Challenges and Strategies in Teaching English for Medical Purposes: A Literature Review

Nguyen Ngoc Gia Han[1*]

[1] Buon Ma Thuot Medical University, Vietnam
[*]Corresponding author's email: ngocgiahanguyen@gmail.com
[*] https://orcid.org/0000-0003-0641-1137
https://doi.org/10.54855/ijli.25434

® Copyright (c) 2025 Nguyen Ngoc Gia Han

Received: 27/03/2025 Revision: 12/07/2025 Accepted: 19/07/2025 Online: 30/07/2025

ABSTRACT

English for Medical Purposes (EMP) has emerged as a critical subject in medical education in non-English speaking countries, enabling professionals to access research, communicate internationally, and update evolving healthcare practices. This literature review aims to provide an overview of the challenges and strategies in the teaching of EMP. The review reveals that the key challenges include complex medical terminology, limited contextual practice, and inadequate teacher training. Proposed strategies involve structured morphological analysis, needs-based curriculum design, and multimodal teaching methods, such as role-plays and simulations, to enhance students' engagement and retention. Interdisciplinary collaboration between English lecturers and medical professionals is also emphasized to align instruction with real-world applications. These findings contribute to ongoing efforts to refine EMP instruction in Vietnam, including future studies to explore discipline-specific EMP approaches and assess the impact of pedagogical innovations on students' medical English proficiency.

Keywords: English for Medical Purposes (EMP), medical terminology, curriculum design, vocabulary acquisition

Introduction

Since the late 20th century, English language learning has become universally important for increasing career prospects in non-English-speaking countries (Mohamad, 2023; Smith, 2015). To improve the effectiveness of English education for non-native speakers, a wide variety of teaching methods have been adopted (Pirmani et al., 2023). Among the approaches based on learners' professional needs, English teaching is classified into two main categories: English for Academic Purposes (EAP) and English for Specific Purposes (ESP), the former of which focuses on general English skills required for academic study, while the latter specializes in English skills tailored to specific professions or fields (Ruiz-Garrido et al., 2010). This article focuses on the latter approach.

In order to fulfill the specific needs for learners in their professional fields, ESP has to meet certain specific criteria. Firstly, it is required to create courses based on detailed analysis of

CITATION | Nguyen, N. G. H. (2025). Challenges and Strategies in Teaching English for Medical Purposes: A Literature Review. *International Journal of Language Instruction*, *4*(3), 57-73. DOI: https://doi.org/10.54855/ijli.25434

learners' goals so as to ensure desired, effective outcomes (Hutchinson, 1987). Moreover, this approach emphasizes real-life materials, practical language use, and technical terminology specific to various professions such as engineering, law, and medicine (Dudley-Evans & John, 1998; Johns & Dudley-Evans, 1991).

English for Medical Purposes (EMP) is one of the main branches of ESP. Specialized in English terminology for anatomy, diseases, and medical treatments as well as special skills in clinical communications, EMP became a compulsory subject in medical colleges and universities (Chu, 2017; Wette & Hawken, 2016). This subject is aimed at building skills in clinical communication (Zrníková & Bujalková, 2018) and at training learners to write medical reports, patient records, and other documents essential in healthcare. Consequently, EMP focuses on teaching medical vocabulary related to anatomy, diseases, treatments, and procedures (Dirckx, 2006; Niazi, 2012). In addition, it also addresses cultural sensitivity and effective communication with patients from diverse backgrounds (Liang, 2024).

In Vietnam, EMP serves as a compulsory subject in medical colleges and universities (Bui et al., 2024; Michelle, 2019). A number of textbooks and resources have been adopted to facilitate the learning process, ensuring that Vietnamese medical students can make the most out of these modules and become capable and well-qualified for their future medical career (Minh et al., 2023; Le et al., 2021). Despite its importance, the process of teaching and learning EMP has not yet been studied systematically and extensively enough to provide a comprehensive understanding of its challenges and potential improvements.

Research Objectives

This study aims to address two objectives:

(1) To identify the challenges faced in teaching EMP, and

(2) To propose strategies to improve the EMP teaching process.

By investigating these aspects, this article seeks to contribute to the enhancement of EMP education, ensuring that it meets the medical students' professional and practical needs, especially in Vietnam.

Literature Review

This section reviews the relevant previous studies to investigate important elements relating to teaching medical English, including the role of English in medicine, the teaching of medical English, the roles of translation in teaching medical English, and features of English medical terminology, from which research gaps and questions are identified.

English Language in Medical Field

English is a crucial tool for professionals to acquire technical knowledge in their field (Bharathi & Pushpanathan, 2022), as professional texts (i.e., books, encyclopedias, and journals) were written in English (Pritchard & Nasr, 2004). In fact, 52% of the most visited websites were displayed in English (ETS Global, 2020). In the last decades, the mastery of English not only enhanced knowledge acquisition, accelerated career growth (Nguyen, 2024) and offered easy access to infotainment, but under such emergent situations as the COVID-19 pandemic, it also saved lives by providing vital, up-to-date information regarding the latest research on the microbes, their nature, growth, control as well as drug interactions (Bharathi & Pushpanathan, 2022).

The international dominance of English in scientific fields resulted in the emergence of English for Medical Purposes in the late 20th century (Ferguson, 2012; Micic, 2008). Its main goals were to help medical learners master specific technical vocabulary, idioms and improve communications in English in medical settings (Niazi, 2012). Furthermore, the increasing international collaborations in medical specialists resulted in a growing interest in the study of medical terminology and its translation (Zafirovska & Xhaferi, 2022).

