ASIAN PENDIDIKAN VOL. 5 NO. 1 (2025) 51–61

ASIAN PENDIDIKAN
ISSN: 2735-2331
DOI: https://doi.org/10.53797/aspen.v5i1.5.2025

Assessing English Language Needs of Chinese Medical Students: Implications for ESP Curriculum Design

Juan, Zhou[1] & Arumugam, Nalini[1*]

[1]Kuala Lumpur University of Science and Technology (KLUST), Malaysia

*Corresponding Author: 222923444@s.iukl.edu.my

Received 18 April 2025; Accepted 12 May 2025; Available online 20 June 2025

Abstract: This study investigates the English language needs of medical undergraduates in Guizhou Province, China, with a focus on English for Medical Purposes (EMP). Using a mixed-methods approach, data were collected from 993 junior students through questionnaires, interviews, classroom observations, and pre- and post-tests. Findings reveal that while students demonstrate moderate competence in receptive skills such as listening and reading, they face significant challenges in productive skills, particularly speaking and writing. These difficulties are compounded by limited authentic exposure, exam-oriented instruction, and high levels of language anxiety. Statistical analyses, including repeated-measures ANOVA, confirm writing and speaking as the most urgent areas of need. The study highlights the necessity of developing task-based, scaffolded ESP curricula that prioritize professional communication tasks such as medical documentation, patient interaction, and case presentations. Pedagogical implications include the integration of Communicative Language Teaching (CLT) and Task-Based Language Teaching (TBLT) to enhance pragmatic competence and build learner confidence. The results underscore the importance of aligning EMP instruction with the professional demands of healthcare practice in under-resourced EFL contexts.

Keywords: English for Medical Purposes (EMP), Needs Analysis, medical students, productive skills, ESP curriculum design, China

1. Introduction

With the ongoing trends of informatization and globalization, English has become the primary medium for cross-cultural communication and academic exchange (Cenoz & Gorter, 2020). For medical students studying abroad or aiming to participate in international academic and clinical communities, English proficiency is critical. It enables access to medical literature, participation in professional discourse, and engagement in research and patient care (Gerchow et al., 2021). In response, many universities have incorporated English language training into their curricula to better equip students for future professional demands.

Despite years of English instruction, many Chinese students continue to face difficulties in applying the language in real-life contexts, particularly in oral communication (Ye, 2023). Common challenges include pronunciation issues, limited fluency, and low communicative confidence—often stemming from phonetic differences between Mandarin and English (Nel & Krog, 2021). These issues are especially pressing in the medical field, where precise and effective communication is essential. Traditional English education in China, often focused on standardized testing, may fall short in preparing students for such specialized communicative demands.

Medical students must develop both general English proficiency and domain-specific vocabulary to succeed academically and professionally. However, limited exposure to authentic materials and real clinical contexts in English hampers their ability to engage in academic discussions, understand scientific texts, and communicate effectively with international peers and patients (Gong et al., 2021). Integrating complex medical terminology further complicates this process (Jiang et al., 2021).

English for Specific Purposes (ESP) offers a practical solution, targeting learners' academic and professional needs. In medical education, ESP supports students in acquiring specialized vocabulary, interpreting research, and navigating patient interactions (Reynolds et al., 2023; Pun, 2023). Nevertheless, ESP implementation in China remains uneven, often relying on outdated methods with limited integration into discipline-specific content (Qiu et al., 2022). To address these gaps, this study applies Hutchinson and Waters' framework of target and learning needs to explore how ESP can more effectively support medical students' English proficiency.

*Corresponding author: 222923444@s.iukl.edu.my

English education in Chinese universities is primarily delivered through English for General Purposes (EGP), with a strong focus on CET-4 and CET-6 scores as measures of proficiency (Wang, 2022). These standardized assessments emphasize reading and writing, often at the expense of speaking and listening. Although recent education reforms have expanded access to higher education and vocational training (Sun & Rong, 2021), differences remain between general and vocational universities in terms of language education needs and instructional models. For example, Guiyang Healthcare Vocational University, as one of the pilot vocational undergraduate institutions, presents a unique context for examining how ESP can be adapted to meet specific professional demands.

