PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA

MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH

MOHAMED KHEIDER UNIVERSITY – BISKRA

FACULTY OF LETTERS AND FOREIGN LANGUAGES

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An Investigation into the Major Difficulties and Challenges Encountered by Medical Students When Learning English Language for Medical Purposes: The Case of Students of Medicine at Biskra University.

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June 2026

Declaration

I, Sirine **MERAZGA,** do hereby declare that this dissertation is my own original work that has been compiled in my own words. This work has not been falsified or used for other courses and examinations. Nor has another person, university, or institution for another degree or diploma previously, or concurrently, published it, unless explicitly acknowledged (In-text citation and the list of references).

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Dedication

First and foremost, I thank Allah for granting me the strength,

patience, and the guidance to complete this journey

I dedicate this work to my dear parents

Whose love, prayers, and endless support

Have been my greatest source of strength

To my family and loved ones

Thank you for your constant reassurance and understanding

To my best friend Madjda

Thank you for your patience, encouragement, and believe in me

To my friends

Hend, Fatima, Hiba

Thank you for the best academic years we spent together

To the one and only

Whose support made this journey

Softer, Lighter, sweeter, and full of meanings

Acknowledgments

I would like to express my sincere gratitude to the best professor that this University of Biskra has known Pr. Ahmed Chaouki Hoadjli, my supervisor and more, for his continuous support, valuable guidance, and constructive feedback not only during this master dissertation journey, but also during learning both Methodology and Academic Writing modules. I definitely acknowledge that his insights and encouragements were vital to the success of this work.

I would like to extend my sincere gratitude to our esteemed members of the Board of Examiners: Dr. Messouada Bendahmane, and Dr. Manel Triki, for accepting to evaluate this dissertation. I truly appreciate your time, effort, and academic guidance they have devoted to reviewing my work.

My sincere thanks go to the **Head of the Medicine Department** Dr. Fouad Djedou, at Biskra University, for allowing me to conduct my study, and also for facilitating the access to the necessary resources.

I would also like to thank the **Second-year Medical students,** whom without them I would not have done this research. They generously provided their time, energy, experience, and input to this study. I am especially thankful to their **'Delegate',** whose cooperation and assistance were truly appreciated.

Finally, I would like to thank all of my **teachers** for their dedication, and for the knowledge they have shared with us during my academic journey.

Abstract

The presented study investigated the major difficulties and challenges encountered by the Second-year Medical students at the University of Biskra, in learning English for medical purposes. Since it is the dominant language of medical literature, and communication among the medical community, the majority of Algerian medical students encounter many obstacles and challenges due to the multilingual nature of the academic environment, and the dominance of French as a medium of instruction in Algeria. In line with this research problem, this study aimed to identify the main linguistic and educational barriers and their impact of these students' prior language knowledge on their ability to learn medical English. It also sought to highlight the possible pedagogical strategies that can support their educational journey. Methodologically, a Qualitative Approach and a Case Study design were employed in this research. The latter were grounded in the interpretivist research paradigm. To collect data, semi-structured interviews and an unstructured questionnaire were employed. To analyze data, a thematic analysis method was selected to look for the most important patterns and themes in the experiences of 30 Second-year Medical students at Biskra University, who were chosen through a non-probability, purposive sampling technique. Findings revealed that these students were struggling with medical terminology, listening comprehension, and lack of exposure to English. All these challenges were supported by the curriculum that offered limited support for English learning. Consequently, the influence of French often led to many cognitive confusions and reduced their motivation. They emphasized the need for an engaging EMP course. This study recommends the integration of a specialized EMP course into the medical curriculum in Algeria to prepare the students for academic and professional success.

Keywords: English for Medical Purposes (EMP), medical students, multilingualism, medical terminology, curriculum support

List of Abbreviations and Acronyms

EMP: English for medical purposes

ESP: English for specific purposes

GE: Genera English

ELT: English Learning Teaching

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General Introduction

1. Background of the Study

English for Medical Purposes (henceforth, EMP), has become an essential component of the modern medical literature and education because English is considered today the primary language of scientific communication. Unfortunately, in Algeria, the dominance of French language in Higher Education, specifically in the medical field, presents a challenge for medical students. While efforts have been made to introduce English in all Algerian universities, many medical students still struggle with learning the language. It is believed that this is due to their multilingual educational environments, limited curriculum supports, and lack of exposure to the English language.

This study attempts to investigate the most common difficulties and challenges faced by the Second-year medical students at Biskra University when learning the English language for their medical studies. This study was guided by three importance key objectives: The linguistic difficulties that this medical students encounter, how these students' prior knowledge of French language as a medium of instruction in Algeria affects their English learning, and what strategies can be used to enhance their learning experience.

Ultimately, this study seeks to contribute to the field of English language for specific purposes (ESP) by contextualizing the learning language experiences of Algerian medical students. It looks for an urgent need to a tailor ESP course for medical purposes. In specific words, it aims to offer practical recommendations to support students' language development and inform future policymakers and curriculum designers on reforms and designs for medical education and multilingual contexts in the Algerian context.

2. Statement of the Problem

The importance and value of English language in technical fields like Medicine is crucial in terms of research and gaining knowledge, and even in communication with doctors or patients. The main problem is that English is being taught as a foreign language in Algeria. At Biskra University, students 'comprehension of medical terminology, academic performance and international communication, are all impacted by the language barrier.

It has been observed that the students of medicine face many difficulties concerning many aspects during their learning journey. Examples of these are: Learning the terminology, and/or reading articles for gaining knowledge. For these students even the simplest task could make the leaning process a challenge. It has also been mentioned that this language problem could also affect their academic performance, international contacts and interactions.

Therefore, this study aims to investigate the difficulties and challenges that medical students face during their medical journey within the use of English. Also, it attempts to analyze the impact of English as a foreign language in Algeria in technical fields. By addressing these challenges and difficulties, this research strives to help medical students overcome this language barrier, and also aids them to improve their academic outcomes both at international and national levels.

3. The Main Aim of the Study

The main aim of this study is to highlight the major difficulties and challenges encountered by medical students at Biskra University. More specifically, this research work selects to:

- identify the main difficulties that the students of medicine at Biskra University face when learning English language for their studies and future careers.

- understand these student's challenges and how their knowledge of French language can affect their learning of medical English.

- suggest some effective strategies to help these students overcome these difficulties

4. The Research Questions

This research seeks to answer the following research questions:

RQ1: What are the difficulties encountered by medical students at Biskra University?

RQ2: What are the main challenges encountered by medical students at Biskra University in learning English Language?

RQ3: How can the course of English language help medical students at Biskra University solve the difficulties and problems encountered by these students?

5. Research Hypotheses

Based on the abovementioned research questions, we propose the following research hypotheses:

RH1: We hypothesize that medical students at Biskra University face difficulties in learning English due to their limited English level, with difficulties in understanding medical terminology, communication, and reading academic texts.

RH2: We hypothesize that the challenges encountered by medical students in learning English are influenced by their prior knowledge of French language.

RH3: We hypothesize that an English language course designed specifically for medical students will improve their ability to overcome the problem of language proficiency level.

6. The Research Methodology for this Study

In the present study, regarding the nature of the study, the main research aim of the investigation, and the raised research questions, the study is qualitative in nature. The latter is grounded in the corresponding interpretive research paradigm. In line with the selected approach and the correspondent research paradigm, in this investigation, we opted for a Case Study Design. The choice of this research design aligns with investigating not only the linguistic challenges, but also the social and educational system problems that influence the students' academic performance. We selected this Case Study Design in order to set an in-depth comprehension of these difficulties and challenges.

As for the data collection methods, we chose two data collection methods. These are: a semi-structured interview, and an unstructured questionnaire. The aim behind the choice is to be able to enable the respondents in this study to express their views on the difficulties and challenges in learning English and their field of study. The latter would provide a clear picture on the reality they are encountering.

The target population in our research was the Second-year Medical students at Biskra University, during the academic year 2024-2025. The sample included 30 students for the questionnaire and six students for each interview. The students voluntarily participated in this study. The sampling technique used in this research was a non-random purposive sampling technique. Participants were selected based on their availability and willingness in purpose to provide in-depth information about the study.

7. The Significance of the Study

This study holds a significant value due to its focus on both academic and practical problems that Medical students face within the field of ESP, particularly in the context of the medical education in multilingual environments as in our country Algeria. Our focus on the Second-year Medical students seeks to highlight and explore a group of learners, who are unfortunately, despite their limited training in English language, are expected to engage with English language medical literature, research, and communication in healthcare locally or overseas.

The findings of the study are believed, to contribute in highlighting students' challenges, including the linguistic barriers, the influence of the French dominance in the Algerian curriculum, and the lack of an appropriate instruction for this field. This study can also help teachers, course designers, and policy makers to improve integrating and the quality of the English language education for the medical students in Algeria.

Ultimately, the results of this study would suggest that a special English course tailored for medical purposes is needed in order to help these students overcome such difficulties and challenges and become prepared for their future carriers.

8. Referencing Style of the Dissertation

The referencing style is a crucial component of the academic writing. All of the references of this dissertation are formatted according to the APA (American Psychological Association, 07th edition). The style was chosen due to its relevance to the nature of this study and its field of research.

9. Operational Definitions

English for Medical Purposes (EMP): It refers to the specialized use of the English language in terms of the medical field to better read medical literature, understand the medical terminology, and communicate in medical contexts.

Medical Students: It refers to the Second-year students of Medicine at Biskra University during the academic year 2024-2025.

Language Difficulties: It includes the problems which these students face in terms of understanding and using the English language skills like reading, writing, listening, and speaking in the medical contexts. Other issues also like the limited vocabulary, the grammar challenges, and comprehension issues are encompassed in this term

Multilingualism: It refers to the coexistence and the use of the multiple languages (Arabic, French, and English) in terms of the students' academic and social environments. Also, it is about its impact on their English language learning process is significant.

Prior Language Knowledge: It refers to the students' existing knowledge, and experience with the French language and the Arabic language before learning the English language.

Challenges: It refers to the non-linguistic obstacles that the medical students face while learning English language for medical purposes. It includes the curriculum related issues, the lack of practice and exposure, the ineffective teaching methods, the reduced motivation, and the impact of studying in French dominated academic environment.

10. Structure of the Dissertation

The dissertation is divided into four main chapters, along with the General Introduction and the General Conclusion:

Chapter One discusses the key concepts, in addition to the previous studies that are related to English for Specific Purposes (ESP) along with the English for Medical Purposes (EMP). It also highlights the challenges that these learners face in multilingual environments.

Chapter Two outlines how multilingualism and coexistence of Arabic and French languages influence the English language learning. It also investigates some specific language proficiency issues, in addition to the institutional and curriculum-based obstacles. Ultimately, it outlines some potential solutions.

Chapter Three explains the methodological framework of this study. It also presents the main methodological components, such as the Research Paradigm, Research Approach, Research Design, along with the selected data collection methods.

Chapter Four presents the analysis of the data collected from all participants using a thematic analysis. It is including the results obtained from the interviews and the questionnaire. This is followed with a discussion and synthesis of the findings.

Chapter One: English for Specific Purposes and Medical English

Introduction

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Chapter One: English for Specific Purposes and Medical English

Introduction

This chapter provides a description of English for Specific Purposes (ESP), with a particular focus on the Medical English. It is divided into four main sub-sections. The first sub-section presents some definitions, scope, and theoretical foundations of ESP. The second section addresses the importance and relevance of ESP in the field of medical studies. For the third sub-section, it highlights most linguistic features that characterize the Medical English. The fourth final section, examines the approaches and challenges in the teaching of ESP for medical purposes (EMP). All these sub-sections provide a description and an understanding of the roles of English in medical education and practice.

1.1 Definition and Scope of ESP

This sub-section introduces mostly the concept of English for Specific Purposes (ESP), pointing out its general definition and how it differs from the General English. It also traces the historical development of ESP, and outlines most of the main theoretical perspectives that have a role in shaping its emergence (Dudley-Evans & St John, 1998).

1.1.1 General Definition of ESP

English for specific purposes is about teaching English language as a foreign language to higher education students or people who already work in professional fields, which is again about meeting specific vocabulary and skills they need in their field of study or work. In other words, it means ESP is not about the whole package as general English (GE). It is about what the person only needs to communicate or write because the idea to learn ESP is to achieve the practical outcomes the person need in their field. The problems and perspectives of modern

technology in teaching foreign languages have been addressed in recent studies. Therefore, referring to the available literature, one can claim that, ESP is a branch of English Language Teaching, which is divided into two main branches: English for Academic Purposes as medicine, psychology, engineering, etc., and English for Occupational Purposes; for example, English used by technicians in different fields. In other words, English for Specific Purposes (ESP) basically focuses on teaching English language tailored to the learners' specific academic or professional needs, emphasizing the relevant vocabulary and skills, rather than the general language proficiency (Dudley-Evans & St John, 1998).
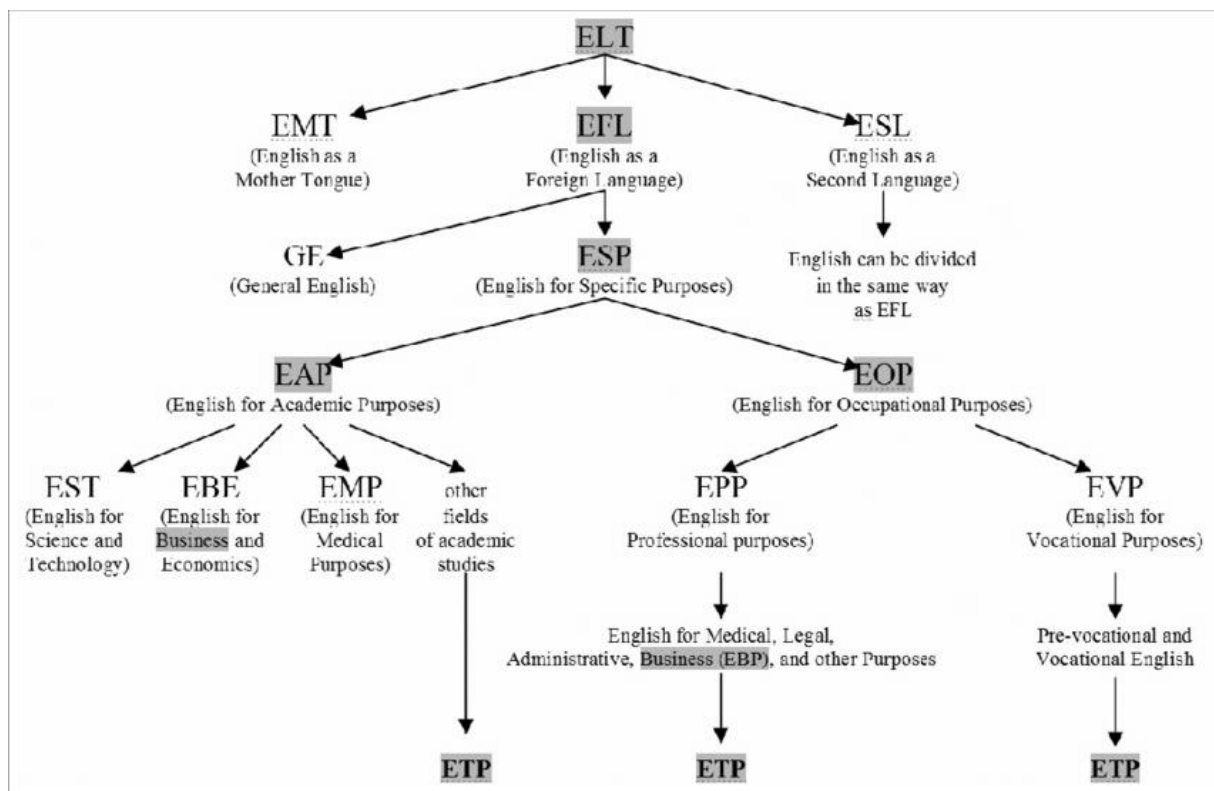
Figure 01 *Tree Diagram: ELT Assumptions About ETPs Within ESP*

This diagram represents the classification of ELT and the role of ETPs in ESP. From "Tree Diagram: ELT and Assumptions About the Place of ETPs Within ESP," by B.Beaven, 2015, *ResearchGate*

(https://www.researchgate.net/figure/Tree-diagram-ELT-and-assumptions-about-the-place-of-ETPs-within-ESP_fig1_287928942). Copyright 2015 by the author.