Mastering medical English was essential for professional medical performance and development in multicultural contexts, where medical staff attended international conferences and seminars or participated in exchange programs (Niazi, 2012). Under such circumstances, the lack of proficiency in English or proper use in medical terms would impede information exchange (Antic, 2007; Bharathi & Pushpanathan, 2022). Secondly, a good command of medical English was important when one wished to publish medical articles in reputable journals (Antic, 2007; Niazi, 2012). Additionally, as most medical texts, websites, literature review and journals were published in English, the capacity of understanding medical terms and reading medical English was necessary for doctors and nurses alike to conduct word study (stems, prefixes, suffixes) (Niazi, 2012) and to update latest medical information and discoveries (Milosavljević et al., 2015).

Furthermore, most medical students found it extremely important to have high English proficiency to perform their studies and jobs effectively, with reading ranked as the most important skill, followed by writing, speaking third, and listening fourth (Niazi, 2012).

The teaching of English for Medical Purposes (EMP)

As English for Medical Purposes (EMP) was the specialized English used by doctors, nurses, and other personnel in medical professions (Maher, 1986), the teaching of English for Medical Purposes had the following features and focuses to fulfill the specific English language needs for different learners.

Firstly, needs analysis by medical schools or lecturers prior to teaching EMP played a critical role in developing EMP curriculum courses to ensure its alignment with learners' professional goals, as in other English for Specific Purposes (Zafirovska & Xhaferi, 2022). Needs analysis involved the identification of medical students' specific requirements, the selection of relevant study materials, and the creation of context-specific tasks (Bharathi & Pushpanathan, 2022). An EMP course relevant to professional requirements also helped graduates in being equipped with the language skills necessary for future professional success, increasing their learning motivation, and promoting their lifelong learning (Antic, 2007). Bharathi and Pushpanathan (2022) recommended a series of steps in designing EMP curriculum, consisting of analyzing learners' needs, selecting appropriate study materials, designing context-specific tasks and activities, following an iterative process of testing and redesigning.

Secondly, authentic medical teaching materials were often used to ensure the effectiveness of EMP courses. This could include a combination of authentic medical texts, locally produced resources, and commercially published textbooks (Ferguson, 2012). The importance of content-based and context-based curricula should be emphasized to ensure consistent linguistic competence (Milosavljević et al., 2015). Moreover, EMP classrooms must simulate real-world contexts and expose students to real-world language use (Antic, 2007). To be more specific, its courses should include vocabulary-focused activities and role-plays to simulate real-world communications (Brown, 2013; Schmitt, 1997). Another learning method was to adopt a dual lesson format where vocabulary was introduced in lesson 'A' and applied in lesson 'B' through contextual activities such as chart analysis and role-playing (DuGas et al., 1999).

Thirdly, vocabulary or technical terminology acquisition was central to EMP teaching. The focus was to enable medical students to analyze medical texts, to infer or guess meanings using the clues from their context, and to familiarize themselves with medical word parts, abbreviations, and common medical topics (Joshani-Shirvan, 2008; Schmitt, 1997). Context-based learning and the use of computer-assisted tools were key components of vocabulary learning strategies to increase active engagement and efficiency (Zafirovska & Xhaferi, 2022). Abidova and Guzacheva (2020) suggested three essential vocabulary learning stages, starting from the presentation of new vocabulary, followed by the formation of lexical skills, and ending with the review and reinforcement of new vocabulary.

Fourthly, a learner-centered approach was typically employed in EMP teaching (Antic, 2007). The emphasis was on increasing learners' autonomy and self-directed study by providing diverse learning options and fostering habits of continuous learning, particularly outside the classroom. This was due to the diversity of students' needs, the common over-reliance on lecturers, and the necessity for self-directed learning outside the classroom.

Finally, the teacher's role in EMP changed from being a sole knowledge provider to a facilitator, organizer, and motivator (Antic, 2007). Their main responsibility was to design curricula that not only met linguistic needs but also engaged students in meaningful and practical activities. Since teachers had limited knowledge in specialized medicine compared to their learners, their flexibility, openness, and adaptability of new methods were crucial for effective instruction (Milosavljević et al., 2015).

To sum up, the teaching of EMP focused on addressing medical students' professional needs through needs analysis, authentic materials, vocabulary acquisition, learner-centered approach, and teachers' role as facilitators and motivators.

Translation in English for Medical Purposes (EMP)

Features of EMP Translation

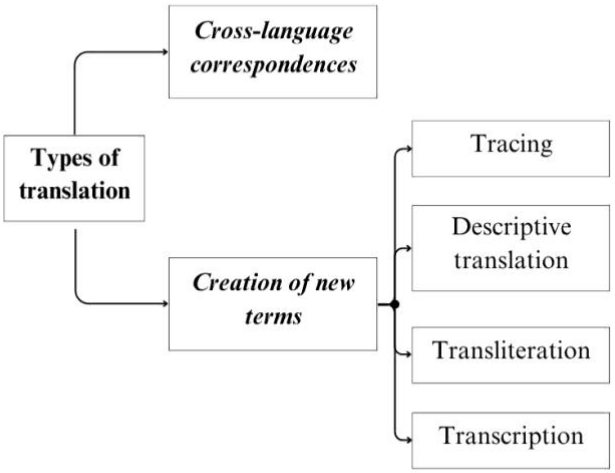
The role of interpreters and translators in medical terminology translation was to express the deep cognitive content of the terminological units as clearly, concisely and familiarly as possible to the recipients of the target linguistic culture (Azimbayevna & Vohidovna, 2021). However, EMP translations involved more than selecting the appropriate register to suit readers of different professions (Al-Kufaishi, 2004; Azimbayevna & Vohidovna, 2021; Micic, 2008). It was also a perceptive activity that prioritized understanding and conveying meaning, including the processes of analysis and synthesis, communicative language use, the reproduction of structured discourse, and the sharpening of comprehension skills (Al-Kufaishi, 2004; Micic, 2008).