Given that most medical knowledge and scholarly communication occur in English, proficiency in the language is vital for Chinese medical students. It supports access to global research, enhances clinical communication, and enables participation in international education and collaboration (Wittenberg et al., 2021; Jiang et al., 2021). Therefore, targeted ESP instruction is essential to bridge the gap between language education and the professional realities faced by future healthcare practitioners. The objective of the research is to investigate medical students' English language needs (listening, speaking, reading, and writing) in their professional careers.

1.1 The Importance of English Language Proficiency for Medical Students

Today, English is one of the most widely spoken languages across the globe, and its significance within the medical field continues to grow. In China, medical students are expected to develop strong English skills because the majority of medical literature, including research articles, textbooks, and scholarly publications, is written in English (Tang et al., 2021). Proficiency in English allows students to access cutting-edge medical information easily and advancements from around the world, helping them stay informed about the latest treatments, technologies, and scientific breakthroughs. This, in turn, can directly enhance clinical practices and improve patient care. Furthermore, effective communication is a cornerstone of the healthcare profession. Mastery of English helps medical students develop the communication skills necessary to interact with patients, families, and other healthcare providers. A solid grasp of the language helps future doctors convey medical information accurately, discuss diagnoses and treatment options clearly, and foster trust and understanding with patients. Proficiency in English is especially crucial for engaging with patients from diverse linguistic and cultural backgrounds, helping to break down communication barriers and build stronger doctor-patient relationships (Gerchow et al., 2021).

In addition to enhancing research and communication abilities, English fluency also enables medical students in China to participate in international academic activities such as conferences and collaborative research. These events offer invaluable opportunities for knowledge exchange, learning about global medical advancements, and networking with professionals from various countries (Jiang et al., 2021). Competence in English allows students to present their work confidently and engage in meaningful discussions, which can lead to collaborative projects and a broader understanding of global health challenges.

English proficiency also plays a key role in enabling students to pursue advanced studies abroad. Many of the world's leading medical universities are based in English-speaking countries, and strong language skills significantly improve students' chances of admission. Postgraduate education in such institutions offers access to state-of-the-art resources, expert mentorship, and an international perspective that can greatly benefit their future medical careers. Therefore, English language proficiency is essential for Chinese medical students, offering numerous academic, professional, and communicative advantages. It facilitates access to global medical knowledge, enhances patient interaction, supports international engagement, and opens doors to prestigious postgraduate opportunities (Wittenberg et al., 2021). Therefore, medical institutions in China must place a strong emphasis on English education to better prepare students for the demands of a globalized healthcare environment.

1.2 English Course Design in China

The design of an English curriculum plays a vital role in language education, as it defines the learning objectives and provides a framework for developing instructional content and teaching strategies (Riadil, 2020). Traditionally, English instruction in China placed a strong emphasis on grammar and vocabulary acquisition, often at the expense of developing practical communication skills. However, this approach has evolved significantly with the introduction of Communicative Language Teaching (CLT), which has reshaped how English curricula are structured. Modern English curriculum design in China aims to enhance the country's global competitiveness by fostering intercultural communication and cross-cultural awareness (Liu et al., 2020). The shift toward communicative and student-centered methodologies has played a key role in improving the overall quality of English language education. As a result, English classes have become more interactive, engaging, and practical. Learners are now encouraged to use the language in authentic, real-world situations, developing communication skills that are both meaningful and applicable beyond the classroom.

1.3 Theoretical Framework

English for Specific Purposes (ESP) is an approach to language instruction that centers on the learners' specific goals and motivations. According to Hutchinson and Waters (1987), ESP is built on the premise that all elements of a language

course, including its content, methodology, and materials, should be informed by the learners' particular reasons for studying English. This learner-oriented model emphasizes that effective teaching must be tailored to the linguistic demands of specific fields or professional settings, using authentic tasks and subject-relevant practices.