1.1.2 Differences between ESP and General English

There is definitely a difference when it comes to General English and English for Specific Purposes. Imagine walking into an English class, with two classrooms, and two different experiences. The first one, students are learning about casual conversations, introducing themselves, with a lot of different random topics. But in the other classroom, students are engaged in learning complex medical terminology and how to communicate with patients in a formal setting, also practicing language that aligns with their career (Hutchinson & Waters, 1987).

Both classrooms are teaching obviously English language, but the needs, objectives, teaching methods, and materials are totally different. This contrast highlights the difference in English language learning. In a general course the aims are broader in many aspects including grammar, vocabulary and especially topics, while an ESP course is much more narrowed. For example a student aging 12 cannot be interested in a management topic or course. In other means a course of marketing should be a reflection of marketing students in terms of vocabulary, grammar, study materials, and so on (Hutchinson & Waters, 1987).

To rephrase, the first difference between a general course and an ESP course are the aims. In a general course, the aims are broader in many aspects and the topics are for a narrow range. Unlike GE, ESP is tailored to a specific profession and uses a specialized vocabulary. ESP courses differ from the General English courses in their narrow focus on specific learner needs, specialized vocabulary, and the communicative situations tailored to particular disciplines or professions (Hutchinson & Waters, 1987).

1.1.3 Historical Development of ESP

The development of ESP has started back in the mid-20th century, after the WWII When trade, scientific industry, and international cooperation started to expand, English started to be the common language. According to, Hutchinson and Waters (1987) stated that "there are three reasons common to the emergence of ESP: The demands of a Brave New World, a revolution in linguistics, and focus on the learner" (as cited in Vanzsabasaje, n.d.).

In fact, WWII played a big role in the emergence of ESP. The emergence of ESP after World War II was driven by technological, scientific, and economic changes which created a demand for the English language tailored to specific academic and occupational fields. The 1960s and 70s saw the rise of register analysis, which eventually helped distinguish the specialized language use from the general English. The 1980s and 1990s witnessed the growth of needs analysis and the development of industry-specific courses, while the digital revolution and globalization in the 1990s further expanded ESP's scope and resources (Dudley-Evans & St John, 1998; Paltridge & Starfield, 2013).

There was a notable advancement in technology, science and international trade, which led to a need for international communication to make things easier. After this massive shift that the world witnessed, there was a huge need for specific English courses tailored for specific fields, in fields such as: Medicine, Commerce, and Engineering.

Another reason that contributed as a factor for the emergence of ESP was the Oil Crises of 1970's. Many oil rich countries witnessed a huge development in terms of knowledge and many other points. But most importantly, a new era of English Language Teaching, which is ESP emerge at that time. This new ELT approach was what had been

needed for a long time to address the issue mentioned on how people started to need specific tailored courses for specific professions (Paltridge & Starfield, 2013).

Therefore, another factor that played a role in the shaping and rapid growth of ESP was "The Revolution in Linguistics" during the 1960's and 1970's. The linguistic development was just a shift point, especially the register analysis which played a foundational role in shaping ESP. As it is known register analysis, is the study of language varieties based on different contexts. In other means, the focus lie on lexical and grammatical features specific to specific fields like science, medicine or business English. The first ESP courses were designed depending on the register analysis (Paltridge & Starfield, 2013).

Certainly, the register analysis had a significant influence on the development of ESP as a field. It helped in distinguishing GE from specialized English, emphasizing that university and professional contexts required different linguistic features. By the 1970's and 1980's, there were substantial developments in the English language teaching that resulted in the creation of ESP courses. This evolution was because of the growing need for tailored English Teaching and a shift towards communicative competence (Hyland, 2006).

Globalization and technological expansion during this period increased in multiple professional and academic fields. This expansion created a demand for English courses, and tailored specific disciplines, such as: science, technology, business, and medicine. General English courses were no longer enough to meet the specialized communication needs of these fields. Educators like Karl Drobnic were contributory in this movement, co-editing books such as "English for Specific Purposes: Science and Technology" in 1978, which addressed the specific language demands of technical fields. There was also a pedagogical move from traditional Grammar-based Teaching towards methods focusing on Communicative

Competence. This change was about enabling learners to use language suitably yet completely in natural settings (Paltridge & Starfield, 2013).

This change led to the emergence of communicative language teaching (CLT) in the 1970's and early 1980's. CLT emerged due to the deficiencies of traditional methods and the increased demands for functional language competence. It was during the 1970's and 1980's that English language teaching started a new revolutionary era with the introduction of ESP courses that would meet professional and academic requirements and a pedagogical shift towards communicative competence (Richards & Rodgers, 2014).

After this, in the 1980's and 1990's, ESP grew extensively, mainly in needs analysis and the development of industry-specific courses. It was during this period that researchers identified the necessity of adopting English language teaching to meet the specific needs of students in different academic contexts. This led to the development of systematic methods of determining learners' language needs, in other means, needs analysis (Dudley-Evans & St John, 1998).

Needs analysis was the starting point to creating ESP courses to ensure that the content and skills taught were relevant to learners' own contexts. This was a shift from general language teaching to more specific teaching, which made language learning for specific purposes more effective. From the data gathered and also from needs analysis, educators and curriculum developers created courses targeting the specialized vocabulary and communication skills used in specific industries. The innovation in needs analysis and industry-specific courses during the 1980's and 1990's significantly enhanced the field of ESP. By highlighting the learners' specific language needs, these innovations made English language teaching more relevant and functional to most professional and academic contexts (Dudley-Evans & St John, 1998).

During the 1990's, the ESP and language teaching disciplines have experienced a major change due to advancements in digital technology and the forces of globalization. The emergence of digital technology has brought ESP teaching into a new era of greater resources and accessibility. The creation of the World Wide Web in the early 1990's offered language learners and instructors more access to authentic materials and interactive settings. Tools such as Wikis and blogs emerged, facilitating collaborative learning and allowing the students to engage in real-time communication, hence improving their language skills in contexts. The incorporation of multimedia elements, such as audio and video enriched the learning environment to support varied learning needs and styles (Paltridge & Starfield, 2013).

Globalization has significantly increased the relevance of ESP in both academic and professional contexts. As institutions and businesses are going global, the need for industry-specific English skills has grown. This phenomenon known by the term "Englishization" reflects the widespread adoption of English as a global lingua franca, particularly in organizational contexts, aiming to compete in a globalized society. Thus, ESP courses are now an integral part in preparing individuals to utilize language effectively and communicate with it within their specific professional domains, addressing the need for industry-specific vocabulary and communication skills (Ammon, 2010).

The integration of digital technology and the effects of globalization have both transformed ESP teaching and learning. The development has produced more interactive and industry-relevant language education, equipping learners with the necessary skills to navigate the complexities of global communication in their specific fields (Paltridge & Starfield, 2013).

1.1.4 Theories and Approaches in ESP

ESP is a sub-discipline of language teaching that focus on teaching English tailored to the specific needs of learners within a particular professional or academic environment. Several key theories and approaches underpin ESP, including Needs Analysis, Genre Analysis, and the Development of effective strategies (Hyland, 2006). A description of these components is presented in what follows:

Needs Analysis

Needs analysis is a part of ESP that involves the systematic assessment of learners' specific language requirements. By this process, the curriculum and objectives of ESP courses align very closely with the actual needs of the learners, thus making the learning more relevant and effective. By identifying the specific language skills and competences required in a learner's target environment, teachers can design courses that address such needs directly (Richards, 2001).

Genre Analysis

Genre Analysis examines the shape and nature of texts within a specific context to understand how language functions in various settings. Genre analysis in ESP helps teachers identify conventions and expectations of various forms of texts relevant to specific fields. This understanding helps teachers design teaching materials that prepare learners to produce and comprehend texts suitable for their professional or academic disciplines. Examples of this is analyzing a research paper in a certain discipline can reveal linguistic features, which can then be taught to students aiming to engage with such texts (Swales, 1990).

Communication Strategies

Effective Communicative Strategies in ESP would be a learner essential for proper conveying and interpreting messages in specific contexts. This involves teaching learners how to use language appropriately in various situations, considering elements like the audience, purpose, and cultural norms. With reference to the pragmatic aspects of language use, ESP courses equip the learner with the skills needed to navigate real-world communication demands in their concerned fields (Bhatia, 1993).

Key principles of ESP

There are several underlying principles that guide the design and implementations of ESP courses include authenticity, research-based content, specific language/text focus, needs-based approach, and appropriate learning methodology. By the application of such principles and through the use of a diversity of approaches like needs analysis and genre analysis, ESP programs have the capacity to provide focused and effective language training that enables learners to achieve their specific professional and academic goals (Dudley-Evans & St John, 1998). In what follows, we shall present some of these principles:

- **Authenticity** is using real materials and situations within the process of learning to make the learners work with the language as it is actually used within their target environments.

- **Research-Based Content** is developing course materials in a comprehensive research into the language use and requirements of a particular discipline or career so that teaching is based on real language use.

- **Specific Language/ Text Focus** is directing attention to the particular linguistic characteristics and text types that learners will encounter in their target environment, so they can develop pertinent and functional language ability.

- **Needs-Based Approach** is shaping teaching to the needs identified for learners, so that what is learned and taught is applicable in their specific objectives and circumstances.

- **Appropriate Learning Methodology** is employing teaching methods and strategies that cater to the need and preferences of the learner and the specific requirements of the language tasks they will perform, and therefore effective and purposeful learning experiences. By the application of such principles and through the use of a diversity of approaches like needs analysis and genre analysis, ESP programs have the capacity to provide focused and effective language training that enables learners to achieve their specific professional and academic goals.

1.2 The Importance of ESP in Medical Studies

English for Specific Purposes (ESP) is crucial in the medical education as it prepares learners and professionals with the language skills that are required and necessary for learning, research, and communication. Medicine is a professional profession, and thus generic English language skills are not sufficient; learners must learn medical vocabulary, academic writing, and communication skills to succeed in their career (Ammon, 2010).

1.2.1 The Role of English in Medical Education

Many medical programs use English if not most of them use English as the medium of instruction (EMI), enabling students to engage with teachers, taking examinations, and prepare learners for global opportunities as exchanging programs. This has been motivated by the growing availability of medical literature in English and the necessity for doctors to practice across borders (National Center for Biotechnology Information [NCBI], 2022).

A key reason for the widespread use of English in medical education is that most medical educational materials such as textbooks, journals, and clinical guidelines are published in English. This means that students and doctors must be proficient in the language if they want to stay up to date with the new developments in medicine and evidence-based practices (NCBI, 2022).

1.2.2 The Need for English in Medical Research and Publishing

English is the universal language of scientific research, and it is necessary for medical students and researchers who wish to contribute to scientific advancement. The majority of high-impact medical journals only publish articles in English, meaning that researchers need to be competent to write and present their results in English language. Without English proficiency, researchers and doctors may face many difficulties. They cannot get their work published, and thus their contribution to the scientific community is hindered (Flowerdew, 2013).

Moreover, it is simpler for researchers to use international databases in English. The largest medical research gates such as Pubmed, Scopus, and web of science are based mainly in English, making it difficult for non-English speaking researchers to stay up to date. Being proficient in English not just makes it easier to comprehend posted literature; it also ensures that research findings reach a global audience (Ammon, 2010).

1.2.3 ESP and Doctor-Patient Communication

Effective communication between doctors and their patient is very important for a proper treatment and diagnosis. English serves as a common language in multilingual healthcare settings, to facilitate communication between doctors and patients from diverse backgrounds. Research has shown that language barriers can negatively impact patient satisfaction, lower adherence to treatment, and even cause medical errors (NCBI, 2022).

Aside from communicating with patients or in the healthcare environment, doctors are also required to effectively communicate and exchange informations with colleagues, nurses, and other medical staff. English proficiency in multilingual healthcare environments is essential, because it guarantees smooth exchange of informations, and minimize misunderstandings. The medical practitioners who lack English proficiency may find it difficult to communicate, discuss cases, exchange medical reports, or follow complex treatment protocols (Seidlhofer, 2011; Flowerdew, 2013).

1.2.4 English as a Lingua Franca in International Medical Conferences

English is as known the official language of most if not all medical conferences, seminars, and workshops. As it has been shown that medical experts who can effectively present their research in English gain more exposure and professional credibility. Proficiency in English helps doctors or scientists communicate more with other professionals across the world (Jenkins, 2007).

English is a part of the medical education, research, communication, and international professional developments whether in career or academic journey. As learning resources, published research, communicating with patients in multilingual healthcare environments, or attending international conferences are mostly in English. Doctors, medical professionals, medical staff, and students must be proficient in English. Giving its significance, many

universities must incorporate English for Medical Purposes (EMP) courses so that future doctors can better handle the job demands (Ammon, 2010).

1.3 Characteristics of Medical English

This section examines the distinctive linguistic features of most Medical English. Also it covers some elements such as terminology, word origins, the grammar style, and the differences between the spoken and written discourse in the medical contexts (Biber, Connor, & Upton, 2007).

1.3.1 The Use of Technical Terminology in Medical English

Medical English is built in a technical vocabulary base that provides precision and consistency in healthcare communication. Medical practitioners, nurses, and researchers use specialized language to explain diseases, treatment, procedures, and anatomy. Unlike everyday language, these words posses precise meanings that prevent misunderstandings in patient care and medical research (OneWord, n.d.).

The importance of medical terminology lies in its capacity to provide a universal standard that enables health practitioners from various linguistic backgrounds to communicate appropriately. Many medical terms originate from Greek and Latin, forming a structured and organized system for defining conditions, organs, and procedures (Transcend with Words, 2022). Medical practitioners employ these terms to diagnose disease, prescribe medication, and documenting medical findings.

The primary role of medical terminology is to ensure clarity, accuracy, and efficiency in medical communication. Health practitioners use precise words to tell us about illnesses, treatments, and anatomy, reducing the risk of errors when utilizing wrong or confusing words.

An example would be the usage of the term "hypertension" used in medical facilities instead of the general phrase "high blood pressure" because it carries a precise medical definition and is recognized globally (OneWord, n.d.).

1.3.2 The Influence of Latin and Greek in Medical Terms

Latin and Greek are the foundation of most medical vocabulary due to their historical dominance in science and medicine. Many medical terms are driven from Greek and Latin. They used these ancient languages to name diseases, body parts, and treatments, which they are still using them till today. Greek and Latin contribution to the medical field in terms of terminology used in medicine is different. Greek is the basis of many disease names, medical conditions, and anatomical terms known nowadays. The term cardiology comes from the Greek words kardia which is heart and logos which is study, "The study of the heart" (Transcend with Words, 2022). Also the term neurology comes from neuron, which is nerve and logos which as we clarify before study, which refers to the study of the nervous system.