Types of EMP translation

Two main types of translation operations in EMP were the cross-language correspondences (or equivalents) and the creation of new terms, the latter of which included transliteration, transcription, descriptive translation, and tracing (Figure 1).

Figure 1

Types of English for Medical Purposes Translation



Cross-language/ lexical correspondence was an equivalent term in the target language that matched the meaning of the source language term, which was common among the Latin-originated languages. For instance, the English term *Hypertension* is translated into *Hipertensión* in Spanish, and *Diabetes* into *Diabète* in French.

Tracing was the word-for-word translation of medical terms or phrases from the source language to the target language. This was less common in medical translation since it could sometimes result in awkward or incorrect phrasing if the structure of the target language differed significantly. For example, the phrase *High blood pressure* in English could be translated to *Haute pression sanguine* in literal French, though this translation was less common than the term *Hypertension artérielle*.

Descriptive translation or *explication involves adding* explanatory information to clarify the meaning of a medical term. This was useful when translating to non-specialist audiences, but it was less common in professional medical documents where standardized terms were preferred.

Transliteration was the conversion of the characters of a medical term from the source language into the corresponding characters of the target language, to preserve the sound of the original term. This was common for proper nouns, drug names, medical devices, or procedures that are internationally recognized. For example, *Aspirin* in English becomes *Aspirine* in French.

Transcription was the phonetic representation of the sounds of a medical term in the script of the target language. It was commonly used for abbreviations or terms that are pronounced similarly across languages, such as ECG (*electrocardiogram*).

Requirements for EMP Translation

Translators of medical English must have deep theoretical knowledge of medical science and be well-prepared in written translation, functional stylistics, text linguistics, and terminology (Azimbayevna & Vohidovna, 2021). Azimbayevna (2020) outlined a more detailed group including 3 requirements for medical translation, including content requirements, form requirements, and pragmatic properties.

Requirements for content consisted of the following aspects: semantic consistency

(correspondence of the meaning of the term as a lexical unit and its meaning in this terminology), unambiguity (the desire for unambiguity within the framework of one terminology), completeness (ensuring the term includes sufficient features to identify the designated concept), and the absence of synonyms. Terms must accurately reflect the concepts represented and avoid ambiguity within a specific terminology.

Requirements for form included brevity (elimination of meaningless elements), derivational term ability (ability to form new words), compliance with language standards (elimination of deviations from grammatical and phonetic norms, summing up language standards, elimination of professional jargon), the requirement of invariance (invariance of the form of terms), and semantic transparency (display in the structure of a given term of the relationship with the concept it calls, etc.). Terms should be concise, adaptable, and linguistically consistent.

Requirements for pragmatics included modernity (supplanting outdated terms), internationality (matching the form and content of the term in at least three national languages), implantation (adoption of the term by specialists), harmony, and esotericism (striving for different formulations for isolating professional communication). Terms should be up-to-date, internationally recognized, and adopted by specialists in the field.

In terms of the medical translation produced by students, students needed to possess and increase linguistic, documentation, and technological skills (del Mar Sánchez Ramos, 2020). Apart from traditional documentation tools such as dictionaries, terminological databases, and glossaries, more modern tools (i.e., corpora and terminology extraction) were now available for translators.

Medical English Terminology

Medical terminology was science-based vocabulary used to describe the human body, its components, conditions, and processes, and consisted mostly of nouns (Dirckx, 2006; Niazi, 2012). However, in nonscience-based contexts and daily conversation, terms for gross anatomy or visible human parts were taken from the vernacular in most languages (Niazi, 2012). Medical terminology generally has an international character, maintaining lexical unity by adopting specialized vocabulary across languages (Azimbayevna & Vohidovna, 2021).

Although teaching vocabulary was a primary focus in EMP courses, medical terminology remained a significant challenge for many individuals, including medical staff, lecturers, students, doctors, and even those proficient in English (Khan, 2016). One of the primary reasons was the complexity of medical terms borrowed from Greek and Latin languages with various components including prefixes, roots, and suffixes. Moreover, in non-English speaking countries where medical English was taught by lecturers of English, not by medical professionals, the challenges intensified because only medical experts knew the exact meaning. Additionally, the rapid development of medical techniques and devices led to the lack of unified medical terminology (Džuganová, 2013). Furthermore, medical terminology was rarely taught as an academic subject but was typically obtained through clinical courses and studies in which students got to know the new English terms alongside the clinical knowledge they learnt at school (Abidova & Guzacheva, 2020).

Formation of Medical English Terminology

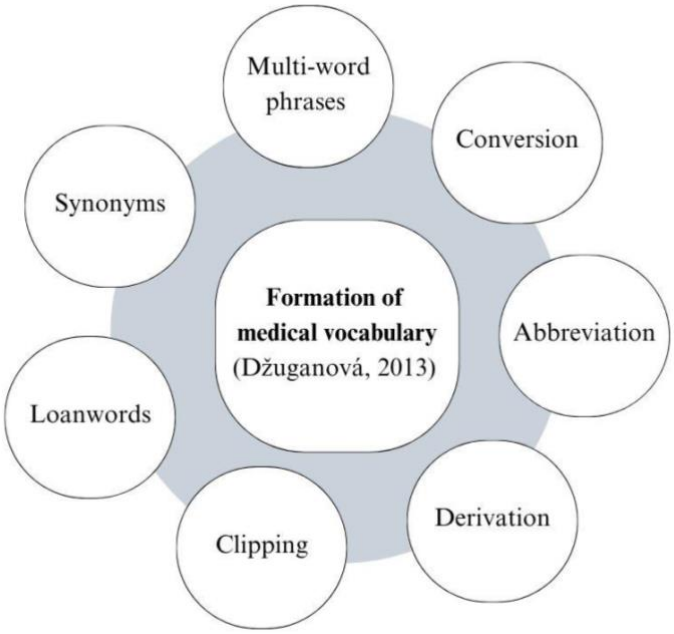
English medical terms were derived morphologically from Latin and Greek (Džuganová, 2013; Niazi, 2012). As a result, Latin was a prerequisite subject in medical education in Europe until 20 years ago. Even today's new medical vocabulary was mostly created from the elements or roots from Latin and Greek languages. However, medical terminology was low-frequency words which appeared in medical texts only, and were of very low frequency in other fields

(Akbari & Tahririan, 2009).