This research adopts Hutchinson and Waters' (1987) Needs Analysis (NA) framework, which divides learner needs into two main categories: Target Needs and Learning Needs. Target Needs relate to what learners must be able to do with English in real-world or professional contexts. At the same time, Learning Needs pertain to the learning process itself, that is what learners need to acquire during instruction in order to achieve their goals. Together, these categories help educators design courses that align with both the end goals of learners and the educational journey needed to reach those goals. The analysis of Target Needs further includes three elements: "necessities", "lacks", and "wants". "Necessities" refer to the linguistic demands required for success in a target situation, such as the vocabulary or discourse needed in a medical setting. "Lacks" describe the gap between a learner's current abilities and those necessities, highlighting what skills must be developed. "Wants", on the other hand, reflect the learners' perceptions of their own needs, which may differ from the views of teachers, curriculum designers, or institutions.

These distinctions underscore the learner-centered philosophy of ESP, which recognizes that students bring their own experiences, preferences, and expectations into the classroom. A learner-centered approach treats knowledge as dynamic and constructed through active engagement. It sees the teacher not as a transmitter of knowledge, but as a facilitator who guides learners in developing skills such as critical thinking, problem-solving, and independent decision-making. This methodology encourages students to take responsibility for their learning, reflect on their progress, and adapt their strategies to meet evolving goals.

2. Research Methodology and Data Analysis

A total of 993 junior students from Guiyang Healthcare Vocational University will be selected as participants for this study. These full-time undergraduate students, aged between 19 and 22 years, have completed a series of general education courses, specialized medical subjects, and General English (GE) classes during their first and second academic years. The English for Specific Purposes (ESP) modules are therefore designed explicitly for junior-level students, as they have already developed a foundational understanding of both the English language and core medical knowledge, enabling them to engage more effectively with Medical English content.

This study adopts a mixed-methods approach, integrating both quantitative and qualitative data collection methods to obtain a comprehensive understanding of the students' English language needs. The instruments, questionnaires, semi-structured interviews, ESP module implementation, pre-tests, and post-tests, will be employed in accordance with the multiple triangulation approach, ensuring validation of findings through multiple sources and perspectives. The primary instrument for the quantitative phase is a structured questionnaire consisting of 26 items, adapted from Ahmed (2017). The questionnaire comprises two main parts. The first section collects demographic information such as age and significant. It includes four self-assessment items measuring proficiency in the four core language skills (listening, speaking, reading, and writing), rated on a five-point Likert scale from 1 (Excellent) to 5 (Poor). The second section addresses medical students perceived language needs including four language skills (listening, speaking, reading, writing) rated on a five-point Likert scale from 1(Strongly Agree) to 5 (Strongly Disagree). Quantitative data will also include results from pre-tests and post-tests administered before and after the implementation of the ESP module. These assessments are intended to measure students' progress in language proficiency and communicative competence specific to medical contexts. Qualitative data will be derived from semi-structured interviews with selected students and non-participant observers, as well as observations made during ESP classes. Additionally, open-ended responses from the questionnaire and post-workshop interviews will provide deeper insights into student perceptions, challenges, and learning experiences.

Following data collection, quantitative data will be analyzed using SPSS (Version 29) to generate descriptive statistics and comparative analyses. In contrast, qualitative data will be coded and thematically analyzed to identify patterns and themes. This triangulated approach will contribute to a more nuanced and valid understanding of learners' English language needs, supporting the design and improvement of EMP modules tailored to the specific demands of medical education.

3. Findings

3.1 Students' Demographic Profile

The purpose of analyzing demographic data was to gain insight into the composition of the sample based on factors such as age, gender, major, and length of learning English (Eloundou-Enyegue et al., 2021). This descriptive analysis included all respondents, regardless of whether any data points might be considered outliers in relation to the rest of the questionnaire. Section A of the questionnaire was used to gather demographic details from participants, and data from a total of 993 students were included. This comprehensive dataset ensured that the demographic analysis accurately represented the participants involved in the study. Table 1 presents demographic information on the participants of the field study, including information on age, gender, major, and length of learning English.