Before English became the dominant language of science and medicine, Latin was the dominated language and Greek they shaped the conventions of medical, as well as the scientific writing for over 2,000 years. For example, the Greek term *diabetes mellitus* literally means "flowing through/sweet as honey," which, most probably, initially referred to the sweet odor of the urine of a person with diabetes. The terminology for medical conditions that was developed by Greek doctors continues to be the basis of our classifications of diseases. (Transcend with Words, 2022).

Apart from Greek and Latin, Arabic also played a big role in medicine due to the expansion of the Arab empire in the 7th century. One of the greatest Arab physicians was 'Ibn Sina' in 10th-11th century. One of his famous medical works was 'The Canon of Medicine'. It

was a standard medical text for many universities until the 17th century. Many Arabic words were used and entered English through Latin including the known words like alcohol, alchemy, alkali, nitrate (Hanna, 2013; Al-Said, 2014).

1.3.3 Grammar and Words Structures in Medical Texts

The word formation in medical terminology is formed in a Greek Latinized form due to the expansion of medical science during the last two centuries. Almost half of the used medical terminology is based on Greek and Latin (Blankenship, 2021).

Medical Terminology

-Medical terminology is the words that make up the language of medicine.

- The majority of medical terms are based on Latin or Greek.

Greek word	Latin word
Kardia (heart)	Cardi
Gaster(stomach)	Gastr
Hepar (liver)	Hepat
Nephros (kidney)	Nephr
Osteon (bone)	Oste

Figure 02 *Prefixes, Suffixes, and Combining Forms in Medical Terminology*

This figure illustrates medical terminology elements. From "Medical Terminology Part 1: Prefixes, Suffixes, Combining Forms," by SlideShare Contributor, n.d., SlideShare (https://www.slideshare.net/slideshow/medical-terminology-part-1-prefixes-suffixes-combining-forms/53929493).

There is a common phenomenon that occurs in most languages, which is the Doublet Phenomenon. According to Transcend with Words (2021), Often a result of chronologically separate borrowings from two related languages, doublets tend to have different phonological forms, but the same etymological root. The synonymous pairs usually diverge in meaning, or register, at least to some extent. For example, English abdominal and belly are such doublets, the former being a more specialized medical term, while Germanic belly, c. 1200, precedes the Latin borrowing abdominal, c. 1550s".

Also, the source notes that "Latin and Greek medical terms tend to combine elements from either language. In fact, the essential part of such a medical term is called the combining form, which is the sum of the term's root and a combining vowel that links the root to the term's another root or suffix" (Transcend with Words, 2021).

Medical terms are formed in different components, roots, and affixes: suffixes and prefixes, and combining form or combining vowel (o/i) + root, most medical terms are made of a root and one or more affixes. The root is the main part in the word because it's about the meaning of the term as we mentioned before the medical term Cardiology (Blankenship, 2021).
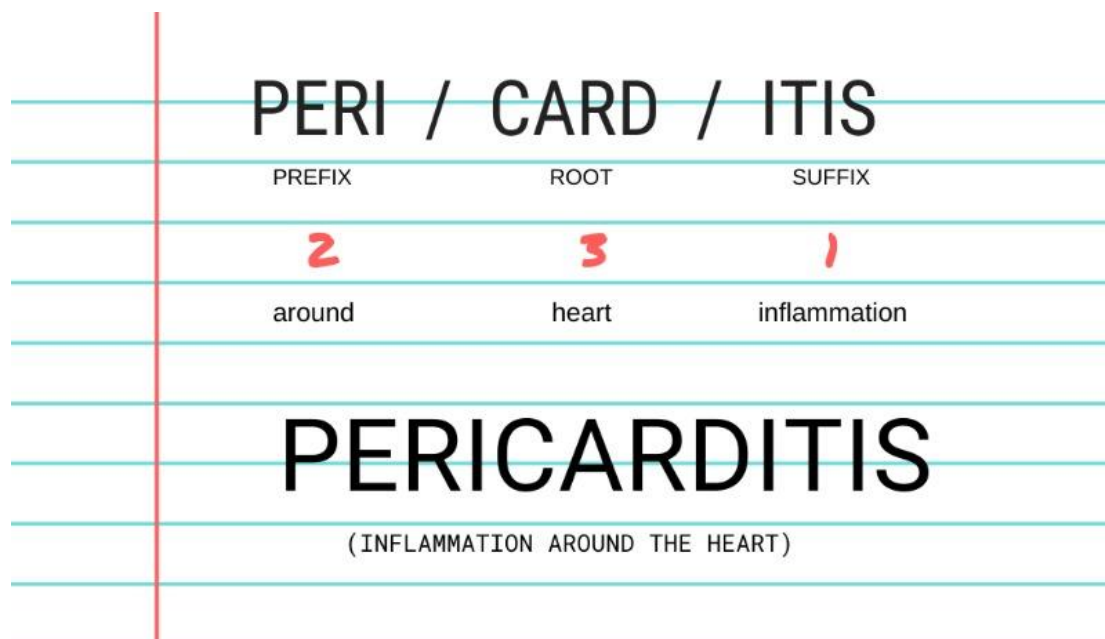
Figure 03 *An example on the combining terms with root, prefix, and suffix*

This figure illustrates how medical terms are combined using roots, prefixes, and affixes to form medical terminology by Transcend with Words (2021)

(https://www.transcendwithwords.com/post/medical-terminology-greek-and-latin-origins-and-word-formation-guidelines).

1.3.4 Differences Between Spoken and Written Medical English

There is a difference between spoken medical English and written medical English in terms of formality. Whereas the spoken form is more informal, narrative, and also interactive in terms of patient communication and team discussions, the written form is and must be formal, explicit, and organized for research papers and patient records because written texts or form of medical English requires proper and formal grammar and structure (Flowerdew & Peacock, 2001; McCarthy & Carter, 1994).

1.3.5 Common Medical Abbreviations and Acronyms

Doctors, pharmacists, and other healthcare staff use abbreviations. Abbreviations are widely used to save time but they require familiarity with practice to avoid miscommunication and errors. Below is a "A-Z list of common medical abbreviations provides an extensive list of frequently used abbreviations in healthcare settings" (MedicineNet, n.d.)

- **ALL:** Acute lymphoblastic leukemia.
- **AMI:** Acute myocardial infarction (heart attack)
- **B-ALL:** B-cell acute lymphoblastic leukemia
- **FSH:** Follicle-stimulating hormone. A blood test for follicle-stimulating hormone is used to evaluate fertility in women.
- **HAPE:** High altitude pulmonary edema
- **HPS:** Hantavirus pulmonary syndrome. A type of contagious, infectious disease is transmitted by rats infected with the virus.
- **IBS:** Irritable bowel syndrome (A medical disease that involves the gastrointestinal tract.)
- **IDDM:** Insulin-dependent diabetes mellitus. Type 1 diabetes.
- **MDS:** Myelodysplastic syndrome
- **NBCCS:** Nevoid basal cell carcinoma syndrome
- **PE:** Pulmonary embolism. A type of blood clot in the lungs.
- **SIDS:** Sudden infant death syndrome
- **TSH:** Thyroid-stimulating hormone. A blood test for TSH is used to diagnose thyroid disease.

1.3.6 Effective Medical Writing

There are several common errors that make medical writing difficult to read. One of the errors is not expressing the message of the sentence clearly. If there is no clear subject, verb, adverb, this can lead to misunderstandings. Another common error is the overuse of noun clusters or noun strings. They make the sentence hard to read with some ambiguity. This error usually happens in medical writing when describing a process, condition, or even diagnosis reports. Also, the overly use of run-on sentences. The reader may struggle to follow the sentence's meaning. Another mistake is using unclear antecedents. This happens when a pronoun like 'this', 'it', 'they', or 'which', does not clearly refer to a noun. This will lead usually to confuse the reader and misinterpretation in medical writing. In addition, the improper use of prepositions phrases is also a common error. The improper use of them can make the sentences wordy, confusing, and grammatically incorrect. Additionally, Grammar errors are another common error. This can reduce clarity and accuracy (Gopen & Swan, 1990; Day & Gastel, 2012).

To avoid these mistakes in medical writing, we need to express actions and movements clearly with using verbs instead of relying on nouns, prepositions, and vague constructions. Also, we should use verbs instead of nouns. Another advice is using verbs instead of objects. Additionally, we should not overuse of preposition phrases. Besides that, using "there is" more often is unnecessary. As well, we should use verb-adjective combinations, instead of using adjectives. Furthermore, we should use participles instead of nouns (Gopen & Swan, 1990; Day & Gastel, 2012).

1.4 Teaching ESP for Medical Purposes

The final sub-section discusses the pedagogical aspects, which are related to teaching ESP to medical students. Also, it includes some considerations for the course design, the integration of technology, and practical tools like case studies and simulations (Hyland, 2006; Basturkmen, 2010).

1.4.1 The Role of Technology in ESP for Medical Students

Over the past few years, technology has gradually proved to have a substantial role in English for Specific Purposes (ESP). Despite the increasing importance of English in the professional world, there is still a strong need to examine how technology can improve the acquisition of medical terminologies and the development of communication skills for professionals in medical and paramedical sectors. The capacity to communicate in English in the healthcare field is a critical skill. At the international level, healthcare professionals are required to communicate with patients, colleagues, and researchers for professional development and knowledge improvement purposes (Akihiko, 1970).

This skill is even more critical for professionals whose native language is not English. As in other domains, students or professionals in the medical domain have to show proficiency in English. However and more than a proficient level in the language, this specific English (often referred to as Medical English) turns out to be a quasi-essential condition to understand, learn or work properly in medical disciplines. Adding Technology to learning a language represents a promising way to improve vocabulary learning and language proficiency (Godwin-Jones, 2011; Kukulska-Hulme, 2012).

Despite the limitations of studies in the field, several technologies now offer interesting tools for the language learning and the customization of learning content is one of

the best solutions to tailor a training that specifically fits the learner needs (Jain et al., 2022). In this sense, the online platform is particularly interesting for ESP since it can be possible to compose its training sessions based on its own topics of interest.

In the medical domain, skills in medical English are related to two fundamental issues. The first refers to the mastering of medical terminologies in English that is necessary to study medical papers and join an international medical community. The student learns to translate the medical text class that he found online. The analysis of the text can then be gathered into a multiple choice question and submit it to the partner. The performance of the translated text must then be formatted in a list. A major effort has been made in the generation of a large variety of texts to prevent the partner from understanding beforehand the question and being ready of the translation (Godwin-Jones, 2011).

Conclusion

This chapter provided an overview of English for Specific Purposes (ESP). This includes focusing on its definitions, the historical background, and its theoretical underpinnings. Also, it discussed the significance of ESP in the medical educations, most complex linguistic features of Medical English, and the pedagogical approaches used in teaching it. All these insights established a foundational and in-depth understanding of the role that English plays in the medical field.

The following chapter will discuss the most practical realities faced by Medical students. It also will highlight the common challenges these students will encounter in learning English for Medical purposes.

Chapter Two: Common Challenges Encountered by Students of Medicine in Learning

English Language

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Chapter Two: Common Challenges Encountered by Students of Medicine in Learning

English Language

Introduction

This chapter outlines most of the key challenges faced by medical students in terms of learning English language. It is divided into four main sections. The first section examines how multilingualism, particularly the coexistence of Arabic and French, influences English language learning. The second section covers some specific language proficiency issues, which are encountered by Medical Students. The third section addresses the institutional and curriculum-based obstacles. Finally, the fourth section, it presents many potential solutions in order to mitigate such challenges, and enhance English language learning in medical contexts.

2.1 The Influence of Multilingualism on English Learning

This section describes the linguistic environment of the Algerian medical students with a main focus on how their native language (Arabic) and their second language (French) impact their learning of English language. It also addresses the phenomena of code-switching, language interference, and the socio-psychological factors in multilingual learning.

2.1.1 Arabic as the Native Language and Its Influence on Learning English

Arabic and English languages are two different languages. They have several major differences in how they are written, spoken, and even structured. The differences in these two languages may make it hard and difficult for Arabic-speaking students to learn English language effectively. Some challenges are the problems with pronunciation, sentence construction, and the understanding of what they read and hear. For medical students

understanding English language is important to gain academic success (Al-Issa, 2006; Mahfoudhi & Ben Abdesslem, 2020).

Although, very few studies that showed an interest at how people learn more than two languages, the existing research showed that the education systems around the world are in their way toward supporting the multilingual classrooms. However, many studies still focus on comparing one's first language (L1) with just one foreign language (L2), which is often English language, in addition to conducting them in bilingual and not multilingual settings (Grosjean, 2010; Cenoz & Gorter, 2011).

For example, in some non-native countries, students experience a multilingual learning environment, Arabic is the native language, French is taught as a second foreign language from an early age, and for the English language it is added as a global communication tool. The importance of learning English language has grown due to its strong connection with technology, global communication, and the access to information. As a result, English language has soon become the main foreign language that the students learn alongside with Arabic language (Bouchhioua, 2016).

2.1.2 The Role of French as a Second Language and Its Impact on English Learning

In some parts of this world, students learn French language as a second language from a very young age. Schools in these countries include French language in their curriculum, starting from pre-kindergarten which means (around 4 to 5 years old), and continuing like this till the high school. This particular educational approach was influenced by the cultural exchange with other countries. When these students reach high school, they began learning some subjects in French. The most important thing is that the language that is used to be the main teaching language of each subject changes at the end of every academic period. This

means these students must adapt themselves to learning the science subjects like biology,

chemistry, and physics all in French language (Alexandra Botero-Restrepo et al., 2018).

2.1.3 Code-Switching and Language Interference in Medical English

One important finding was that children who are fluent in their mother tongue tend to

learn English faster. That is, especially, true for those who smoothly switch between two or

more languages. English language will also be the dominant language in the future. Thus,

multilingual people will frequently find that they will learn it better. In the present days, we

try to understand how students use their mother tongues in English classes. The phenomenon

of multilingualism, or the ability to speak more than one language fluently, adds an interesting

variable to the classroom. Consequently, Code-switching effectively has become one of the

role models where students know how to implement it effectively (MacSwan, 2017; Muysken,

2000).

Moreover, language interference occurs when direct English translation does not align

with Arabic medical expressions and terms, putting in mind that English is the medium of

instruction of many medical institutions, Departments, and schools. This linguistic

phenomenon happens when students, doctors, or any healthcare practitioner are explaining

complex medical terminology, or using this language during medical consultations, especially

in multilingual environment (Al-Issa, 2006; Mahfoudhi & Ben Abdesslem, 2020).

Code-switching often occurs in Arabic-speaking regions due to the lack of effective

English learning for medical practitioners. They may face difficulties when explaining or

diagnosing patients in such areas. According to Alnahdi et al., (2021), study demonstrated that

students' confidence in Arabic is not optimal. However, the overall difficulty appears to be

easy for the students. Students also agreed that implementing Arabic in their communication

skills courses would be beneficial for their Arabic communication skills in their medical practice. Therefore, a gradual implementation of the Arabic language to the communication courses is recommended along with preserving the use of English as it is the international language of science.