Medical vocabulary was not a closed, fixed system but an open system in which new words, mostly low-frequency ones, were created continuously (Yang, 2005). Nowadays, many commonly used terminological compounds have turned into abbreviations (Džuganová, 2013). Generally, a new term was formed in 3 ways, including derivation (e.g., *Hypertension* was formed from *hyper- = excessive, -tension = pressure*), the formation of multi-word phrases (e.g., *Chronic obstructive pulmonary disease*), abbreviation (e.g., MRI stands for *Magnetic Resonance Imaging*), conversion (e.g., the verb *to diagnose* was later converted into a noun *diagnosis*), clipping (e.g., the term *Influenza* is clipped into *Flu*), synonyms with same meaning but different words used by professionals and common readers (e.g., *Hypertension* may be used by doctors but *High blood pressure* were used preferably among patients) loanwords (e.g., *In vitro* in Latin meant "in glass" – referring to experiments done outside a living organism) (Džuganová, 2013) (Figure 2).

Figure 2

The Formation of Medical Vocabulary (Džuganová, 2013)



Proposed strategies in learning English medical terminology

A strong foundation in general English is highly recommended before learning medical terminology (Sinadinović, 2013). Since terminology is not used in isolation but within a professional context, students with stronger English communicative competence can more effectively learn to use specific medical terms (Abidova & Guzacheva, 2020).

Repetition was vital in learning medical vocabulary. Since the mastery of medical terms was achieved through repeated exposure, inference and memorization, it could be helpful if teachers used a communication-oriented approach where speech behaviors similar to real-life professional scenarios were created (Abidova & Guzacheva, 2020).

Learning to guess the term's meaning from context was reported to be useful, which could be reinforced by making synonyms, or antonyms for specific terms. Moreover, students should also analyze the prefixes, roots, and suffixes of medical vocabulary to better understand

complex terms (Zafirovska & Xhaferi, 2022).

Collaborative activities, such as role-playing and group projects, should be emphasized to enhance the learning experience. Practical experience, including internships or final projects in clinical settings, is recommended to increase relevance and engagement. The incorporation of internet-based activities and projects is seen as an effective way to enhance engagement (Zafirovska & Xhaferi, 2022).

More importantly, audio-visual materials reflecting real medical scenarios were used to aid in memorizing complex medical terms and improving pronunciation, which was especially beneficial for visual learners. Finally, extended course durations were advocated for by students, with the suggestion that materials should support courses lasting longer than three months to ensure a solid grasp of medical vocabulary (Zafirovska & Xhaferi, 2022).

Research Gap

The previous studies put strong emphasis on the critical role of English for Medical Purposes (EMP) within the broader framework of English for Specific Purposes (ESP), including the role of English in Medicine, features to be considered in EMP teaching and EMP translation as well as the complexity of medical English terminology. Despite the advancements in EMP education in non-English speaking countries with EMP being compulsory in medical institutions, there is a lack of comprehensive studies on its teaching and learning challenges, hindering the identification of effective improvements. This literature review aims to bridge these gaps by identifying the challenges and proposing context-specific strategies to enhance EMP teaching.

Research Questions

In line with the study's objectives, the theoretical review aimed to address the specified research questions:

1. What are the challenges faced by teachers in teaching EMP?
2. What strategies can be employed to improve the EMP teaching process?

Methods

Design of the Study

The research employed a library-based methodological approach, which involved an extensive review of diverse theoretical frameworks related to the subject matter under investigation. This comprehensive review provided insights to address the research problems.

Pedagogical Setting & Participants

The pedagogical setting of this theoretical review is centered on the instructional frameworks, challenges, and strategies associated with English for Medical Purposes (EMP) as derived from existing scholarly literature. Theoretical reviews focus on aggregating and interpreting existing knowledge to develop a framework for understanding in the chosen field (Cohen et al., 2018). As a result, human participants were not applicable in this theoretical review article.

Data Collection & Analysis

In this literature review, the research materials predominantly comprised subject-related articles, books, reports, and other academic publications which were chosen for analysis due to the following reasons (Cohen et al., 2018; Creswell & Guetterman, 2019; Snyder, 2019):

Relevance: The selected materials directly focused on the research topic or provided

insights into related concepts, theories, or methodologies.

Credibility: The reliability of the authors and publishers provided credibility to the research materials.

Recency: Preference was given to recent publications to ensure the incorporation of the latest findings, developments, and perspectives in the field.

Diversity: A range of perspectives and approaches represented in the research materials enriched the analysis, offering a comprehensive understanding of the topic.

The data analysis methodology was based on the principles of descriptive qualitative analysis, ensuring a thorough interpretation of the gathered information.

Findings & Discussion

Result 1: The challenges faced by lecturers in teaching EMP

The challenges in teaching EMP include the complexity of medical terminology, the limited opportunities for contextualized students' practice, and the lack of training for teachers/lecturers. For illustrative purposes, **Figure 3** is provided below.

Figure 3.

