publishing environment.

3.3.1 Recommendations for Doctors

3.3.1.1 Strengthening English for Medical Purposes (EMP) Training Programs

Medical universities and healthcare institutions should provide specialized English for Medical Purposes (EMP) training programs for doctors and medical researchers. These programs should focus on improving medical terminology, academic vocabulary, grammar, and scientific communication skills. In addition, EMP courses should include practical activities related to writing research articles, abstracts, and case reports according to academic standards. Such training can help doctors reduce linguistic difficulties and increase their confidence when publishing research in English. It may also improve the overall quality and clarity of medical research papers.

3.3.1.2 Organizing Academic Writing Workshops

Academic institutions should organize regular academic writing workshops to help doctors develop their scientific writing skills. These workshops may provide guidance on structuring research articles, writing introductions and discussions, paraphrasing information, avoiding plagiarism, and responding to reviewers' comments. Participation in such workshops can help researchers better understand the conventions of academic writing and publication. Furthermore, practical training and feedback may encourage doctors to improve the organization and coherence of their manuscripts.

3.3.1.3 Providing Language Support Tools and Editorial Assistance

Doctors should be encouraged to use language support tools and editorial services before submitting their manuscripts for publication. These tools may include grammar correction software, plagiarism detection programs, academic dictionaries, and AI-based writing assistants. In addition, professional proofreading and editing services can help improve clarity, coherence, and grammatical accuracy. Using such support may reduce language-related errors and improve the readability of research papers. As a result, doctors may have better opportunities for publication in national and international journals.

3.3.1.4 Encouraging Collaboration with Language Specialists

Collaboration between doctors and English language specialists can significantly improve the quality of scientific writing. Language experts may help researchers improve sentence structure, academic style, coherence, and clarity while maintaining the scientific content of the study. This cooperation can be particularly useful for non-native English-speaking doctors who

experience difficulties in academic writing. Moreover, working with specialists may help researchers better understand the language expectations of international journals and produce more professionally written manuscripts.

3.3.1.5 Promoting Continuous Academic Writing Practice

Doctors should regularly engage in academic writing activities such as preparing conference papers, writing case reports, and participating in collaborative research projects. Continuous writing practice helps researchers become more familiar with the structure and style of scientific publications. It also contributes to the gradual improvement of vocabulary, organization, and writing fluency. In addition, regular practice can increase doctors' confidence and reduce anxiety related to publishing research in English.

3.3.1.6 Applying Theoretical Perspectives on Writing Improvement Strategies

Medical institutions should adopt theoretical approaches that support writing development, such as process writing theory and genre-based instruction. These approaches emphasize that academic writing is a gradual learning process that requires practice, revision, feedback, and awareness of disciplinary conventions. Applying such strategies may help doctors better understand how research articles are organized and evaluated in academic journals. Furthermore, these approaches can support the long-term development of academic writing competence and improve publication performance.

3.3.2 Recommendations for Journal Editors

3.3.2.1 Providing Clear and Detailed Author Guidelines

Journal editors should provide clear and comprehensive submission guidelines for authors. These guidelines should explain manuscript structure, formatting requirements, citation styles, and language expectations in a simple and organized way. Clear instructions can help researchers prepare their manuscripts correctly and reduce common writing mistakes. In addition, detailed guidelines may support inexperienced authors and make the submission process easier and more efficient. This can contribute to improving the quality of submitted manuscripts.

3.3.2.2 Offering Editorial and Linguistic Support

Medical journals should provide or recommend professional language editing and proofreading services for authors who face linguistic difficulties. Editorial support can assist researchers in improving grammar, sentence structure, clarity, and academic style before the peer-review process. Such assistance may reduce language-related problems and help authors present their ideas more effectively. Furthermore, linguistic support can increase the readability and professionalism of research articles and improve their chances of acceptance.

3.3.2.3 Organizing Academic Writing and Publication Workshops

Journal editors and academic institutions should collaborate to organize workshops and webinars on scientific writing and publication. These activities may focus on manuscript preparation, publication ethics, peer-review procedures, and strategies for successful publication. Such initiatives can help researchers gain a better understanding of academic publishing

requirements and avoid common mistakes. They may also support inexperienced researchers and encourage greater participation in scientific publication.

3.3.2.4 Encouraging Constructive Reviewer Feedback

Editors should encourage reviewers to provide constructive and supportive comments, especially regarding language, organization, and academic style. Instead of rejecting manuscripts only because of linguistic weaknesses, reviewers should guide authors toward improving their work. Constructive feedback can help researchers identify their mistakes and develop their academic writing skills. This supportive approach may also encourage authors to continue improving and publishing their scientific research.