2.1.4 Psychological and Social Factors Affecting Multilingual Learners

The medical students, who are learning English language as a foreign language, may face psychological and social difficulties that can make their learning harder. Examples are: One of the common psychological issues is often stress or anxiety, for example, when learning difficult English medical terms. Also, the students who are not confident in their English skills may feel overwhelmed, which will eventually slow down their ability to understand, and remember new information. Another problem they may face is low self-confidence, because some students sometimes are afraid of making mistakes, and being judged. This will eventually stop them from speaking English language in class, or even practicing it in real life. In addition, memory overload is an important concern, for example studying medicine is already very demanding; and when the students are required to learn the English language at the same time, it can be too much to handle (Horwitz, 2001; MacIntyre & Gardner, 1991).

Another social factor concerns code-switching. It is common in multilingual environments. Some students often mix their native language with English language, especially when they do not have or know the right word. This issue can slow down their progress in learning effectively English language. Additionally their social expectations can create a pressure. Students often feel that they must speak a perfect English to avoid the embarrassment. Also, the cultural differences can affect one's communication; some medical students might struggle to understand the Western communication styles. This will lead to

some misunderstandings during the patient interactions, or presentations (Dewaele & Wei, 2013; Kramsch, 1998).

In short, these psychological and social factors have certainly a strong influence on how the students can learn a foreign language. As Mae Rdgers (1978) stated that one of these important factors, is ethnocentrism. This simply means that some learners focus too much on their culture, and do not help learners learn about other cultures. As a matter of fact, the students who hold negative attitudes or they feel disconnected from the new culture, they often find it hard to continue learning the language. Overtime, this type of learners will return. to use only their native language, which will, as result, affect their ability to improve their skills in English language. On the other hand, when learners feel accepted and supported, they are more likely to succeed in learning the new language.

2.1.5 Multilingualism and Its Impact on Medical Communication

Nowadays, it is assumed that young people tend to speak a fluent English language. But this idea is far from being a reality as Mlambo (2017) explains, even in Europe, a large number of people are still struggling with the strong English skills. It is more like a myth than a fact because assuming that everyone is good at English language is misleading and also dangerous, especially, in terms of the medical field, where a clear and accurate communications are vital.

Some people may believe that language skills will automatically get better when people are under pressure or when they are forced to use language. But this is not always, of course, true because if someone just speaks more than one language, it does not mean they can use English very well, especially, in the medical settings. Additionally, medical communication is very complex and may require more than just basic knowledge of English

language. It necessitates courtesy, confidence, and a deep understanding of both the language and medical content (Seidlhofer, 2011; Flowerdew, 2013).

In Europe and many other places, people often learn new languages primarily for practical reasons, such as finding better jobs or communicating with more people. While this approach may seem beneficial for some individuals, it often results in language learning that focuses solely on surface-level skills. This kind of learning is usually done for formal classroom settings, with little attention to the real life that is needed or required for medical professionals (Cenoz & Gorter, 2011).

In today's world, where information and people move quickly across borders, education systems are often expected to respond. Many institutions, unfortunately, rely on outdated teaching methods and ignore the problem itself instead of creating a strong, supportive program that meets the needs of multilingual learners. As a result, this may create serious gaps in training, so even though English is the language of science, medicine, and many other fields, students are often left with weak support and unrealistic expectations for the real world. They are expected to succeed in the English language without being given the tools to do so (Grosjean, 2010; Mahfoudhi & Ben Abdesslem, 2020).

The idea that multilingualism alone can help medical students succeed in English language is overly simplistic. It hides the real problems and issues that lead to this week's educational support. Additionally, institutions should not assume that students are already proficient and instead provide them with practical solutions that align with real-life contexts (Seidlhofer, 2011; Paltridge & Starfield, 2013).

2.2 Language Proficiency and Learning Difficulties

This section covers some specific linguistic challenges experienced by Medical students. These include issues in grammar, pronunciation, comprehension, terminology, translation, the productive skills, and learners' confidence in using English language in medical settings.

2.2.1 Common Grammar and Syntax Issues Faced by Medical Students

Being able, as someone, to communicate clearly and accurately in medical setting is not only a matter of being useful, but it is an essential thing. Particularly in a medical setting, minor linguistic errors can result in significant misinterpretations and medical errors. Yet, so many international medical students still struggle with the grammar and sentence structures in the English language. This problem continues to be overlooked, unfortunately, and it is often assumed that students will pick up the language that they need as they study medicine, but of course such optimism is both unrealistic and unfair. All medical students are expected to muster a huge amount of medical knowledge, and also, they are supposed to understand and use the foreign language fluently. Unfortunately, educational policies and teaching practices rarely acknowledge this issue (Flowerdew, 2013; Mahfoudhi & Ben Abdesslem, 2020).

Setyonugroho and Permana (2015) emphasize that poor English language proficiency hinders the academic learning level and puts the patient's life at risk. The students cannot fully understand what is being told and cannot explain a diagnosis clearly. The consequences will be serious and put the people's lives in danger. Despite this risk, students often treat grammar and syntax errors as minor issues or ignore them. As a result, this situation will create a false sense of security, leading the students to believe that their English language skills are sufficient, while in reality, their communication abilities remain underdeveloped.

Furthermore, the students who cannot speak English language fluently will often rely on guessing, repetition, and avoidance when communicating. This can work temporarily for them in the classroom but not in the real clinical practices, where clear, accurate, and confident communication is important. It is important to realize that programming and sentence constructions are not just language issues or difficulties. They are safety risks in medical environments and may as a result; put so many people's lives in danger. When a student misuses grammar while explaining or describing a treatment, it can lead to misunderstandings and potentially harmful outcomes (Flowerdew, 2013).

Even when the students do understand the course contents, they may still struggle to express it in proper English. Reading and understanding English materials is one thing, but speaking and writing about them correctly is another. Unfortunately, many medical programs fail to teach these skills in practical settings. As Setyonugroho and Permana (2015) explain, precise language use may directly affect the learning outcomes and examination performance. But despite this fact, most language teaching remains too general, leaving students underprepared for real-world tasks.

This issue or filler to address the grammar and syntax issues reflects a broader problem in medical education because the belief that the language skills or the language skills in general are secondary or will improve automatically by themselves is not only incorrect, but it is also irresponsible. Clear language must be seen as a core medical skill, not just an optional thing, and the medical institutions must stop ignoring these language gaps; instead, they must take real steps to support the students in mastering the grammar and structure of the medical English language (Mahfoudhi & Ben Abdesslem, 2020).

2.2.2 Challenges in Pronunciation and Listening Comprehension

It has been argued that many international medical students arrive without the level of English proficiency required by these institutions for success. This is one of the major problems that the institutions continue to overlook. This limited comment of language not only may affect the classroom learning but will also create a serious communication barrier in the clinical settings in the future. It is a big issue that grammatical and pronunciation errors that may directly affect and harm the patients' safety are still not given the attention they deserve (Flowerdew, 2013; Harding et al., 2012).

Djiwandono (2017) show how grammatical and syntactical errors are very common and harmful, but they are often ignored by instructors, institutions, and examiners. The students may be able to understand the medical consents to some degree, but they often struggle to express the ideas clearly and accurately. Often in oral examination, clinical discussions, or patient consultations, these weaknesses and difficulties may lead to confusion, hesitation, or even misdiagnosis. Another challenge is listening comprehension. The first, and clear, or accented, speech from a native speaker can make it extremely difficult for other international students to follow the important instructions and explanations.

Despite this known risk, many educational systems act as if the students will catch up overtime, but the evidence shows otherwise, and students who begin their medical education with a poor English level and poor skills there become fluent without targeted and sensitive language training. So they are expected to perform like a native speaker in a highly demanding field like medicine without being given the tools or practice needed to succeed. As a result, their learning suffers and hinders, and their confidence drops. This idea that grammar

and pronunciation are minor issues remains dangerously mistaken, especially when the setting

involves human live (Harding et al., 2012; Seidlhofer, 2011).

The challenges are not just academic. They directly affect the student careers. Many of

them avoid participating in clinical activities or choosing certain specialties. This is simply

because they fear that they won't be able to communicate well enough. This pressure to

perform in the English language leads to anxiety, silence, or even withdrawal from important

opportunities. In so many medical environments, poor pronunciation and listening skills may

often lead to serious misunderstandings that are difficult to correct (Harding et al., 2012;

Horwitz, 2001).

Therefore, this situation requires urgent reform. All educators must stop

underestimating the impact of language issues and begin treating them as a core component of

medical training. The pronunciation, clarity, and listening comprehension all must be taught

and tested with the same seriousness as medical knowledge (Flowerdew, 2013; Seidlhofer,

2011).

2.2.3 Difficulty in Understanding and Memorizing Medical Terminology

As we know, medical terminology is one of the most difficult parts of learning

medicine in the English language, yet this difficulty is often ignored. The truth is that many

students may face real challenges in understanding and remembering these medical terms,

especially if they are not familiar with English words, roots, prefixes, and suffixes. These

terms are often seen as long, complex, and completely disconnected from the students' native

language. Unfortunately, most curriculums offer little support, assuming that students will

memories eventually everything on their own (Wang, Liang, & Ge, 2008; Mahfoudhi & Ben

Abdesslem, 2020).

The pronunciation problems can make it even worse, so when the students read terms and textbooks but then hear them pronounced differently, for example, by a native speaker, they may often fail to recognize the words. This issue can make the learning slow and frustrating; listening comprehension will become even harder when the native speakers speak quickly or use scripted, natural speech in a medical English class (Wang et al., 2008).

Furthermore, age and language background can play a major role. The students who began learning English very late in their lives or had less exposure to it are more likely to struggle, so often with vocabulary retention and listening skills. However, these factors are often ignored by the institutions or the teachers and places where tests and courses are designed, leaving the weaker students at a clear disadvantage. It is unfair to treat all the students the same when their learning backgrounds are so different, so this issue has to be taken into consideration (Mahfoudhi & Ben Abdesslem, 2020).

Also, the reality is that memorizing and using medical terminology correctly takes time, training, and reputation. However, rather than offering sufficient practice opportunities, most programs tend to rush through the material and expect students to manage on their own. This issue will eventually lead to surface-level understanding and poor recall in clinical settings where speed and accuracy are essential. These weaknesses may become a major risk (Wang et al., 2008).

As a result, if the students are not given the practice to learn and pronounce medical terms confidently, their ability to participate in discussions, understand lectures, or engage in the clinical practice will seriously be limited. Also, the institutions must recognize that understanding and remembering the medical vocabulary is not just a side task, but rather it is something important to becoming a competent medical professional (Mahfoudhi & Ben Abdesslem, 2020).

2.2.4 The Problem of Translating Medical Terms from Arabic/French to English

Many medical students from Arabic and French-speaking backgrounds often face a serious challenge that is often ignored. For example, learners may struggle with the difficulty of translating the medical terms between the languages. Why is the English language dominant in the global medical literature? These poor students are often expected to read, understand, and use complex English terminology; all while treating patients in their native language. Of course, this will create a constant struggle with the translation that many teachers and curriculum designers feel they must acknowledge (Al-Issa, 2006; Mahfoudhi & Ben Abdesslem, 2020).

Alsuliman et al., (2019) point out that how this issue can lead to confusion and miscommunications, especially when the students try to translate directly from the Arabic language or French language to the English language, the meaning of the important medical terms may get lost. In some cases, this will not just cause misunderstandings but also embarrassments, alienation, and legal problems. Medical language is extremely precise; every word carries a specific meaning, and even a small translation mistake can have serious consequences.

Ismaiel et al., (2023) further explain how the literature showed the literal translation of the English medical terms may often feel in doctor-patient communication while the doctors can usually communicate well with each other using translated terms; the same approach does not work with patients. Also, the cultural contacts and the automatic language matter. Many phrases make sense only within a specific culture, and translating them word to another word simply does not work.

This problem is even more important in terms of considering that most of these students may work in their home countries, where they must communicate with patients in Arabic or French. They are often trained in English language, but we never use English in their actual practice. This contradiction is rarely addressed in language training, and instead, students are left to figure it out on their own, which will eventually and unfortunately result in misunderstandings and weaker clinical communication (Al-Issa, 2006).

The medical education must stop ignoring this. In such translation problems, the language learning is not just about learning the English language, but it is also about learning how to move between languages accurately and meaningfully, and without proper training in how to translate medical terms, the students will continue to face serious communication barriers in both the academic and the clinical settings (Mahfoudhi & Ben Abdesslem, 2020).

2.2.5 Writing and Speaking Difficulties in Medical English

The writing and speaking skills in English language are essential skills for the medical students, but unfortunately they remain among the most neglected ones in medical education. Despite this growing importance of writing essays, case reports, and research papers, many students are still not trained to express their ideas clearly and correctly. Additionally, students usually struggle to organize their thoughts, often forming incomplete sentences and attempting to communicate complex ideas without clarity. Of course, these are not small problems. They affect the academic success, the clinical confidence, and their future careers (Flowerdew, 2013; Hyland, 2006).

In most medical programs, most of the time the focus is usually on reading and memorizing content with very little focus on the writing practice. When the students are finally asked to write something, they often feel lost because they are expected to write in a

language they do not fully control and in the style they have never been taught or exposed to. This approach sets students up for filler, and the institutions act as if these students will simply learn by doing, but of course, without proper instruction and feedback, the writing rarely improves (Flowerdew, 2013).

This situation is similar in speaking. Many medical students are often expected to speak in English language during the presentations or the cleaner clinical simulations, but many of them have never received real training in spoken English. They lack confidence, fluency, and clarity, and all these weaknesses will directly affect their ability to explain the medical concepts, interact with patients, or even participate in team discussions (Harding et al., 2012).

This problem is unfortunately true in regions where the English language is not widely spoken. Therefore, students from these backgrounds face competition or evaluation based more on their language skills than their medical knowledge. This system blames them for end performance without offering the real support to improve their language abilities (Flowerdew, 2013).

The improvements in writing and speaking skills in medical English should not be optional. They must be a part of every medical curriculum. Without targeted training and consistent practice, the students will continue to struggle. No matter how strong their medical knowledge is, the language is the tool through which they demonstrate the knowledge, and if the tool is weak, of course their success will always be limited (Hyland, 2006).

2.2.6 The Lack of Confidence in Using English in Medical Contexts

The confidence is often the missing piece in parts of English language learning for the medical students. When the students know the words and understand the content, many of

them are afraid to speak, write, or ask the questions. This fear is not irrational, but it is based on real experiences of filler, misunderstanding, and even embracement. Yet, the institutions continue to ignore the emotional side of the language learning and act as if confidence will somehow grow on its own, which will never happen (Horwitz, 2001; MacIntyre & Gardner, 1991).

Many studies showed that the students from Asia and the Middle East are particularly affected by this lack of confidence. They worry about making mistakes or being judged or even sounding wrong in the English language. This fear often stops them from speaking up, asking for help, and engaging in the clinical discussions. Other results, their learning will hinder, and they will fall behind, not because they lack the intelligence but because they lack the confidence to use this language which they are expected to master (Horwitz, 2001).

This has serious consequences because the poor communication skills are not only affecting the academic performance but they also affect the patient's care. If student cannot ask the right question or explain a diagnosis clearly, it can lead to mistakes and losing interest. The empathy and self-esteem suffer when the students feel that they cannot express themselves properly, and this creates a cycle where insecurity grows stronger and the performance becomes weaker (Flowerdew, 2013).

Also, the idea that students must have perfect English before they can be confident is unrealistic and harmful because language learning is a process, and confidence must be built gradually through support and practice. The institutions must take this seriously. They need to create safe environments where the students are encouraged to speak, explore the different accents, and communication styles, and practice without fear of failure (MacIntyre & Gardner, 1991).