Challenges Faced by Lecturers in Teaching English for Medical Purposes

Complex medical terminology

The teaching of English for Medical Purposes (EMP) faces challenges rooted in linguistic, pedagogical, and systemic factors. One of the primary difficulties is the complexity of medical terminology.

Medical terminology, rooted in Greek and Latin, with complicated morphological structures (e.g., prefixes, suffixes), poses significant barriers to students' retention and application in practical contexts (Khan, 2016; Džuganová, 2013), particularly when students lack foundational strategies to decode terms. Additionally, the absence of unified medical terminology, the outdated and limited EMP textbooks available on the market, and the rapid evolution of medical technologies and practices further complicated the teaching process (Džuganová, 2013). This leads to the disconnection between classroom content and real-world medical communication and application (Džuganová, 2013). Furthermore, students often struggle with low-frequency medical vocabulary, which appears infrequently in general English but is critical for specialized medical contexts (Akbari & Tahririan, 2009; Nation, 1994).

In short, complex terminology poses a challenge for EMP lecturers due to its Greek/Latin roots, morphological complexity, low-frequency vocabulary, unstandardized terms, and outdated

textbooks.

Lack of contextualized practice

Limited contextualized practice is another major challenge in teaching and learning EMP. As a separate subject in medical programs, EMP classes provide students with very little connection with other of their specialized medical subjects at school and with insufficient exposure to actual world medical scenarios, hindering students' ability to apply medical English in real-world clinical settings (Reynolds et al., 2023). This is partly because EMP was often taught by English lecturers who were well qualified in English linguistics and teaching methodology but with little or no medical knowledge and experience to be able to explain medical terms accurately and integrate medical scenarios into teaching properly. Moreover, there was also a lack of communication among faculties and stakeholders (especially between EMP lecturers and medical lecturers). This could lead to the disconnect between linguistic instruction at schools and the practical needs for medical students in real life (Khan, 2016) (Abidova & Guzacheva, 2020; Džuganová, 2013). More often than not, large class sizes resulted in the insufficiency of teachers' feedback on student's medical vocabulary use, limiting students' ability to refine their medical language skills (Reynolds et al., 2023).

To sum up, such factors as disconnected curricula, insufficient real-world exposure in and outside of classrooms, lack of communication between English and medical faculty, large class sizes, and limited feedback from teachers on students' medical English use make it more challenging for EMP lecturers to integrate effective contextualized practice into their educational settings.

Limited teachers' training

Limited teacher training in EMP pedagogical methods is a critical issue. EMP lecturers, qualified in English pedagogy but not in medicine, lack the necessary skills to design curricula that align with the linguistic and professional needs of medical students (Antic, 2007). With most of the EMP textbooks designed by non-native Vietnamese experts, and a heavy reliance on outdated or fragmented resources, lecturers often fail to meet the demands of contextualized medical education (Ferguson, 2012). Moreover, a lack of EMP created for certain unpopular but specific fields of medicine such as dentistry and pharmacy leaves students and EMP lecturers in these disciplines feeling neglected and underprepared (Zafirovska & Xhaferi, 2022).

Additionally, insufficient communications among related faculty and stakeholders, consisting of lecturers of EMP, lecturers of medicine and medical experts, further hinders relevant and real-world EMP communicative approaches, such as role-plays or simulations, which are critical for bridging theory and practice (Antic, 2007; Milosavljević et al., 2015; Reynolds et al., 2023). As a result, EMP lecturers struggle to create relevant, authentic scenarios for their students to better apply medical terminology (Zafirovska & Xhaferi, 2022; Reynolds et al., 2023).

Finally, non-specialist English lecturers often lack the medical expertise required to clarify nuanced terminology, leading to an over-reliance on rote memorization rather than active, context-driven learning (Abidova & Guzacheva, 2020).

In summary, the lack of teacher training in EMP could result in poor interdisciplinary collaboration, inadequate simulation-based learning, insufficient medical knowledge among lecturers, and overemphasis on rote memorization.

As a final point, the major challenges encountered by EMP lecturers consisted of the complexity of English medical terminology, limited contextualized practice inside and outside the

classrooms, and the limited teacher training programs.

Result 2: Strategies recommended to improve the EMP teaching process

Based on the challenges above, several strategies could be proposed, consisting of a detailed analysis of morphological elements in medical English terminology, a thorough survey and analysis of students' needs and stakeholders' requirements, as well as a much-needed series of teacher training to improve their adaptability. For illustrative purposes, the following **Figure 4** is provided.

Figure 4.

Recommended Strategies to Improve EMP Teaching

Enhancing morphological analysis

A strong foundation in general English is highly recommended before learning medical terminology (Sinadinović, 2013). Consequently, it was essential for universities to create an entry English examination or preparatory courses to make sure that medical students meet the minimum English proficiency before attending EMP courses.

To enable lecturers and students to overcome the medical terminology complexity, explicit instruction in morphological analysis (including prefixes, roots, and suffixes) and mnemonic devices should be systematized, adopted, and evaluated (Abidova & Guzacheva, 2020; Shirvan, 2008). Context-based learning and computer-assisted tools are crucial to vocabulary learning strategies to increase active engagement and efficiency (Zafirovska & Xhaferi, 2022). Three essential vocabulary learning stages are presentation of new vocabulary, formation of lexical skills, and review and reinforcement of new vocabulary (Abidova & Guzacheva, 2020).

Repetition is crucial for learning medical vocabulary. A communication-oriented approach, where teachers create speech behaviors similar to real-life professional scenarios, can promote repeated exposure, inference, and memorization (Abidova & Guzacheva, 2020).

Learning to guess a term's meaning from context is reported to be useful, which could be reinforced by making synonyms, or antonyms for specific terms. Moreover, students should also analyze the prefixes, roots, and suffixes of medical vocabulary to better understand complex terms (Zafirovska & Xhaferi, 2022).