3.3.2.5 Supporting Non-Native English-Speaking Researchers

Journal editors should recognize the challenges faced by non-native English-speaking doctors and evaluate manuscripts mainly according to their scientific contribution rather than minor language issues. Adopting a supportive editorial approach can encourage greater participation of international researchers in medical publication. In addition, providing flexibility and guidance may help authors improve their manuscripts without feeling discouraged by language difficulties. This can contribute to a more inclusive and diverse academic publishing environment.

3.3.2.6 Integrating Digital Language Support Technologies

Journals may integrate digital language support tools into their online submission systems to help authors identify grammatical, stylistic, and formatting errors before submission. These technologies may include grammar correction software, plagiarism detection tools, and AI-based writing assistants. The use of such tools can improve manuscript quality and reduce avoidable

writing mistakes. Moreover, integrating digital support technologies can facilitate the editorial process and save time for both authors and reviewers.

3.3.2.7 Applying Writing Development Perspectives in Editorial Practices

Editors are encouraged to adopt educational perspectives that view writing improvement as a gradual and developmental process. Genre-based and collaborative approaches may help journals create a more supportive environment for emerging researchers. These approaches encourage communication, feedback, and continuous improvement rather than focusing only on manuscript rejection. As a result, researchers may feel more motivated to improve their academic writing skills and participate more actively in scientific publication.

3.4 Scope and Limitations of the Study

The present study on “Investigating Linguistic Barriers Affecting Medical Researchers’ Publication in English” has several limitations that should be considered when interpreting the findings. Firstly, the availability of journal editors was limited within the local context, and those who were accessible often had restricted schedules due to professional commitments. This made it difficult to conduct interviews in a flexible manner and consequently reduced the amount of detailed qualitative information that could be gathered from this group of participants. Secondly, the study faced challenges in reaching medical doctors who publish research articles in English. In the Algerian context, many medical researchers tend to publish more frequently in French than in English, which significantly reduced the number of potential participants with direct experience in English academic publishing. As a result, this limitation affected both the range and diversity of responses obtained through the questionnaire.

In addition, data collection required frequent movement between Relizane and Oran in order to contact, reach, and meet participants. This process was often time-consuming and occasionally difficult, particularly in terms of coordinating availability and ensuring access to both doctors and journal editors. These practical constraints had an impact on the overall data collection procedure and limited the ease with which participants could be engaged in the study.

Finally, the study focused exclusively on academic writing and publication in English, as it was specifically designed to investigate linguistic barriers affecting the writing and publishing of research articles. Therefore, other related areas of academic language use were intentionally not included within the scope of this research. Despite these limitations, the study still offers valuable insights into the linguistic challenges faced by medical researchers in relation to academic writing and publication in English.

Chapter Conclusion

Ultimately, through a careful analysis and interpretation of the collected data, the present study has provided valuable insights into the linguistic barriers affecting medical researchers' publication in English. The findings highlighted that difficulties related to grammar, vocabulary, and academic writing style remain common challenges that influence the quality and clarity of research manuscripts.

Based on our findings, we offered several recommendations to enhance academic writing practices and support medical researchers in improving their publication outcomes. These recommendations mainly emphasize the importance of developing academic writing skills and encouraging the effective use of digital tools and artificial intelligence applications, such as ChatGPT, Grammarly, and DeepL, in order to reduce linguistic difficulties and improve the clarity,

coherence, and overall quality of research articles. They also highlight the need for continuous practice and targeted support to help researchers produce more accurate and publishable academic work.

General Conclusion

This study investigated the linguistic barriers faced by medical researchers at the Faculty of Medicine, University of Oran 1 Ahmed Ben Bella, when writing their scientific work in English. The main purpose was to understand how these language-related difficulties influence the quality of academic writing and, consequently, the chances of publication in national and international journals. Through a mixed-method approach combining questionnaires and semi-structured interviews, the research provided both quantitative and qualitative insights into the experiences of medical researchers and journal editors.

The findings of the study revealed that linguistic difficulties remain a significant challenge for many researchers. The most common problems identified include grammatical errors, limited academic vocabulary, terminology, and difficulties in using an appropriate scientific writing style. These challenges often affect the clarity, coherence, and whole structure of research manuscripts. As a result, even when the scientific content is strong, language issues may reduce the probability of acceptance in national and international journals. The results also showed that many researchers experience a lack of confidence when writing in English and frequently rely on digital tools and artificial intelligence applications to support their writing process.