Boosting the students' confidence is not optional, but it is a necessity. Without it, even the best medical training institutions cannot succeed; the confidence in the language use must be treated as a core skill, just like diagnosis or treatment planning (Horwitz, 2001).

2.3 Curriculum and Institutional Challenges

This sub-section examines the challenges within the medical education framework that usually hinder effective English language learning. Also, it highlights the absence of specialized ESP courses, teaching methods, qualified instructors, and the limited integration of the English language in academic and clinical settings.

2.3.1 The Lack of ESP Courses in Medical Education Programs

The absence of English for Specific Purposes (ESP) courses in medical programs is seen as one of the most damaging oversights in modern medical education. Despite the countless studies showing how essential ESP training is for future healthcare professionals, many universities continue to offer only general English language courses that are completely disconnected from the students' needs. This has a direct and negative absolute impact on the students' ability to function professionally in the medical environments (Basturkmen, 2010; Paltridge & Starfield, 2013).

The students are often taught by the instructors with low proficiency and low backgrounds in ESP methodology because they rely on outdated, one-size-fits-all lessons that focus only on grammar and writing accuracy while ignoring the real demand of the medical field and communication. As a result, students will eventually graduate without the ability or confidence to communicate clearly in English with patients, peers, or colleagues. And this is not a minor issue. Because in the medical context, language is not just true, but it is a lifeline,

which means the mistakes and communication can mean misdiagnosis comes up or treatments, or even dangerous outcomes (Basturkmen, 2010).

The gap between what the students are taught or learning and what they actually need is shocking. General English classes cannot prepare the future doctors to read the medical journals, write patient reports, or conduct clinical discussions. Many universities, unfortunately, have made no effort to create ESP programs. According to evidence from some institutions, even well-founded universities failed to offer appropriate ESP instruction simply because they are unwilling to change, lack resources, or do not see it as a priority. This indifference will reflect a dangerous misunderstanding of what the medical education really requires in the real field (Paltridge & Starfield, 2013).

The worst is still that some students are forced to learn ESP on their own using outdated textbooks or random online materials. This will need low skills, confusion, and wasted time. Without trained teachers, a proper curriculum, and structured classroom instructions, the ESP field is becoming a guessing game that poses a high risk to both patient safety and student performance (Basturkmen, 2010).

The need for change is urgent. The Universities must stop treating ESP courses as optional choices and start recognizing them as a core requirement for medical training. The curriculum reform, qualified teacher recruitment, and the institutional support are no longer optional, and they are very required and necessary for any serious medical program (Paltridge & Starfield, 2013).

2.3.2 Ineffective Teaching Methods and Their Impact on Learning

Nowadays, the methods which are used in many medical English programs are outdated, ineffective, and completely infantile for today's students' needs. While some of the

institutions continue to rely on the traditional approaches. These outdated methods failed to develop the communication skills that these students urgently need. In most clinical settings, the memorizing of vocabulary lists or completing grammar drills does not properly prepare the students to interact with patients and handle emergencies or collaborate with medical teams (Richards & Rodgers, 2014; Basturkmen, 2010).

It is deeply concerning that effective teaching will still dominate the classroom, even though there are better alternatives which are widely known. Also the communicative approaches, for example, they have proved highly effective and not the real speaking skills in a short time. Yet, unfortunately, so many programs continue to ignore it. This resistance to change wastes students' time damages their confidence and ultimately compromises their professional ability (Richards & Rodgers, 2014).

Maryam Hamid and Setiawan (2019) provide a clear evidence, where the English language is taught in the medical programs, using poorly planned methods and often by instructors who are either unqualified or unaware of their students' specific needs and requirements in the real world. There is a serious lack of needs analysis, which means the teachers do not take the time to understand what the students must learn to succeed in their field. This disconnect will eventually result in classroom activities that are irrelevant, repetitive, and ineffective.

The students often complete this program with, unfortunately, all improvements in their English language skills. They are expected to navigate complex medical content in the English language, but they have never been trained or exposed to how to use the English language practically. This will lead to filler in examinations, anxiety and clinical settings, and long-term these advantages in their careers. most institutions that continue using such

outdated and old teaching strategies which are not only failing their students as they are putting their future patients' care and lives at risk (Basturkmen, 2010).

In brief, if the medical education is to be effective, it must start with an effective language instruction for sure. This means moving beyond the old methods and adopting practical, research-based strategies that are or prepare the students for the real demand of the medical practice (Richards & Rodgers, 2014).

2.3.3 The Need for Qualified ESP Teachers in Medical Universities

One of the most urgent but unfortunately ignored problems in the medical English education is the lack of qualified ESP teachers. Teaching the English language for specific purposes is not the same as changing general English. This challenging because it requires expertise in both language instruction and the medical field. Many universities assigned the general English teachers who have no background or required proficiency in medicine to teach these courses that require medical precision and accuracy. This situation will lead to ineffective lessons, confused students, and poor language outcomes (Basturkmen, 2010).

According to Aniroh (2015), professionals who comprehend medical terminology and communication are required to handle ESP instruction. Without their expertise, the quality of the teaching drops and hinders, and the students are left to guess their way through the complex texts and conversations. Such behavior is completely unacceptable in the field where miscommunication can cost lives.

All the common assumptions that any English teacher can teach ESP are certainly wrong. The general English teachers may have good intentions, but without training in the medical language, they never can meet the needs of their students. This often leads to a dangerous mismatch between what is taught and what students need to know for the real

world. The result is that the medical learners will leave the university without being truly

prepared for real-world communication in hospitals, research, or the international medical

settings (Paltridge & Starfield, 2013).

Even worse, some of the programs assume that the responsibility for teaching the

medical English language can be shared between language teachers and subject specialists.

But without clear coordination and expertise, this model leads to serious outcomes and

confusing instruction that feels to support the students' learning. The institutions must invest

in training for teachers, specifically for ESP. Which includes providing the courses in medical

terminology, clinical communication, and task-based language teaching focused on medical

settings (Basturkmen, 2010).

In short, the lack of qualified ESP instructors is not just a problem, but it is a failure

that holds back the students and hinders their goals of medical education. The universities

must stop treating the ESP teaching as a simple thing and start hiring and training

professionals who can do the job properly (Paltridge & Starfield, 2013).

2.4 Possible Solutions to Overcome These Challenges

After examining many difficulties that these medical students face in learning the

English language, it becomes clear that the current methods and institutional policies are not

doing enough, and most of the programs rely on outdated, insufficient strategies that certainly

failed to prepare these students for real-world communication. The following solutions

highlight more practical, targeted approaches, but they must be implemented soon and

seriously and not just discussed in theory.

2.4.1 The Role of an ESP Course in Solving Learning Difficulties

One of the major healers in many of the medical education systems is that they continue with reliance on general English language courses. They certainly do not meet the students' professional needs. The workers and students in the indifferent medical fields and healthcare communities require some specific kinds of the English based on their rules, but most of the programs still deliver one standard or general course for everyone. And this approach is not only ineffective, but it is also dangerous (Basturkmen, 2010).

Akihiko (1970) point out that memorizing 1000 of the medical terms cannot be supported by general English language classes. The junior curriculum fails to equip students with the necessary skills to comprehend technical manuals, interact with patients, or decipher product specifications in clinical settings. Also, it ignores the very real language demand of different jobs in the medical field and the real world.

Many of the students are forced to study, unfortunately, relevant materials, while their actual needs are ignored. Without specialized courses, learners waste their time, lose motivation, and ultimately remain unprepared for their careers. It is acceptable that the medical programs continue to treat language as a normal thing. (Paltridge & Starfield, 2013).

To fix this, curriculum design must become more targeted and personalized and tailored to the students' needs. The medical schools need to develop and speak courses that match each field and even each position in the healthcare setting. The collaboration between the language and structures and the medical educators is essential; anything less will continue to eventually produce graduates who are not linguistically and culturally prepared for the realities of clinical work (Basturkmen, 2010).

2.4.2 Encouraging Interactive and Communicative Language Learning Approaches

The current situation approaches in the medical English language are often passive, outdated, and disconnected from the students' real communication needs. In the classrooms with the students only memorize the terms or text and are not learning how to speak to the patients, handle emergencies, or work with international colleagues. This problem is well known indeed; the change, unfortunately, has been slow and ignored Richards & Rodgers, 2014).

Hoshina et al., (2023) describe how a more interactive, communicative approach focusing on real-life medical cases and professional tasks can improve the language learning significantly. But unfortunately too many institutions still rely on the old-fashioned lectures and textbook exercises. These methods may be easy for the teachers to deliver, of course, but they do little to prepare the students for high-pressure and real-life situations.

Medical English is not just about vocabulary, but it is also about communication. The students need to practice rights and patient records, respond in clinical conversations, and understand the disease symptoms in the English language. However, without meaningful interaction in the classroom, students remain passive learners. They memorize the words but, of course, cannot use them in the practice or real-life medical settings. These limitations will eventually lead to poor confidence, slower learning, and ultimately weak communication skills (Richards & Rodgers, 2014).

The idea that the students can succeed in the medical English language without speaking, writing, or interaction regularly is, of course, false and dangerous. The teaching must go beyond the theory, and it should include the simulations, discussions, and task-based

learning that reflects real clinical environments. Anything less keeps the students trapped in a cycle of so much theoretical knowledge and practical incompetence (Basturkmen, 2010).

2.4.3 The Use of Medical Case Studies and Role-Playing in ESP Learning

One of the most overlooked and powerful tools of the medical English language are the use of realistic case studies and role-play. These techniques allow the students to engage actively with the language in real-world scenarios, and rather than just learning the definitions or the grammar rules need it. Still, most of the language classrooms ignore these methods and stick to only lectures and worksheets that leave the students underprepared for the clinical communication (Basturkmen, 2010).

The case studies – most of them – often help the students think critically and learn the specific vocabulary and expressions needed for the medical discussions. Instead of learning words in isolation, the students learn how to apply them when diagnosing the patients, explaining treatments, or working through medical problems. But unfortunately, in many classrooms, this powerful tool is either used too little or used poorly (Basturkmen, 2010).

Furthermore, the role-play is equally valuable. It forces the students to speak, listen, and think on their feet, just as they would in the hospital or a clinic. Unfortunately too many teachers avoid it either because they are not trained properly or because they fear the students will resist. This avoidance will lead to major missed opportunities. The medical students need to practice communication skills in safe, guided environments before facing the real patients (Richards & Rodgers, 2014).

The structure of a role-playing exercise can be simple but effective, as it is described in the current practice; the students rotate roles as doctors, patients, and observers, then they

discuss what went well and what could be improved. This kind of active feedback is essential for building both skill and confidence (Basturkmen, 2010).

Unfortunately, many programs still treat the role-play as an extra or optional thing. We believe this is a mistake because without an active practice the students cannot learn how to respond in emergencies, explain procedures, or even handle the emotional conversations. The institutions that ignore the role-playing and case-based learning are leaving their students unprepared for sure for real clinical responsibilities (Richards & Rodgers, 2014).

Conclusion

This chapter presented and discussed how multilingualism and many other factors influence English learning for medical students. It was specifically concerned with Arabic students and French as a second language, emphasizing the language interference, code-switching, and psychological and social factors. It also covered the common learning difficulties including grammatical and pronunciation difficulties. To overcome such challenges, many effective language teaching methods were proposed from the available literature, for example, well designed ESP courses targeting medical students and doctors, and interactive learning methods were proposed. It is certainly argued that addressing these difficulties and challenges and applying these solutions may help improve English language learning.

The next chapter will provide a picture on the adopted methodology in this study.

Chapter Three: The Research Methodology for this Study

Introduction

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Chapter Three: the methodology for this study

Introduction

This chapter attempts to provide a description of the methodology adopted in this study. It attempts to explain the rationale, and the research choices in this study. Also, it describes the data collection methods and data analysis procedures used in the instruction. Addedly, it outlines how we conducted the study. In more precise terms, this chapter discussed the research paradigm, research approach, and research design. It also describes the main methodological components of the study. A section on the population, sample, and sampling technique was presented. Finally, this chapter displayed and interpreted the results of the data gathered from the data collection methods. It concluded with a summary and synthesis of the main findings.

3.1 Research Methodology: Theoretical Background, Choices, and Rationale

This section provides the research methodology for this study. It describes different methodological components, such as: the research paradigm, research approach, and research design. They were all used to explore the difficulties and challenges that medical students face when learning English for medical purposes.

3.1.1 Research Paradigm

In this study, we opted for the interprevist research paradigm. The choice of this paradigm is because in our investigation we want to understand how medical students perceive the learning of English, and what are the main challenges they face, and what solutions or suggestions they might have.

This research paradigm is often used when a researcher wants to investigate people's feelings, thoughts on something, opinions, and experiences. Fundamentally, these are not issues we can measure with numbers or statistics. Rather, we need to understand what these students say by reading their answers and perceive their experience. That is why the interpretivist paradigm was the relevant choice for this research work.

3.1.2 Research Approach

In this study, we adopted a Qualitative Approach. This approach focuses on subjective meanings, individual experiences, and contextual factors that cannot be captured through numerical data. The primary aim of this research was to gain in-depth understanding of the English language learning challenges and difficulties encountered by Second year medical students at Biskra University, and to see their perceptions and suggestions about the tailored English course for medical purposes.

To corroborate, this approach is thought to be the appropriate choice for this research since it helps us to provide rich and valuable descriptive data that can reflect the investigated realities. By using unstructured questions in the data collection method, we were able to collect insightful narratives from the participants. Their answers allowed us to investigate what challenges these students face, their difficulties, and how or what they think the best solution for such problem is.

3.1.3 Research Design

It has been argued in the available literature that a research design seeks to outline the structure of the study and how you are answering the raised research question, collect the type of data, select the participants, and how the results will be analyzed. According to McCombes

(2025), "A research design is a strategy for answering your research question using empirical data. Creating a research design means making decisions about:

- Your overall research objectives and approach.

- Whether you will rely on primary research or secondary research.

- Your sampling methods or criteria for selecting participants.

- Your data collection methods.

- The procedures you will follow to collect data.

- Your data analysis methods.

In brief, well-planned research design helps ensure that your methods match your research objectives and that you use the right kind of analysis for your data.

The selected research design in this study is the Case Study Design since it focuses on specific groups, which are the Second year medical students at Biskra University. This research design is often used when the researcher wants to understand or explore a particular phenomenon in detail. The Case Study Design allows us to investigate to presented issue in depth using multiple data collection methods. This research design also can help us analyze the students' experiences within their academic context by providing a holistic understanding of the phenomenon.

3.1.4 Data Collection Method(s)

For this research, to collect data, two data collection methods were used: An unstructured questionnaire, and a semi-structured interview. The questionnaire helped us in collecting descriptive responses from the targeted sample. The interview has provided us with an investigation of the students' real life experiences with English in medical studies.

3.1.4.1 The First Interview

The first data collection method used for this research was a semi-structured interview. It guided us to focus on the language challenges. The latter was entitled as follows: Interview Guide for Exploring Language Challenges Encountered by Medical Students. This interview was conducted online via a call with each student individually.

3.1.4.1.1 Structure and Aim

The interview was composed of seven open-ended questions, focusing on investigating the specific language challenges that these second year medical students face in their academic journey. The aim of this data collection method was to understand in-depth their experiences concerning learning, the challenges they face in using it in the medical context, and any suggestions for improvements.