In summary, a combination of ensuring students' strong English foundation, creating detailed systematic morphological analysis of prefixes, roots, and suffixes, using communicative repetition in real-life scenarios, integrating computer-assisted tools, and applying vocabulary learning stages—presentation, practice, and review—is vital for enhancing students' medical terminology acquisition, understanding, and usage.

Conducting needs analysis

Carrying out a needs analysis with the involvement of as various stakeholders (lecturers,

medical experts, students, hospital administrations) as possible prior to designing EMP courses is essential to make the courses aligned between linguistic instructions and students' future professional goals (Bharathi & Pushpanathan, 2022; Zafirovska & Xhaferi, 2022). A careful needs analysis could lead to an EMP course relevant to professional requirements, helping graduates in being equipped with the language skills necessary for future professional success, in increasing their learning motivation (Nguyen et al., 2024), and in promoting their lifelong learning (Antic, 2007). The needs analysis process includes identifying students' specific requirements, selecting relevant study materials, and creating context-specific tasks and activities that simulate real-world medical scenarios (Antic, 2007; Bharathi & Pushpanathan, 2022).

In creating context-specific tasks in EMP courses, it is important to integrate authentic materials, including medical journals, case studies, real-world medical documents, locally produced resources and commercially published textbooks so as to bridge the gap between academic training and professional practice (Antic, 2007; Ferguson, 2012). These materials could provide students with exposure to the use of terminology in actual medical settings, enhancing their ability to apply EMP in their future careers. Content-based and context-based curricula are also encouraged to expose students to authentic language use and improve their linguistic competence. (Antic, 2007; Milosavljević et al., 2015)

Adopting multimodal approaches such as role-plays, simulations, and technology-assisted vocabulary acquisition tools can enhance engagement and retention. Zafirovska and Xhaferi (2022) recommend collaborative activities such as group projects and role-playing to simulate real-world medical communications. Additionally, the use of mnemonic devices, visual presentations, and documentaries can aid in memorizing complex medical terms and provide contextual understanding (Zafirovska & Xhaferi, 2022). As students advocate for courses lasting longer than three months with the inclusion of audio-visual materials that reflect real medical scenarios (Zafirovska & Xhaferi, 2022), this approach can improve pronunciation, visual context, and overall comprehension, particularly for visual learners.

Finally, tailoring textbooks to specific medical fields and incorporating internet-based activities can address the diverse needs of students across various specializations. Online integration and concise materials that consolidate multiple topics into a single resource can enhance engagement and accessibility.

Overall, a thorough needs analysis involving stakeholders (i.e., lecturers, medical experts, students, and hospital administrations) ensures EMP courses align with medical professional goals. Integrating authentic materials, including medical journals and case studies, alongside multimodal approaches such as role-plays, simulations, and technology-assisted tools, could enhance students' engagement and retention. Visual aids, including documentaries, and online integration through tailored, concise resources could further support diverse learning needs, preparing students for professional success.

Increasing teachers' adaptability and training

Teacher training is essential for better addressing the linguistic and professional needs of medical students. EMP lecturers assume diverse roles as facilitators, using or designing relevant curricula and syllabi to engage students in meaningful and practical activities (Antic, 2007). These activities can ultimately lead students to become lifelong learners and acquire sufficient skills and knowledge for self-directed learning post-graduation.

To this end, teacher training programs should strongly emphasize pedagogical adaptability to prepare lecturers to transition from knowledge providers to facilitators of student-centered

learning (Antic, 2007; Milosavljević et al., 2015), due to the diversity of students' needs, over-reliance on teachers, and the need for self-directed learning outside the classroom.

Moreover, increased collaboration and communication among university faculties, particularly between medical professionals and English lecturers, should be encouraged to provide up-to-date knowledge for EMP classroom teaching. In addition, observational sessions or practical workshops can benefit EMP teaching by enabling lecturers to learn practical teaching methods within a medical school or across medical schools in an area.

To conclude, effective EMP teaching requires specialized pedagogy and curricula, with lecturers serving as facilitators to promote student-centered learning. Faculty collaboration with medical professionals and regular observation/workshops enable lecturers to learn from each other and to enhance adaptability.

By way of conclusion, morphological analysis of English medical terminology, detailed needs analysis consisting of varied stakeholders, and teaching training programs are encouraged to ensure a productive and effective teaching and learning process for both lecturers and students of EMP.

Discussion

The findings interpret three major challenges in teaching EMP, including the complexity of medical terminology, limited opportunities for contextualized practice, and insufficient teacher training. These challenges align with the previous research outlined in the literature review. To be more specific, the complexity of medical terminology, rooted in Greek and Latin with complicated morphological structures, poses significant difficulties for students, as noted by Khan (2016) and Džuganová (2013). Additionally, the morphological complexity (e.g., prefixes, suffixes) and low-frequency nature of medical vocabulary hinder retention and application, as Akbari and Tahririan stated in their study in 2009.

Secondly, the lack of contextualized practice, due to disconnected curricula and limited real-world exposure, aligns with the concerns raised by Antic (2007) and Abidova and Guzacheva (2020) about the need for authentic materials and role-plays to simulate professional scenarios. Furthermore, this research emphasizes the critical role of interdisciplinary collaboration between English and medical faculty to enhance contextualized learning, a gap not fully explored in earlier literature.

Thirdly, the challenge of limited teacher training aligns with Antic's (2007) and Milosavljević et al.'s (2015) study. This issue is heightened by English lecturers' lack of medical expertise, leading to over-reliance on rote memorization (Abidova & Guzacheva, 2020).