Table 1. Demographic Profile of students

Variables		Students	Percentage
Range of Age		18-22 years	
Gender	Female	682	68.68%
	Male	311	31.32%
Course		College English	
No. of participants		993	100%
Grade		Students are from the same grade: Junior students	
Major		Students are from five different departments	
Length of Learning English		1-3 year: 46	4.63%
		3-5 year: 227	22.86%
		5-10 year: 592	59.62%
		above 10 year: 128	12.89%

The demographic characteristics of the questionnaire respondents (N = 993) indicate a relatively uniform yet contextually relevant group of Chinese junior medical students. A majority of the participants are female (68.68%), and most have between five to ten years of English language learning experience, providing a solid basis for assessing their language needs and perspectives. Although all students were in the same academic year and enrolled in the College English course, they came from five different medical-related majors, allowing for some degree of generalization within the scope of healthcare education. The large sample size and high response rate contribute to the credibility and robustness of the data used in the following statistical analyses.

Section B of the questionnaire asked students to evaluate their proficiency in the four key language skills: listening, speaking, reading, and writing. Table 2 summarizes their self-ratings, providing an overview of how the participants perceive their abilities across these core areas of English language competence.

Table 2. Students' Self-assessment of English Language Proficiency

Variable	Poor	Fair	Average	Good	Excellent
Listening	10%	18%	45%	15%	12%
Speaking	12%	22%	48%	12%	6%
Reading	0%	22%	40%	23%	15%
Writing	15%	20%	45%	14%	6%

When medical students evaluated their need for English language learning, most items recorded mean scores above 3.60, as presented in Table 3. This reflects a high perceived demand for English, with every item scoring above 3.45 on a 5-point Likert scale. Moreover, the low standard deviation values indicate that responses were closely grouped around the mean, demonstrating a high level of consistency and reliability in the students' views.

3.2 Needs Analysis

The results from the needs analysis questionnaire highlight that medical students consider productive skills, especially speaking and writing, as the most essential aspects of English for their academic studies and future clinical work. Speaking tasks such as "speaking skills to participate in discussions and negotiations during meetings" (NS4, M = 3.81, SD = 0.736) and "speaking skills to speak confidently in public" (NS5, M = 3.81, SD = 0.746) received the highest importance ratings, reflecting students' awareness of the significance of spoken English in professional communication settings. These outcomes are consistent with earlier studies that have identified speaking as a crucial workplace skill, particularly in medical and administrative fields across Asia (Saleh & Murtaza, 2018; Nur & Setiawan, 2020).

Writing also emerged as a highly prioritized skill. Students expressed the greatest need for "writing skills to enhance my translation ability and prevent misunderstandings" (NW8, M = 4.04, SD = 0.780) and "writing reports" (NW5, M = 3.81, SD = 0.711), highlighting the importance of clear and precise written communication in medical documentation. These results mirror Kaewpet's (2009) findings in the Thai ESP context, where writing was also viewed as critical to effective healthcare communication.

Table 3. Medical Students' English Language Needs (N=993)

Language Skills	Item code	Items	Mean	Std. Deviation
Listening Skill	NL1	I need listening skills to comprehend lectures and other audio materials.	3.67	0.788
	NL2	I require listening skills to comprehend oral presentations during conferences.	3.59	0.762
	NL3	I need listening skills to comprehend instructions for exams and assignments.	3.75	0.76
	NL4	I need listening skills to comprehend medical video sources.	3.67	0.751
	NL5	I need listening skills to engage in conversations on general or specialized topics.	3.68	0.763
	NL6	I need listening skills to understand English-language media.	3.57	0.783
	NL7	I need listening skills to follow dramas, role-plays, and similar activities.	3.45	0.767
Speaking Skill	NS1	I need speaking skills to ask and respond to questions.	3.73	0.749
	NS2	I need speaking skills to take part in discussions actively.	3.76	0.752
	NS3	I need speaking skills to express myself confidently and clearly.	3.70	0.742
	NS4	I need speaking skills to participate in discussions and negotiations during meetings.	3.81	0.736
	NS5	I need speaking skills to speak confidently in public.	3.81	0.746
	NS6	I need speaking skills to enhance English communication in situations like telephoning, greeting, and inviting.	3.76	0.742
	NS7	I need speaking skills to share ideas with my friends and classmates effectively.	3.73	0.755
Reading Skill	NR1	I need reading skills to understand general textbooks and articles.	3.69	0.746
	NR2	I need reading skills to comprehend laboratory instructions and medication information.	3.62	0.76
	NR3	I need reading skills to complete the handouts and assignments provided by teachers.	3.57	0.752
	NR4	I need reading skills to understand lecture notes.	3.63	0.743
	NR5	I need reading skills to comprehend reading texts.	3.65	0.764
	NR6	I need reading skills to locate specific information within texts.	3.63	0.76
	NR7	I need reading skills to understand articles in the medical field.	3.65	0.764
	NR8	I need reading skills to comprehend medical and technical manuals.	3.52	0.751
Writing Skill	NW1	I need writing skills to take notes from written materials effectively.	3.52	0.779
	NW2	I need writing skills to complete class quizzes and exams.	3.58	0.771
	NW3	I need writing skills to complete assignments.	3.46	0.796
	NW4	I need writing skills to compose academic essays and projects.	3.80	0.734
	NW5	I need writing skills to draft reports.	3.81	0.711
	NW6	I need writing skills to compose and respond to emails or letters in English.	3.65	0.752
	NW7	I need writing skills to respond to comprehension questions.	3.74	0.736
	NW8	I need writing skills to enhance my translation ability and prevent misunderstandings.	4.04	0.78