In addition, the interviews with journal editors confirmed that language quality is an important factor in the evaluation of submitted manuscripts. Editors highlighted that poorly written articles often require extensive revision or may be rejected due to language-related issues, even when the research topic is relevant and scientifically valuable. This highlights the strong influence of linguistic competence on academic publishing success in an English-dominated scientific environment.

Despite these challenges, the study also revealed encouraging practices. Many researchers are increasingly using technological tools such as Grammarly, DeepL, and ChatGPT to improve their writing quality. These tools, when used appropriately, can help reduce errors and improve clarity. However, they cannot fully replace the need for strong academic writing skills and structured language training.

Based on the findings, it can be concluded that improving English academic writing skills is essential for enhancing the publication success of medical researchers. Strengthening language training programs, offering targeted workshops in scientific writing, and integrating English for Specific Purposes (ESP) courses in medical education could significantly reduce linguistic barriers. Furthermore, institutional support and continuous practice are necessary to help researchers produce clearer, more coherent, and publishable scientific articles.

This study also helped fill a gap in the existing literature by exploring the specific linguistic challenges faced by Algerian medical researchers in the context of academic writing and international publication, an area that remains insufficiently investigated in the local context.

In conclusion, while medical researchers at the Faculty of Medicine, Oran University possess strong scientific expertise, linguistic challenges in English remain a key obstacle to effective international scientific communication. Addressing these challenges through effective training, institutional support, and the responsible integration of digital tools can significantly enhance researchers' publication opportunities, academic visibility, and participation in the national and international scientific community.

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Appendices

Appendix A:

Questionnaire

Dear Participants,

This questionnaire aims to examine the linguistic challenges faced by medical researchers when writing research articles in the English language. All languages will be treated confidentially and used exclusively for academic research purposes.

➤ Section One: Biographic Information

- 1- Gender: ☐ Male ☐ Female
- 2- Years of experience in academic research and publication:
☐ Less than 5 years ☐ 5–10 years ☐ 11–20 years ☐ More than 20 years
- 3- What is your professional specialty?
☐ Medicine ☐ Dentistry ☐ Pharmacy ☐ Other (please specify):
- 4- Academic qualifications:
☐ Professor ☐ Associate Professor ☐ Lecturer ☐ Resident ☐ Other (please specify):
- 5- Have you ever received an English training course? ☐ Yes ☐ No

➤ Section Two: Publishing Experience in English

- 6- How did you learn English? “You may select more than one option”
☐ University program ☐ Training courses or workshops ☐ Private language schools ☐ Self-study ☐ Other (please specify):
- 7- How would you rate your level of English proficiency?

☐ Beginner ☐ Intermediate ☐ Advanced ☐ Near-native

8- Have you ever submitted a research article to an international journal published in English?

☐ Yes ☐ No

9- How confident do you feel when writing a research article in English?

☐ Very confident ☐ Confident ☐ Moderately confident ☐ Not confident

➤ **Section Three: Linguistic Challenges and Support**

10- Which aspects of English academic writing do you find most challenging? (You may select more than one option)

- ☐ Grammar and sentence accuracy ☐ Academic style and formality
- ☐ Organisation and logistics flow ☐ Article structure (e.g., introduction, discussion)
- ☐ Medical and scientific terminology

11- To what extent do linguistic difficulties affect the clarity of your research writing?

☐ To a great extent ☐ To a moderate extent ☐ To a small extent ☐ Not at all

12- Have any of your manuscripts been rejected or required major revision mainly due to language-related issues? ☐ Yes ☐ No

13- Do you think that language problems sometimes affect the scientific quality of your research?

☐ Yes, often ☐ Yes, sometimes ☐ Rarely ☐ No

14- In your opinion, do linguistic challenges reduce your chances of publishing in high-impact national and international journals? ☐ Yes ☐ No If yes, please specify:

15- Do you use any tools or resources to support your academic writing in English?

☐ Yes ☐ No If yes, please specify which tools or resources you mostly use:.....

16- How effective do you find these tools or resources in improving your academic writing?

☐ Very effective ☐ Effective ☐ Slightly effective ☐ Not effective

17- How do you translate your research articles into English?

☐ I write directly in English ☐ I translate them myself
☐ I use AI translation tools ☐ I ask an English teacher or a professional translator.

Thank you for your time and valuable participation.