To address these challenges, the proposed strategies—enhancing morphological analysis, conducting thorough needs analyses, and increasing teacher training—align with prior recommendations but offer more specific solutions. For instance, apart from the emphasis on systematic morphological analysis and mnemonic devices (Abidova & Guzacheva, 2020; Zafirovska & Xhaferi, 2022), the finding of this study calls for preparatory English courses to ensure a strong general English foundation. Finally, the focus on teacher training through faculty collaboration and practical workshops builds on Antic (2007) and Milosavljević et al. (2015), offering a more structured approach to enhancing lecturer adaptability.

Conclusion

The findings investigated significant challenges faced by lecturers in teaching English for Medical Purposes (EMP), including the complexity of medical terminology, the lack of contextualized practice, and limited teacher training. These barriers made it difficult for effective instruction to align EMP education with the linguistic and professional needs for medical students. To address these challenges, possible strategies were proposed, including enhancing morphological analysis with roots, prefixes and suffixes instruction and translation, conducting needs analyses to improve curriculum content and teaching practice, as well as increasing teachers' adaptability through specialized training and workshop programs.

This study highlights the need for structured curriculum reforms, continuous faculty collaboration, and pedagogical innovation to improve EMP instruction. By connecting teaching methods with professional requirements and increasing interdisciplinary expertise, lecturers can enhance students' proficiency and readiness for medical communication in English.

However, the study is limited by its reliance on secondary data and the absence of empirical classroom observations or student performance assessments. Future research is recommended to focus on longitudinal studies, qualitative interviews, and experimental interventions to measure the effectiveness of proposed strategies in real teaching contexts.

References

Abidova, M., & Guzacheva, N. (2020). Features of medical terminology teaching in English lessons. *Бюллетень науки и практики, 6*(4), 434-437. https://doi.org/10.33619/2414-2948/53/50

Akbari, Z., & Tahririan, M. H. (2009). Vocabulary learning strategies in an ESP context: The case of para/medical English in Iran. *The Asian EFL Journal Quarterly, 11*(1), 39-61.

Al-Kufaishi, A. (2004). Translation as a learning and teaching strategy. *Babel, 50*(1), 45-58. https://doi.org/10.1075/babel.50.1.06alk

Antic, Z. (2007). Forward in teaching English for medical purposes. *Medicine and Biology, 14*(3), 141-147.

Azimbayevna, D. G. (2020). Translation features of medical terms. *International Journal of All Research Writings*, 1(10), 5-8.

Azimbayevna, D. G., & Vohidovna, X. X. (2021). Features in the translation of medical terms. *Galaxy International Interdisciplinary Research Journal, 9*(11), 470-474.

Bharathi, K. N., & Pushpanathan, T. (2022, February). English for medical purposes and its status in India. In *Proceedings of the International Conference on Best Innovative Teaching Strategies (ICON-BITS 2021).*

Bredikhin, S. N., & Bobrovsky, I. N. (2015). Specificity of terminization of concepts in medical institutional discourse: Translation aspect. *Modern Problems of Science and Education, (1-2)*, 180-188.

Brown, P. S. (2013). Teaching a medical English CLIL course with vocabulary learning strategies instruction in Japan. *The Asian EFL Journal Special Edition, 15*(4), 276-305.

Bui, T. A. T., Dong, Q. T., Trinh, T. T. T., Nguyen, T. H., & Tran, T. H. G. (2024, October). Difficulties and Strategies in Learning English and French Medical Terminology: A

Survey Study of First-Year Students at a Medical University in Vietnam. *In VietTESOL International Convention Proceedings* (Vol. 4). https://proceedings.viettesol.org.vn/index.php/vic/article/view/134

Chu, C. (2017). Research on the Curriculum and Teaching Mode of EMP in English Teaching in Medical Colleges and Universities. *3rd International Conference on Economics, Social Science, Arts, Education and Management Engineering (ESSAEME 2017).* Atlantis Press. https://doi.org/10.2991/ESSAEME-17.2017.194

Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge. https://doi.org/10.4324/9781315456539

Creswell, J. W., & Guetterman, T. C. (2019). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (6th ed.). Pearson.

del Mar Sánchez Ramos, M. (2020). Teaching English for medical translation: A corpus-based approach. *Iranian Journal of Language Teaching Research, 8*(2), 25-40.

Dirckx, J. H. (2006). Dictionary. *JAMA, 296*(1), 100-105.

Dudley-Evans, T., & St John, M. J. (1998). *Developments in English for specific purposes.* Cambridge University Press.

DuGas, B.W., Esson, L., & Ronaldson, S. (1999). *Nursing foundations: A Canadian perspective*. Prentice Hall, Canada.

Džuganová, B. (2013). English medical terminology—Different ways of forming medical terms. *Jahr: Europski časopis za bioetiku, 4*(1), 55-69.

ETS Global. (2020, February 19). *The importance of learning English.* https://www.etsglobal.org/pl/en/blog/news/importance-of-learning-english

Ferguson, G. (2012). English for medical purposes. *The handbook of English for specific purposes* (pp. 243-261).

Hutchinson, T. (1987). *English for specific purposes.* Cambridge University Press.

Johns, A. M., & Dudley-Evans, T. (1991). English for specific purposes: International in scope, specific in purpose. *TESOL Quarterly, 25*(2), 297-314. https://doi.org/10.2307/3587465

Joshani-Shirvan, S. (2008). *Impact of Learner-Centered Teaching and Learning Process on Pre-Advanced First Year Medical Students' Performance, Attitudes, and Retention in Medical English* (Doctoral dissertation, Middle East Technical University (Turkey)).

Khan, I. A. (2016). Difficulties in mastering and using English for specific purposes (medical vocabulary): A linguistic analysis of working Saudi hospital professionals. *International Journal of Education, 8*(1), 78-93.