3.1.4.1.2 Validation

The interview was validated on February 3rd and February 5th by three University teachers: One internal and two external teachers specialized in Applied Linguistics. Their feedback was helpful. It provided us with insights on Grammar and the relevance of the questions, in addition to some suggestions. It also helped us confirm the clarity, and focus of each question. Based on the teachers' remarks and comments, we made minor adjustments based on their feedback in terms of grammar mistakes and some questions.

3.1.4.1.3 Validity

To ensure the validity of our interview, we selected participants who we have a direct experience with the topic to express their challenges with English language learning in medical context. The interviewee's responses were clear and consistent and matched the information provided from the other interviewees. Also, the interview was conducted individually. Each student was interviewed individually in an online call due to their loaded schedule. The audio-interview was recorded. Next, this interview was transcribed for analysis.

3.1.4.2 The Second Interview

The second interview was entitled as follows: Interview Guide for Exploring the Rule of Prior Language and Multilingual Curriculum in Terms of Medical Students English Learning Experiences.

3.1.4.2.1 Structure and Aim

The interview was composed of five open-ended questions, focusing on investigating how the students' prior language knowledge in French, Arabic, and the multilingual curriculum influence their English learning experience in medical studies.

3.1.4.2.2 Validation

As with the first interview, this data collection method was also validated on February 5th by three experienced University teachers: One internal and two external teachers specialized in Applied Linguistics. Their feedback was helpful since it provided us with insights on grammar and the relevance of the questions. It also helped us confirm the clarity, relevance, and focus of each question. After revising this second interview, we made some

minor adjustments based on the teachers' feedback in terms of grammar mistakes and re-ordering of some questions.

3.1.4.2.3 Validity

To ensure the validity of this second interview, we selected participants who have direct experience with the topic. The latter expressed their challenges with the English language learning in medical context. The interviewee's responses were clear and consistent and matched the information provided from other interviewees. Also, the interview was conducted individually with the interviewed students. It was held through online calls due to their loaded study schedule of these students. The audio was recorded after consent and transcribed for analysis.

3.1.4.3 The Questionnaire

The final data collection method used in this study was an unstructured questionnaire. It was made up of open-ended questions. It was designed to align with the research question that discussed and focused on understanding how an English language course for medical purposes can help overcome the difficulties that these students face in learning English in their medical journey. The questions addressed the students' needs, preferences of teaching methods, and their suggestions for improving language learning.

3.1.4.3.1 Validation

The questionnaire was validated by the same three University teachers: One internal and two external teachers. They ensured that the content, grammar, questions, and length were clear and acceptable.

3.1.4.3.2 Piloting

Before the questionnaire was distributed, we met with the Head of the Department of Medicine to obtain permission for the questionnaire administration. Next, the delegate of the class was contacted. The latter helped us to get in touch with six second year students for the piloting.. Their responses helped us to confirm that the questionnaire was acceptable and ready for distribution.

3.1.4.3.3 Validation

The validation of the questionnaire was ensured through the experts' validation and the piloting stage. The online format on Forms App allowed the students to complete the questionnaire in a comfortable setting, which have led to get valuable responses.

3.1.5 Data Collection Procedures

Before starting the data collection procedures, we made sure to consider the ethical issues. All the participants were informed about the aim of the research and how their contribution will help us in our investigation. Also, they were all informed that their responses, names, and information will remain private and confidential.

The data collection procedure was carried out over a single week. Two different data collection methods were used. Interviews and one unstructured questionnaire, the interviews were conducted after taking the permission of both the Head of the Department of Medicine, and the participants, the Second-year Medical students.

The two interviews were held on an online call with six second year medical students individually. All the 12 interviews were scheduled according to the students' availability. Also, all of them were completed in the same week. These two interviews helped us collect many

rich data and information needed for our research. They also provided us with an overview of their personal experiences.

The questionnaire was held at the end of the month. It was distributed by the delegate of the second year medical class to reach all students through an online group. They were given a clear description about the aim of the research with clear and easy questions. Their answers were clear and provided us with rich information.

In short, we made sure that all the data collection methods were used according to the academic and ethical standards.

3.1.6 Population/Sample/Sampling Technique.

The target population in our research was the Second-year Medical students at Biskra University during the 2024/2025 academic year. The sample comprised the students who voluntarily participated in the two interviews and questionnaire. Specifically, six students took part in the two interviews, and 23 students responded to the questionnaire. All the participants were Second-year Medical students comprising male and female students. The sampling technique used in this research was non-random purposive sampling. The participants were selected based on their availability and willingness to provide in-depth information about the study.

3.2 Study Description and Rationale

This section describes the rationale of this study and also explains the context of the study, why this study is important, and what this research expects to contribute to the field. The study was conducted by the researcher at the University of Biskra.

Even though English is the most widely used language in the world in most countries, specifically in the medical field, in Algeria, French is still the dominant second language after Arabic in academic and professional settings. Due to this multilingual learning environment, medical students in Algeria often face many difficulties in acquiring and using English.

This study was motivated by the need to understand the mentioned research phenomenon, since medical students in Algeria are expected during their learning journey or to read international medical literature, understand the medical terminology, and communicate in global medical contexts. However, this multilingual curriculum since their prior schooling usually creates a barrier to master English for medical purposes.

By focusing on second-year medical students, the researcher aimed to capture their experience in learning English since they are at a critical level. They have already been exposed to these challenges in the academic context of medicine. The goal of the researcher was not only to identify and analyze the challenges and difficulties of these medical students, but also to propose pedagogical solutions that could be implemented at the Universities, as English for medical purposes courses designed and introduced to these medical students before they start their learning journey.

Conclusion

This chapter presented the methodological framework used for this research. It displayed the research paradigm that guided the research. It identified the selected approach and its corresponding research design. It also presented the data collection methods used to collect the needed data. Finally, it also discussed the targeted population and sample in this study, in addition to the chosen sampling technique.

Chapter Four: Results and Data Analysis

Introduction

4.1 Results of the Study

    4.1.1 Results of the First Students' Interview

    4.1.2 Results of the Second Students' Interview

    4.1.3 Results of the Students' Questionnaire

4.2 Discussion and Synthesis of the Results

Conclusion

Chapter Four: Results and Data Analysis

Introduction

This chapter presents the main findings of this study, based on the data collected from the Second-year medical students at Biskra University. The data were collected using semi-structured interviews and an unstructured questionnaire. All answers were carefully analyzed and studied using a thematic analysis, to find the most important patterns and themes in these students' experiences.

4.1 Results of the Study

This section of the research aims to analyze and interpret the collected data from the two data collection methods: The semi-structured interviews and the unstructured questionnaire. The analysis was done through the Thematic Analysis Method.

4.1.1 Results of the First Students' Interview

This interview was the first interview conducted in the data collection procedure. It was conducted with six second year medical students at Biskra University. The interview was held via an online call. The aim was to explore in-depth their English language challenges regarding their personal experiences and perceptions about English language in terms of its use in the medical context.

The qualitative data gathered from this interview was thematically analyzed by the researcher to identify the important ideas, and challenges regarding the English language for medical purposes. All six participants provided us with valuable and in-depth insights regarding the research question that has been investigated with this data collection method. All data was grouped under the following thematic categories:

Theme one: The Importance of English Language In terms of Medical Studies

All participants agreed on the importance of English in their medical studies, and how it plays a crucial role. Also, they acknowledged that most medical literature like medical books, research papers, and articles published on famous medical websites are all in English language. Some pointed to the importance of English in staying updated with the medical knowledge, also following all international medical advancements. Another participant mentioned how important is being proficient in English, especially for those who want to study abroad, not only this, but also closing the gap between western medical community and Algerian community.

The above is the answer of participant 1 to the first question in the interview

P1: "I believe that learning English is very important in our medical education, as it is the primary language of medicine. This will be essential for my future as a doctor. But unfortunately, all the medical terminology that I learned is primarily in French due to being in Algeria..."

Theme Two: Challenges Regarding The Use of English Language

The students acknowledged multiple challenges in using English in terms of their studies. The most frequent difficulty that was mentioned was vocabulary particularly medical terminology, in addition to grammar and pronunciation issues. Many of the participants mentioned the problem of listening comprehension when using YouTube platform for explanations and additional knowledge. They tended to rely on translation, which usually leads to confusion and reducing accuracy.

The above is the answer of participant 2 to the second question in the interview

P2: "Of course, I have faced challenges while using English. For example, when I was studying and searching for and information about an organ and its functions, I found most of the medical information in English and I struggled to understand the terms and names used because the Egyptian teacher who explains, all his explanation videos are presented in English language."

Theme Three: Their Experience with The French Language and English Language

All participants described their academic learning environment as predominantly French-based. All lectures, books, to examinations are presented in French in the medicine department at Biskra University. The English language was viewed as an additional subject and not a medium of instruction as for other Departments that applied the 2023 policy of implementing the English language in the Algerian universities. This lack of exposure to the English language reduced their motive to learn the English language, and limited their knowledge in medicine to the French language as one of the participants mentioned.

The above is the answer of participant 1 to the third question in the interview

P1: Participant 1 expressed their experience with English and how it was limited due to the medical French curriculum. Also, they mentioned how they liked the English language in high school but year by year the motive to use or learn it has been reduced.

Theme Four: The Students' Perceptions on Learning the English Language

All students expressed mixed feeling and point of views regarding learning English language. Even though they all agreed on its importance in terms of their studies, but due to the French curriculum, some found it useless to engage with learning English also due to the

heavy educational program. Another point they mentioned that played a role in shaping this mixed feelings was that they found the current teaching method of English not that engaging; several participants pointed that the English course they received were somehow general and not adapted to what they need in their medical studies. Also, their motivation toward learning English was reduced due to the lack of English for medical purposes, applications of policy regarding using English like other Algerian Universities and also no practical solutions.

The above is the answer of one of the participants to the fourth question in the interview

One of the participants shared with us how since 2023, they stopped improving their English language and they never attended the English class available in the Department. The latter hoped the implementation of English in the curriculum regarding its importance in the medical educations.

Theme Five: The Difficult Language Components Faced by these Students

When the participants were asked about which language components they found most challenging. All students acknowledged medical terminology, pronunciation of complex and unfamiliar medical terms, and listening comprehension. Most of the students agreed on the listening issue because due to their reliance on YouTube videos in their learning and additional knowledge, especially native speakers when they talk.

The above is the answer of one of the participants to the fifth question in the interview

One of the participants mentioned how it was difficult for them to keep up with a club of discussion for medical students, researchers, and teachers. They mentioned that it was hard to fully understand and answering the quizzes.

Theme Six: Suggested Strategies for Improvements

All participants suggested several important strategies, implications and solutions for improving their English learning experiences, regarding the curriculum and policy. They pointed that the solution to their challenges lies in, especially, specialized medical English courses, in addition to increase the exposure to medical materials in English. Also, they mentioned the need for interactive and practical English learning experiences like workshops and discussion clubs.

The following points will further elaborate and emphasize the suggested strategies and implications:

- Integrate the English for Medical Purposes (EMP) as a medium of instruction in their curriculum and adopting the 2023 policy.

- Use new interactive teaching methods, such as medical videos, group discussions, case studies, real-life medical examples, or going to healthcare settings to work on real-life cases for more medical knowledge.

- Provide access to international online platforms, using mobile applications, medical research papers, articles, and medical books all in English can enhance the students' exposure to medical English.

- Encourage medical professors and students to use more English in lectures, especially for medical terminology already in use internationally.

The above is the answer of participant 5 to the seventh question in the interview

P5: "To overcome such challenges, I suggest practicing and applying knowledge. I attended an English course that I found unhelpful and boring, so I didn't attend again. I think they need

to create clubs or offer English courses for medical purposes to enhance our learning

experience."

Table 1.1

Summary of the First Interview Themes and Students' Answers

Theme	Main Points Expressed by Participants	Sample Quotes
The importance of English	Proficiency in English is crucial for the success of students in their medical careers, and for gaining international knowledge.	"I believe that learning English is very important in our medical education, as it is the primary language of medicine. This will be essential for my future as a doctor...."
Language Use Challenges	Medical terminology, translation causes confusion, also grammar and listening comprehension.	"Of course, I have faced challenges while using English. For example, when I was studying and searching for and information about an organ and its functions..."
Their Experience Regarding French and English languages	The dominance of French in their medical curriculum and English was viewed as an	Participant 1 expressed their experience with English and how it was limited due to the

	additional subject and not a medium of instruction.	medical French curriculum...
Perceptions on English Courses	They agreed on the importance of learning English but due to the French dominance some find it useless to learn English.	One of the participants shared with us how since 2023, they stopped improving their English language and they never attended the English class available in the department...
Difficult Language Components	medical terminology, pronunciation of complex and unfamiliar medical terms, and listening comprehension	One of the participants mentioned how it was difficult for them to keep up with a club of discussion for medical students...
Suggestions For Improvements	Use of medical vocabulary, specialized English for Medical Purposes, articles and research papers in English.	"To overcome such challenges, I suggest practicing and applying knowledge..."

4.1.2 Results of the Second Students' Interview

This section presents the thematic analysis of the second interview done manually by the researcher, which was conducted with the same six second year medical students at Biskra

University. This interview was also held via an online call. Each student was interviewed individually. The interview aimed to explore in-depth the role of prior language background, and also the influence of a multilingual curriculum on the students' experience of learning English. It is widely recognized that French is the dominant and medium of instruction in the Algerian higher education in many scientific fields.

The interview was designed to uncover how Arabic and French particularly shape the students' engagement and motive to learn the English language for their medical studies. Considering that Algeria since 2023 is trying to implement the English language in our country, several parts of the country started to apply this policy. Also, the participants expressed how language switching affects their cognitive process, in addition to what strategies these students believe could facilitate a more effective English language acquisition in their medical academic context.

All the students' responses provided valuable and in-depth insights in terms of the affect of multilingualism on English learning. All qualitative data was grouped under the following thematic categories:

Theme One: The Dominance of French in Medical Education

All participants acknowledged that French is the primary medium of instruction in their medical studies, for the Arabic language it is occasionally used for example if a teacher needs to explain a term or something unfamiliar they also use English for such cases. Another use for Arabic is for personal translations. Many students expressed their confusion concerning the new policy that the policy makers are studying, which is about implementing the English language in Medical Departments. Their confusion was about whether this policy includes them or not since they are at the end of their second year. Also, all participants

expressed that they hope that English language will be adopted and used more in the future since it is the global language in the medical community.

The above is the answer of participant 3 to the first question in the interview

P3: "Actually our studies are conducted in French, not in Arabic or English."

Theme Two: The Impact of Non-English Instruction on English Proficiency

Most participants stated that studying in French and Arabic hinders their learnin of English language. Also, it reduces their motivation to master the language; in addition most of them confirmed that the lack of use of English in their academic journey results in both limiting their language learning and also limiting their medical knowledge resources to only French language. All this lack of exposure to English language will hinder their academic and professional growth.

The above is the answer of participant 1 to the second question in the interview

P1: "Yes, translating doesn't solve the problem. We end up learning only the equivalent terms in English and Arabic, but we still struggle to understand the meanings in English."

Theme Three: The Multilingual Switching VS Cognitive Confusion

The opinions about this phenomenon differ from a participant to another about the switching between Arabic, French, and English whether in classroom discussions or study materials. Some participants deny any confusion, but in contrast some experiences a noticeable confusion in vocabulary recall or during explanations. While others provided a neutral view, they feel competent switching between languages, but when it comes to some technical terms that appear similar but differ in their meaning depending on the context. They

feel confused. This phenomenon can be either a cognitive asset, or a source of challenges, this depends on the learners' background and adaptability.