Questionnaire French version

Chers participants,

Ce questionnaire vise à examiner les défis linguistiques auxquels sont confrontés les chercheurs médicaux lorsqu'ils rédigent des articles de recherche en langue anglaise. Toutes les informations linguistiques seront traitées de manière confidentielle et utilisées exclusivement à des fins de recherche académique.

Section Une: Informations biographiques

1- Sexe: ☐ Homme ☐ Femme

2- Années d'expérience en recherche académique et publication:

☐ Moins de 5 ans ☐ 5–10 ans ☐ 11–20 ans ☐ Plus de 20 ans

3- Quelle est votre spécialité professionnelle?

☐ Médecine ☐ Dentisterie ☐ Pharmacie ☐ Autre (veuillez préciser):

4- Qualifications académiques:

☐ Professeur ☐ Professeur associé ☐ Maître de conférences

☐ Résident ☐ Doctorant (PhD). ☐ Autre (veuillez préciser):

5- Avez-vous déjà suivi un cours de formation en anglais? ☐ Oui ☐ Non

Section Deux: Expérience de publication en anglais

6- Comment avez-vous appris l'anglais? (Vous pouvez sélectionner plus d'une option)

☐ universitaire ☐ Cours de formation ou ateliers ☐ Écoles de langues privées

☐ Auto-apprentissage ☐ Autre (veuillez préciser):

7- Comment évalueriez-vous votre niveau de maîtrise de l'anglais?

☐ Débutant ☐ Intermédiaire ☐ Avancé ☐ Proche du natif

8- Avez-vous déjà soumis un article de recherche à une revue internationale publiée en anglais? ☐ Oui ☐ Non

9- À quel point vous sentez-vous confiant(e) lors de la rédaction d'un article de recherche en anglais?

☐ Très confiant(e) ☐ Confiant(e) ☐ Modérément confiant(e) ☐ Pas confiant(e)

Section Trois: Défis linguistiques et soutien

10- Quels aspects de la rédaction académique en anglais trouvez-vous les plus difficiles ? (Vous pouvez sélectionner plus d'une option)

☐ Grammaire et précision des phrases ☐ Style académique et formalité

☐ Organisation et logique du texte ☐ Structure de l'article (ex. Introduction, discussion)

☐ Terminologie médicale et scientifique

11- Dans quelle mesure les difficultés linguistiques affectent-elles la clarté de vos écrits de recherche?

☐ Dans une grande mesure ☐ Dans une mesure modérée

☐ Dans une faible mesure ☐ Pas du tout

12- Certains de vos manuscrits ont-ils été rejetés ou ont-ils nécessité une révision majeure principalement pour des raisons liées à la langue?

☐ Oui ☐ Non

13- Pensez-vous que les problèmes linguistiques affectent parfois la qualité scientifique de vos recherches?

☐ Oui, souvent ☐ Oui, parfois ☐ Rarement ☐ Non

14- À votre avis, les défis linguistiques réduisent-ils vos chances de publier dans des revues nationales et internationales à fort impact?

☐ Oui ☐ Non-Si oui, veuillez préciser:

15- Utilisez-vous des outils ou ressources pour soutenir votre rédaction académique en anglais? ☐ Oui ☐ Non

Si oui, veuillez préciser quels outils ou ressources vous utilisez principalement:

.....

16- À quel point trouvez-vous ces outils ou ressources efficaces pour améliorer votre rédaction académique?

☐ Très efficaces ☐ Efficaces ☐ Légèrement efficaces ☐ Pas efficaces

17- Comment traduisez-vous vos articles de recherche en anglais?

☐ Je rédige directement en anglais ☐ Je les traduis moi-même

☐ J'utilise des outils de traduction IA

☐ Je demande à un professeur d'anglais ou à un traducteur professionnel

Merci pour votre temps et votre précieuse participation.

Interview

Semi-structured

- 1- What is your academic position? (Professor, Lecturer, Resident, PhD student, etc.)
- 2- In which contexts do you mostly use English?
(Reading articles, writing papers, conferences, communication with editors, etc.)
- 3- Have you ever submitted a paper to an international English-language journal?
- 4- How many research articles have you published in English?
- 5- What linguistic difficulties do you face when writing a research article in English? Grammar, Vocabulary, Medical terminology, Academic style, Coherence and cohesion.
- 6- Do you think your English proficiency affects the acceptance of your articles? How?
- 7- Have you ever been rejected because of your limited language skills?
- 8- How do you usually overcome linguistic difficulties when writing in English? Translation tools, Colleagues' help, Professional proofreading, AI tools (ChatGPT, Grammarly, etc.)