Le, T. T., Phan, Q. T. N., & Le, M. X. (2021). Medical Students' Evaluation of an English for Specific Purposes Coursebook: A Case in Vietnam. *LET: Linguistics, Literature and English Teaching Journal*, *11*(2), 1–23. https://doi.org/10.18592/let.v11i2.5032

Liang, H. (2024). *Enhancing EMP Training for Chinese Medical Students: A Study of a Prestigious Urban University* (Doctoral dissertation, UCL (University College London)).

Maher, J. (1986). English for medical purposes. *Language Teaching, 19*(2), 112-145.

Michelle, J. E. (2019). A study of academic genre: Exploring writing in English for university purposes with Vietnamese students. *VNU Journal of Foreign Studies*, *35(1),* 68-83.

https://doi.org/10.25073/2525-2445/vnufs.4338

Micic, S. (2008). The role of translation in undergraduate medical English instruction. *Ibérica, Revista de la Asociación Europea de Lenguas para Fines Específicos, (16)*, 169-181.

Milosavljević, N., Vuletić, A., & Jovković, L. (2015). Learning medical English: A prerequisite for successful academic and professional education. *Srpski arhiv za celokupno lekarstvo, 143*(3-4), 237-240. https://doi.org/10.2298/SARH1504237M

Minh, N., Sam, A., Hong, D., Tien, L., Phuong, L., Hung, N., My, L., & Dan, T. (2023). The effects of translation in teaching ESP medical reading for in-service students at Can Tho University of Medicine and Pharmacy, Vietnam. *European Journal of Multilingualism and Translation Studies, 3(1), 109-120.* https://doi.org/10.46827/ejmts.v3i1.475

Mohamad, S., & Tilfarlioğlu, F. (2023). An analysis of the role of English in business fields in non-English-speaking countries (A case study). *Journal of Education and Training Studies, 11*(2), 35-48. https://doi.org/10.11114/jets.v11i2.5810

Niazi, M. M. (2012). English for medical purposes: A case of English for specific purposes. *National University of Modern Languages, Islamabad, Pakistan.*

Nguyen, T. H. B. (2024). A Study on Adult Learners of English as A Foreign Language in Vietnam: Motivations, Advantages, and Challenges. *International Journal of Language Instruction*, 3(1), 31-42. https://doi.org/10.54855/ijli.24313

Nguyen, T. H. H., Ho, T. N., Do, T. M. D., & Pham, T. T. T. (2024). Factors Affecting Learner Autonomy in EMI Studying of English-Major Students at some Economics Universities in Hanoi, Vietnam. *International Journal of Language Instruction*, 3(3), 36-53. https://doi.org/10.54855/ijli.24333

Perry, D., & MacDonald, P. (2001). *Word knowledge and vocabulary instruction* [Conference Presentation]. International Conference on Engineering Education, Oslo, Norway. Retrieved from http://www.ineer.org/Events/ICEE2001/Proceedings/papers/201.pdf

Pirmani, P., Sumardi, M. S., & Putri, R. (2023). Native English teachers (NETs) strategies in teaching English to non-native learners. *Journal of Research on English and Language Learning (J-REaLL), 4*(2), 146-158. https://doi.org/10.33474/j-reall.v4i2.20170

Pritchard, M., & Nasr, A. (2004). Improving reading performance among Egyptian engineering students: Principles and practices. *English for Specific Purposes, 23*(4), 425-445. https://doi.org/10.1016/j.esp.2004.01.002

Reynolds, B. L., Zhang, X., & Ding, C. (2023). A mixed-methods study of English vocabulary for medical purposes: Medical students' needs, difficulties, and strategies. *Applied Linguistics Review, 14*(3), 643-678. https://doi.org/10.1515/applirev-2020-0119

Ruiz-Garrido, M., Palmer-Silveira, J., & Fortanet-Gómez, I. (2010). Current trends in English for Professional and Academic Purpose. *English for professional and academic purposes, 22,* 1-8. https://doi.org/10.1163/9789042029569

Schmitt, N. (1997). Vocabulary learning strategies. In *Vocabulary: Description, acquisition and pedagogy.* Cambridge University Press.

Sinadinović, D. (2013). The importance of strategies in learning and acquiring medical English vocabulary. *Jahr–European Journal of Bioethics, 4*(1), 273-291.

Smith, L. (2015). English as an international language: No room for linguistic chauvinism.

Journal of English as a Lingua Franca, 4, 165-171. https://doi.org/10.1515/JELF-2015-0002

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research, 104*, 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

Wette, R., & Hawken, S. (2016). Measuring gains in an EMP course and the perspectives of language and medical educators as assessors. *English for Specific Purposes, 42*, 38-49. https://doi.org/10.1016/J.ESP.2015.11.002

Yang, J. (2005). Lexical innovations in China English. *World Englishes, 24*(4), 425-436. https://doi.org/10.1111/j.0883-2919.2005.00424.x

Zafirovska, A., & Xhaferi, B. (2022). Vocabulary Acquisition in English for Medicine-Students' perspective. *Journal of Teaching English for Specific and Academic Purposes*, 505-532. https://doi.org/10.22190/JTESAP2203505Z

Zrníková, P., & Bujalková, M. (2018). Development of academic skills and learner's autonomy in medical English courses. *Journal of Language and Cultural Education, 6*, 1-20. https://doi.org/10.2478/jolace-2018-0022

Biodata

Ngoc Gia Han NGUYEN is now a lecturer of Medical English at Buon Ma Thuot Medical University. She graduated from Tay Nguyen University with highest distinction in English linguistics in 2021. Her research interests include ESL/EFL teaching, cultural studies, translation studies and sociolinguistics.