The above is the answer of participant 2 to the third question in the interview

P2: "Yes, I get confused when switching between the three languages, and I can focus only on the scientific terms and memorize them effectively in one language."

Theme Four: Multilingualism as a Double-Edged Sword

All participants agreed on the advantages of multilingualism because it provides access to diverse medical knowledge sources since most medical literature is in English language. In addition it also allows for an easier comprehension of medical terminology across languages. However, some students expressed that multilingualism in the absence of strong English language proficiency, can limits their academic growth.

The above is the answer of participant 2 to the fourth question in the interview

P2: "I think that using all these languages and being able to switch between them is an advantage..."

Theme Five: Suggested Strategies for Effective English Integration in Medicine

It was generally expressed by all participants that the current curriculum system is not effective. It does not provide enough exposure to medical English. New strategies should be introduced to improve the learning of English for Medical Purposes, especially in terms of curriculum development to include English focusing on the learners' needs, and new teaching methods and training teachers.

The strategies suggested by the participants are as follows:

- Create English clubs where students can engage in group discussions to enhance their listening and speaking skills.

- Practice all four language skills (listening, speaking, writing, and reading).

- Provide teachers and students a well training, better teaching supplements, and authentic teaching materials tailored to medical content.

- Implement the English language in the medical curriculum earlier in the program, then progressing gradually.

The above is the answer of participant 5 to the fifth question in the interview

P5: "I think we need to start training teachers in English as well as for students. I suggest creating English courses for medical purposes so that we can catch up on what we missed in our first and second year."

Table 2.1

Summary of the Second Interview Themes and Students' Answers

Theme	Main Points Expressed by Participants	Sample Quotes
French Dominance in Medical Education	Most studies are in French, with sometimes little or no English at all.	"Actually our studies are conducted in French..."
Non-English Instruction Affects Proficiency	Relying on Arabic and mostly in French limits the students' acquisition of	"...We end up learning only the equivalent terms in English and Arabic, but we

	English language.	still struggle to understand the meanings in English."
The Language switching Causing Different Experiences	The switching between languages some students finds it confusing, others feel neutral about it, and other find it helpful for their academic learning.	Yes, I get confused when switching between the three languages..."
Multilingualism: A Double-Edged Sword	Multilingualism has advantages, but also causes challenges for some students.	"I think that using all these languages and being able to switch between them is an advantage..."
Strategies for Integrating English in Medicine	All students proposed several strategies to an effective English integration in the medical curriculum.	"I think we need to start training teachers in English as well as for students. I suggest creating English courses for medical purposes..."

4.1.3 Results of the Students' Questionnaire

This section presents the thematic analysis of the last data collection tool, the questionnaire, which was done manually by the researcher. The questionnaire was distributed

to the second year medical students, and only 30 students answered. The data was collected through open-ended questions, and the main goal was to focus on understanding how an English for medical purposes can help overcome the difficulties that this students face in learning English in their medical journey. All qualitative data was grouped under the following thematic categories:

Theme One: The Ultimate Focus on Practical English Use

One of the most repeated themes among students' responses was that they expressed a desire for the course of English for Medical Purposes to focus primarily on practical English skills. The participants acknowledged the importance of learning medical vocabulary, but focusing more on practicing speaking and writing in real-life medical contexts, in terms of preparing their selves for writing future medical reports, understanding the medical literature, and communicating globally with other healthcare communities. This highlights how much the students expect the course to equip them with solely functional English for their academic and professional growth.

The above is the answer of participant 1 to the second question in the questionnaire

P1: "We should focus on all aspects of language like speaking and writing reports."

Theme Two: More Interactive and Modern Methods

All participants expressed how they prefer engaging and interactive learning methods than boring lectures like the ones they are getting, with relying on traditional lectures using textbooks alone which reduce their motivation and interaction. They suggest using group discussions, online platforms, also multimedia resources like videos. All these modern teaching methods can create a more dynamic classroom environment; encourage participation,

motivation, and real-world applications. Participants think that group discussions, for example, could foster their learning experience and collaboration, with improvements in their confidence when speaking for better communication skills; which are essential in professional medical contexts. They will definitely bridge the gap between academic learning and clinical practice.

Other participants expressed their preference to multimedia resources, like videos. For a better understanding, it can also make complex information clear and easy to understand through visual and auditory input. This method is not only considered useful but will also expose medical students to authentic English pronunciation, real-world terminology, and cultural context of healthcare settings.

In overall, this theme reflects their desire for a student-centered learning that presents a dynamic, accessible, practical, and more engaging classroom environment.

The above is the answer of participant 1 and 3 to the third question in the questionnaire

P1: "Online classes and using videos".

P3: "Yes, through sharing experiences and some discussions and interactive lectures".

Theme Three: The Include of Multilingual Explanations During Lessons

Even though many students acknowledged the importance of the English language, they were largely in favor of Arabic or French to support their understanding, especially when introducing complex medical concepts or unfamiliar medical terminology. Several students felt that this occasional use of their first or second language could bridge the language gaps without replacing English entirely.

They highlighted that certain topics can be difficult to learn without a linguistic support, offering brief clarifications and translations in Arabic or French could make their learning process much smoother and effective. This phenomenon reflects the students' linguistic background and their prior educational experience due to the Algerian educational system where French is commonly used as a medium of instruction in higher educations, especially in scientific and medical contexts.

This theme is a perfect example and aligns with many researches in multilingual education which many researchers support the use of the learners' existing linguistic knowledge when acquiring a new language especially in terms of scientific fields. This highlights the importance of **linguistic flexibility** in **English for Specific Purposes** courses; the integration of multilingual strategies can provide the necessary support and promote a deeper comprehension for the learners in complex multilingual academic fields.

The above is the answer of participant 2 and 4 to the fourth question in the questionnaire

P2: "Yes, it will help if some explanations are in Arabic or French".

P4: "As long as the mother tongue is in English, how can I understand medical terms in English?"

Theme Four: Limitations of the Course

Most students appreciated the idea of providing them with English for Specific Purposes course that aligns with their needs. It is not a complete solution to all the language difficulties they face because some of them believe that language learning is a gradual process, which needs time and exposure to the language; while certain limitations may act like obstacles such as prior language knowledge, and weak foundations.

Some participants pointed to the limited exposure to English language with the dominance of French and Arabic served as additional causes for struggling with English language. Also, other participants emphasized the importance of developing strong English proficiency for professional academic medical settings, but it requires a long-term effort.

This theme perfectly reflects the mature perspectives that these students have, while an English course could be very beneficial, the real progress comes and depends on the continuous exposure, personal motivations, and a broader curriculum support.

The above is the answer of participant 3 to the sixth question in the questionnaire

P3: "There are problems that the course will not solve immediately..."

Theme Five: English as a Key to the Medical Success

Lastly, students emphasized the role of English in their future careers, and how being proficient in such language can facilitate their studies. It can be seen as a solution to accessing medical literature, conducting research, and succeeding in international medical environments. Also, most students pointed that most scientific literature, especially in medicine, research articles, medical textbooks, and international seminars and conferences are most of the time available in English. For them, it is seen as a necessity to stay updated with latest global medicine advancements.

One of the participants noted the importance of English in terms of scientific research, and how publishing research papers and articles in English are required, especially in famous journals where the language they demand from you is English.

This theme reflects the career-oriented mindset the students have, and how they see the English language as an investment of their future professional identity. Their responses

were highly mature and emphasized many aspects of the English language, in terms of the growing awareness of globalization in the medical field in Algerian higher educations. In other words, these students viewed English as a bridge between their current local education and future global opportunities.

The above is the answer of participant 3 and 2 to the fifth question in the questionnaire

P3: "Yes, it is an international language that helps me to communicate with others and read medical article".

P2: "This course is the key for a medical student."

Table 3.1

Summary of the questionnaire Themes and Students' Answers

Theme	Main Points Expressed by Participants	Sample Quotes
Focus on Practical English	The desire for the course of EMP course to focus primarily on practical English skills. Also the importance of learning medical vocabulary, but focusing more on practicing speaking and writing in real-life medical contexts.	"We should focus on all aspects of language like speaking and writing reports."

Interactive Teaching Methods	Preference for engaging teaching methods like videos, discussions, and online learning.	"Yes, through sharing experiences and some discussions and interactive lectures".
Multilingual Explanations	Many of the participants expressed the importance to use Arabic or French for clarification, due to their multilingual curriculum.	"As long as the mother tongue is in English, how can I understand medical terms in English?"
Course Limitations	They saw the course as an important step, but it can't solve all their language problems in a short term.	"There are problems that the course will not solve immediately..."
English as the Key to Medical Success	All students see English as a key to success in their medical educations.	"This course is the key for a medical student."

4.2 Discussion and Synthesis of the Results

This section provides a discussion and interpretation of all major findings, which they were identified through a thematic analysis done manually by the researcher of all qualitative data collected via two semi-structured interviews, and one unstructured questionnaire. The

aim of this section is to synthesize all results in a relation to the research questions, research hypotheses, and finally to the relevant studies from the literature review.

Theme One: The Students' Poor Level in English

One of the most dominant themes across all three data collection tools was the participants' admission to their poor level of English language. This include grammar, vocabulary, listening comprehension, and reading; all language components. In the first and second interview, most of the participants expressed a lack of confidence and proficiency in all mentioned language skills; especially medical vocabulary.

All these findings directly address research question 1, and research hypothesis 1, in terms of supporting the idea that having a low general English level can cause foundational difficulties. It also, ought to understand how affecting their ability to engage with English for medical purposes, such as understanding terminology, communication, and reading academic texts and research papers is needed.

This theme align with Alsuliman et al. (2019), who emphasized how language bias and all medical literature is in English, can disadvantage many non-native speakers. Also, Jabali (2022) found through research that the students who have more exposure to English perform better in their academic education, and have more confidence; which matches the experience that the second year medical students at Biskra University have had with a limited exposure to the English language.

Moreover, all these difficulties are driven from the multilingual environment in Algeria, where French dominated most scientific fields in the Algerian higher education, treating the English language as an additional subject. This notion supports the sociolinguistic

findings of Kerras and Baya (2022), which describe Algeria's linguistic diversity as both an advantage and a challenge.

Theme Two: The Lack of Practice and Exposure

The second theme highlights the students' limited opportunities to use English language. All participants in both interviews and questionnaire acknowledged that English is rarely practiced, which reduces both fluency and confidence. Also, the lack of speaking, writing, or even group discussions can be a major cause for such issue.

This theme relates to the research question 2, and also supports the research hypothesis 1. Highlighting how can environmental factors, such as the curriculum design, lack of exposure enhance existing difficulties.

This finding also reinforces Ismaiel et al., (2023), who argued the importance of communicative competence in medical settings. They all advocated for the integration of communication-focused training into medical educations. This relates to the answers of the students at Biskra University, expressing a desire for more interactive and immersive experiences of learning.

Theme Three: The Interference of Multilingualism

Another key theme is the interference of French in the learning of English. This phenomenon, where the existing knowledge of French can either help some students or hinder their learning of the English language, highlights the complexity of bilingualism. The students' bilingualism is not always a good thing. It can create more confusion to some students, relying on translation, and dependency on the French equivalents.

This finding is the most relevant to the research 2 and research hypothesis 2. All results confirm that the prior knowledge of the French language of these students influences the learning of medical English, with a creation of barrier rather than a bridge.

This finding is also supported by Kerras and Baya (2022), which describes how the Algerian bilingual environment using French and English, can created challenges in adapting and acquiring another languages like the English language. Also it aligns with Alsuliman et al., (2019), who discussed how a multilingual context can complicate a ones' comprehension of English language in medical contexts.

This study shows how second year medical students at Biskra University face this interference, which is not only cognitive in terms of understanding, but also affects the students' emotional confidence and motivation.

Theme Four: Ineffective Teaching Approach

In addition to all the linguistic challenges, most participants across both interviews and the questionnaire expressed their dissatisfaction with the teaching methods used in the Department of Medicine to teach the English language course. They pointed that most current approaches rely on memorization, boring materials, in addition to a teacher-centered delivery. Many students acknowledged that they feel that the lessons lacked relevance to their medical studies.

This theme answers the research question 1 and 2, and aligns with the research hypothesis 1. With a focus on showing that the difficulties in learning are not only due to the students' language level but also by how the subject is taught.

All participants highlighted that the English course did not meet their needs as future medical professionals. They emphasized the urgent need for English for Medical Purposes course, with practical, engaging, and context-relevant teaching. This finding also supports Ismaiel et al., (2023), who advocated for the teaching approaches that focus mostly on the real-life medical scenarios and communication tasks. This finding also aligns with the Academy Publication (2020), which found out that the medical students benefit from ESP courses tailored only to their disciplines, and delivered through modern and interactive pedagogies.

Theme Five: The Need for a Specialized English for Medical Purposes Course

A theme that emerged multiple times in most participants' answers for both interviews, and especially the questionnaire. The need for tailored English course that aligns with this student's academic context; many students suggested integrating the medical vocabulary, real-life communication, and more practice for speaking and listening skills.

This finding answers directly the research hypothesis 3, and supports the research question 3. Which directly emphasize that English for Specific Purposes, can help these students overcome many difficulties they face.

This also aligns with the Academy Publication (2020) recommendation to design an ESP program, targeting the medical vocabulary and communication needs. It also supports Ismaiel et al., (2023), which emphasize the context-based and interactive instruction as a way to improve both communication skills and confidence.

Conclusion

The findings from all the two data collection methods both interviews and the questionnaire, have provided answers to the research questions. Each theme represented a core difficulty faced by these students in learning the English language. All these difficulties are rooted from broader sociolinguistic and curricular issues, such as the Algerian multilingual setting, lack of tailored courses, and the insufficient practice opportunities.

By connecting all participants' voices to the existing literature, this study has not only confirmed past research but extended it by providing a contextualization view, on how a medical English language is experienced by Algerian students. The implications pointed for the need to implement an English language instruction at Biskra University, particularly by the design of a specialized skills-oriented ESP course that aligns with the local linguistic environment.

General Conclusion

The study was conducted to investigate most of the difficulties and challenges encountered by the second-year medical students at Biskra University when learning the English language for medical purposes. It was conducted through a Qualitative Case Study using a semi-structured interview and one unstructured questionnaire. We explored the students' experiences, perceptions, and suggestions for improving their learning journey.

All of the study's results revealed that most students face foundational linguistic difficulties in terms of understanding the medical terminology, pronunciation, grammar, and listening comprehension. All of these challenges were supported by the lack of practice, lack of of exposure to the English language, and the most important thing was the dominance of French language in the Algerian curriculum for the students prior knowledge of the French language addition to the multilingual curriculum has created a cognitive interference, which unfortunately and natively influenced their English language learning and hinder their motivation. Furthermore, the current English language courses they are receiving were seen as irrelevant and aligned with their academic and professional needs.

All of the participants expressed a strong need and desire for the introduction of specialized English for medical purposes course, that aligns and focus only on the real life medical contexts and communication skills needed for their academic and future career. All of their responses emphasized the need of integrating some modern, interactive, and student centered teaching methods.

In conclusion, this study confirms the relevance of many previous studies and extends them by providing new perspectives on the experiences of Algerian medical students. It also

highlights the need for some curriculum enhancements, especially the integration of an EMP course tailored to the linguistic findings of the Algerian academic context.

Implications and Recommendations

Based on the findings of our study, we concluded to several implications and recommendations that can be conducted for educational reasons, language instructors, and policy makers:

Educational and pedagogical implications

- Design the English courses for the medical students tailored and focused on their needs, in terms of vocabulary, practical communication skills, and context-based learning
- Teach in an EMP course should integrate some real-life scenarios, such as case studies, healthcare simulations, collaborative tasks, and club discussions.
- Learning should be a learner centered approach notes traditional teacher centered approach, with the use of multimedia tools, discussion groups/clubs, and English online resources to facilitate the learning.

Curriculum design recommandations

- All medical faculties should soon introduce an EMP course early in the academic journey.
- There is a need for multilingual and bilingual support, especially in the French and Arabic languages, in terms of explanations and clarifications.

- The collaboration between the two departments of medicine and languages is necessary to ensure that the course content reflects the actual needs of the medical students.

Policy recommandations

- All universities in Algeria should respect and align with national policy changes, like the one that promoted English language education.
- All medical teachers should be trained to have better English proficiency.
- Additional academic supports, such as discussion clubs, workshops, and online platforms, are needed.

Limitations and Suggestions for Further Research

Despite all the contributions of this study, several limitations have been identified:

- **Sample size**

Our study was limited to only the second year medicals students. A larger sample from many other Algerian universities would provide a broader understanding of the measured phenomenon.

- **The scope of the participants**

Only the students were participants in our study. Other perspectives, such as instructors, curriculum designers, or policy makers, could offer a more comprehensive view.

- **Time constraints**

All of the data we gathered was collected in a short period. The study could have explored so many other academic perspectives.

Suggestions for future research

- Future studies may examine the effectiveness of implementing any course as recommended and evaluate its impact on the students' language proficiency and academic performance.
- The research could also explore the role of the multilingual education curriculum in shaping students' language learning in other disciplines.

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Appendices

Appendix A: Consent Letter for the Head of the Medicine Faculty

Informed Consent

Consent Letter for the Head of the Medicine Faculty

Informed Consent

Dear Head,

I am currently conducting a research to investigate the language challenges faced by second year medical students while learning English at Biskra University, and how a multilingual curriculum affects their learning. The purpose of this research is to investigate and indentify the language barriers and provide possible solutions to overcome these difficulties that they face.

To conduct this research, I request your permission to work with approximately 25 second year medical students. The data collection process will involve two interviews and a questionnaire.

Confidentiality, anonymity, and privacy of students' personal information and data gathered throughout the process of conducting this research work will be ensured.

If you consent to the participation of the previously mentioned second year medical students in this study, please sign the attached consent form. Your permission and cooperation will be highly appreciated.

For further questions, you are welcome to contact the researcher.

Yours sincerely,

Research Contact Details:

Full Name: Sirine Merazga

Email: merazgasirine53@gmail.com

Mohamed Kheider University of Biskra

Faculty of Letters and Foreign Languages

Department of English Language and Literature

I have read and clearly understood the researcher's request. I consent to the participation of second year medical students in the research project being conducted by MERAZGA Sirine.

Name..

E-mail..

University..

Faculty..

Department..

Section..

Date: ....

Signature:

Appendix B: Participant Informed Consent

Participant Informed Consent

Informed Consent

Dear Participant,

I am conducting a research study on the challenges and difficulties encountered by Medical students while learning English at Biskra University. The purpose is to investigate and indentify the language barriers and provide possible solutions to overcome these difficulties that you face.

As a part of this research, I will be conducting interviews and questionnaires in order to collect the necessary data for my study. Therefore you are kindly invited to take part in this research. Your participation is entirely voluntary, and you may withdraw at any time. Also your responses will be kept confidential and anonymous.

If you agree to participate, please sign the attached consent form. Your cooperation in my research is highly appreciated.

You may contact me if you have any questions.

Yours sincerely,

Research Contact Details:

Full Name: Sirine Merazga

Email: merazgasirine53@gmail.com

Mohamed Kheider University of Biskra

Faculty of Letters and Foreign Languages

Department of English Language and Literature

I have read and clearly understood the researcher's request. I consent to volunteering as a participant in the research project being undertaken.

By..

Name...

E-mail..

University..

Faculty..

Department..

Section..

Date: ....

Signature:

Appendix C: Language Challenges Students' Interview

Interview Guide for Exploring Language Challenges Encountered by Medical Students

Introduction:

This interview is a part of a study to investigate the language challenges encountered by medical students at Biskra University in terms of learning the English language. Your responses will remain confidential and will only be used for research purposes.

Interview Questions:

1. How important do you think is learning English for your medical education and future career as doctors or professors?

2. Have you ever faced challenges when using English in your medical studies? If yes please share an experience on where you faced such problem?

3. Can you tell me about your experience in using foreign languages (French and English languages), as a medical student?

4. How would you describe your experience of learning English language as a part of your learning journey?

5. What is more challenging for you regarding learning and using English language as a part of your studies?

6. What skills or language components of English language are more challenging?

7. What strategies do you think can be adopted to overcome these challenges?

Appendix D: Language Challenges Students' Interview Opinionnaire

The Opinionnaire

OPINIONNAIRE

1- Are there any repetitive questions?

Yes [ ]   No [ ]

- If yes, please specify them.

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2- Did you find any grammar / spelling mistakes in the questions?

Yes [ ]   No [ ]

-If yes, please notify them below.

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3- Do the questions effectively address the main challenges faced by medical students in learning English?

Yes [ ]   No [ ]

-If not, how can I improve it?

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……………………………………………………………………………………………

4- Are there any irrelevant questions that need to be removed?

Yes ☐   No ☐

-If yes, please provide the number of the question(s) below.

………………………………………………………………………………………………

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5- Are the questions clear and easy to understand for the participants?

Yes ☐   No ☐

-If yes, please indicate which questions require rewording.

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6- Are there any gaps in the interview questions that need to be addressed to gather more comprehensive data?

Yes ☐   No ☐

- Please write them below.

………………………………………………………………………………………………

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7- Is the interview of reasonable length?

Yes ☐   No ☐

"Thank you for taking time to review and validate my interview questions; your expertise and feedback are invaluable to the success of my research."

Appendix E: Language Challenges Students' Interview Validation

The Interview Validation Form

Interview Validation Form

I hereby certify that I have read the students' interview in the study carried out by

Sirine Merazga who is currently working on her MA dissertation at Biskra University.

I have provided the researcher of the present study with remarks and comments regarding

both the layout and the contents of the interview.

Background Information on the Expert:

Name:………………………………………………………………….

University:………………………………………………..

Present Occupation:………………………………………………..

Degree:…………………………………………………..

Telephone Number:………………………………………………...

Email Address:…………………………………………………….

Signed:………………………………………………………..

Researcher Contact Details:

Sirine Merazga

Email: merazgasirine53@gmail.com

Mohamed Kheider University of Biskra

Faculty of Letters and Foreign Languages

Department of English Language and Literature

Appendix F: The Role of Prior Language and Multilingual Curriculum Students' Interview

Interview Guide for Exploring The Role of Prior Language and Multilingual Curriculum in terms of Medical Students' English Learning Experience

Introduction:

This interview is a part of a study to investigate how students' prior language especially French like here in Algeria, and the multilingual curriculum affects their ability to learn English in medical studies. Your responses will remain confidential and will only be used for research purposes.

Interview Questions:

1. Are your medical studies mostly in Arabic or English?

2. Do you think using Arabic or French in the classroom impact your ability to master English medical terminology?

3. When switching between the two or three languages (Arabic, French and English), do you get confused?

4. Do you think that using all these languages is an advantage or a disadvantage for you?

5. What do you suggest to as strategies to follow in order to make English language more effective in learning medical studies?

Appendix G: The Role of Prior Language and Multilingual Curriculum Students' Interview Opinionnaire

The Opinionnaire

OPINIONNAIRE

1- Are there any repetitive questions?

Yes ☐   No ☐

- If yes, please specify them.

………………………………………………………………………………

………………………………………………………………………………

………………………………………………………………………………

2- Did you find any grammar / spelling mistakes in the questions?

Yes ☐   No ☐

-If yes, please notify them below.

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3- Do the questions effectively address the main challenges faced by medical students in learning English?

Yes ☐   No ☐

-If not, how can I improve it?

………………………………………………………………………………

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………………………………………………………………………………

4- Are there any irrelevant questions that need to be removed?

Yes ☐   No ☐

-If yes, please provide the number of the question(s) below.

…………………………………………………………………………………………

…………………………………………………………………………………………

5- Are the questions clear and easy to understand for the participants?

Yes ☐   No ☐

-If yes, please indicate which questions require rewording.

…………………………………………………………………………………………

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…………………………………………………………………………………………

6- Are there any gaps in the interview questions that need to be addressed to gather more comprehensive data?

Yes ☐   No ☐

- Please write them below.

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…………………………………………………………………………………………

7- Is the interview of reasonable length?

Yes ☐   No ☐

"Thank you for taking time to review and validate my interview questions; your expertise and feedback are invaluable to the success of my research."

Appendix H: The Role of Prior Language and Multilingual Curriculum Students' Interview Validation

The Interview Validation Form

Interview Validation Form

I hereby certify that I have read the students' interview in the study carried out by

Sirine Merazga who is currently working on her MA dissertation at Biskra University.

I have provided the researcher of the present study with remarks and comments regarding

both the layout and the contents of the interview.

Background Information on the Expert:

Name:………………………………………………………………….

University:…………………………………………………………...

Present Occupation:………………………………………………...

Degree:………………………………………………………………..

Telephone Number:………………………………………………...

Email Address:……………………………………………………….

Signed:………………………………………………………………...

Researcher Contact Details:

Sirine Merazga

Email: merazgasirine53@gmail.com

Mohamed Kheider University of Biskra

Faculty of Letters and Foreign Languages

Department of English Language and Literature

Appendix I: The Role of The English Language Course Students' Questionnaire

A Questionnaire Investigating The Role of English Language Courses in Addressing Medical Students' Learning Challenges

I sincerely appreciate your contribution. This questionnaire focuses on understanding how an English language course, specifically, for medical students can help overcome the difficulties They face in learning English in their medical journey. Your responses will remain confidential and will only be used for research purposes.

Connectez-vous à Google pour enregistrer votre progression. En savoir plus

* Indique une question obligatoire

1. Do you think a special english course for medical students would help you solve your problems with the language? *

☐ Yes

☐ No

Why? Or why not? *

Votre réponse

2. What do you think the course should focus on (learning medical words (Terminology), speaking, reading medical books,or writing future reports? *

Votre réponse

3. How would you like the course to be taught using videos, books, group discussions, or online classes? And why? *

Votre réponse

3. How would you like the course to be taught using videos, books, group discussions, or online classes? And why? *

Votre réponse

4. Would this be helpful if the teacher included some explanations during the course in Arabic or French? *

☐ Yes

☐ No

Why? Or why not? *

Votre réponse

5. How do you think this course could help you in your future work as a doctor, professor, or among the medical staff? *

Votre réponse

6. Are there any problems you think this course might not solve if yes, specify. *

☐ Yes

☐ No

If yes, specify. *

Votre réponse

5. How do you think this course could help you in your future work as a doctor, professor, or among the medical staff? *

Votre réponse

6. Are there any problems you think this course might not solve if yes, specify. *

☐ Yes

☐ No

If yes, specify. *

Votre réponse

7. Do you have any other ideas or suggestions for this kind of english course? *

☐ Yes

☐ No

If yes, what are they? *

Votre réponse

Envoyer   Effacer le formulaire

N'envoyez jamais de mots de passe via Google Forms.

Ce contenu n'est ni rédigé, ni cautionné par Google. - Conditions d'utilisation - Règles de confidentialité

Ce formulaire vous semble suspect ? Signaler

Google Forms

Appendix J: Appendix I: The Role of The English Language Course Students' Questionnaire Opinionnaire

The Opinionnaire

OPINIONNAIRE

1- Are there any repetitive questions?

Yes [ ]   No [ ]

- If yes, please specify them.

………………………………………………………………………………

………………………………………………………………………………

………………………………………………………………………………

2- Did you find any grammar / spelling mistakes in the questions?

Yes [ ]   No [ ]

-If yes, please notify them below.

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3- Do the questions effectively address the research question about how the English language course can help medical students overcome their difficulties?

Yes [ ]   No [ ]

-If not, how can I improve it?

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………………………………………………………………………………

………………………………………………………………………………

4- Are there any irrelevant questions that need to be removed?

Yes ☐   No ☐

-If yes, please provide the number of the question(s) below.

……………………………………………………………………………………………

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5- Are the questions clear and easy to understand for the participants?

Yes ☐   No ☐

-If yes, please indicate which questions require rewording.

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6- Are there any gaps in the questionnaire questions that need to be addressed to gather more comprehensive data?

Yes ☐   No ☐

- Please write them below.

……………………………………………………………………………………………

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……………………………………………………………………………………………

7- Is the questionnaire of reasonable length?

Yes ☐   No ☐

"Thank you for taking time to review and validate my interview questions; your expertise and feedback are invaluable to the success of my research."

Appendix K: Appendix I: The Role of The English Language Course Students' Questionnaire Validation

The Questionnaire Validation Form

Questionnaire Validation Form

I hereby certify that I have read the students' interview in the study carried out by

Sirine Merazga who is currently working on her MA dissertation at Biskra University.

I have provided the researcher of the present study with remarks and comments regarding

both the layout and the contents of the interview.

Background Information on the Expert:

Name:………………………………………………………………….

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Present Occupation:………………………………………………...

Degree:…………………………………………………………….

Telephone Number:………………………………………………...

Email Address:…………………………………………………….

Signed:…………………………………………………………….

Researcher Contact Details:

Sirine Merazga

Email: merazgasirine53@gmail.com

Mohamed Kheider University of Biskra

Faculty of Letters and Foreign Languages

Department of English Language and Literature

ملخص الدراسة

نظرا لكون اللغة الإنجليزية هي اللغة المهيمنة في تعليم الطب عالميا فللأسف فهذا يجعل أغلب الطلبة الجزائريين يواجهون

عدة عوائق، خاصة أن البيئة الأكاديمية في الجزائر متعددة اللغات، حيث أن اللغة الفرنسية هي لغة التدريس الرئيسية في

أغلب المجالات العلمية و التقنية. تهدف هذه الدراسة إلى التحقيق في معظم الصعوبات والتحديات التي يواجهها طلبة الطب

في السنة الثانية بجامعة بسكرة أثناء تعلم اللغة الإنجليزية الخاصة بالمجال الطبي. اعتمدت الدراسة على منهج دراسة الحالة

النوعية، ثم قمنا بجمع البيانات باستخدام مقابلات مع الطلبة، واستبيان مفتوح لثلاثون طالب. أظهرت النتائج أن الطلبة

بالفعل يعانون من صعوبات كبيرة في فهم المصطلحات الطبية، ومهارات الاستماع، وإضافة إلى محدودية التعرض

واستخدام اللغة الإنجليزية في المنهاج الدراسي أو خارجه. كما بينت النتائج أن هيمنة اللغة الفرنسية تؤثر بطريقة سلبية على

تعلم اللغة الإنجليزية مما يسبب التباسا معرفيا و انخفاضا في رغبة التعلم لدى الطلبة. استنتجنا ضرورة إدماج مقرر

متخصص في اللغة الإنجليزية للأغراض الطبية داخل المنهج الطبي، مع ضرورة استخدام أساليب تعليم تفاعلية وعملية،

تمكن الطلبة من تطوير كفاءتهم اللغوية مما يخدم مسيرتهم الأكاديمية والمهنية.