In comparison, receptive skills such as listening and reading were rated slightly lower, although still considered important. The most essential listening sub-skill identified was “comprehend instructions for exams and assignments” (NL3, M = 3.75), followed by “engage in conversations on general or specialized topics.” (NL5, M = 3.68). Reading-

related items mostly ranged between 3.5 and 3.7 in importance, with the lowest need reported for "comprehending medical and technical manuals" (NR8, M = 3.52). This pattern suggests that while comprehension is acknowledged as necessary, students place greater urgency on developing expressive skills that enable them to communicate effectively and assert their professional identity.

This emphasis on productive over receptive skills likely reflects the demands of Chinese medical education and broader sociolinguistic trends. As noted by Durga (2018), there is a growing shift toward output-focused English instruction due to increased expectations for English communication in clinical practice, teamwork, and academic writing. Similar observations have been made in studies from Indonesia and India (Clement & Murugavel, 2018), where students view proficiency in speaking and writing as crucial for employability, clinical competence, and career advancement, particularly in under-resourced regions where formal English education may not fully meet professional demands.

Therefore, in this study the data provide clear evidence supporting the prioritization of speaking and writing skills for the English for Specific Purposes (ESP) course design. The findings reinforce the need for medical students to actively use English in professional contexts, justifying the study's instructional focus on enhancing productive language skills (speaking and writing) through the following workshop teaching interventions.

3.3 Descriptive analysis

Table 4 presents descriptive statistics for the within-subjects factor labeled "skill," which includes four categories: average needs for Listening (NL-AVG), Speaking (NS-AVG), Reading (NR-AVG) and Writing (NW-AVG). These categories represent repeated measurements of the same dependent variable "score" which were collected from 976 participants. The repeated-measures approach is appropriate for examining variations in ESP-related performance across different language skills within the same group of students.

According to the results, Writing (NW-AVG) received the highest average score (M = 3.880), followed by Speaking (NS-AVG, M = 3.710), Listening (NL-AVG, M = 3.626), and Reading (NR-AVG, M = 3.573), which had the lowest. Standard deviations for all skills were similar, ranging from 0.60 to 0.66, suggesting a consistent spread of scores. These initial descriptive findings point to notable differences in perceived needs across the four skills, with writing standing out as the most emphasized.

Table 4. Descriptive Statistics of Students' Perceived Needs

	Mean	Std. Deviation	N
NL-AVG	3.63	0.64	976
NS-AVG	3.71	0.62	976
NR-AVG	3.57	0.66	976
NW-AVG	3.88	0.60	976

Notes: NL-AVG = average score of listening items; NS-AVG = average score of speaking items; NR-AVG = average score of reading-related items; NW-AVG = average score of writing-related items

The statistical analysis confirmed the overall significance of skill-based differences in ESP performance and highlighted both the strengths and areas for improvement across the four core language domains. Writing (NW-AVG) had the highest mean score (3.88), indicating strong student confidence in tasks such as medical documentation and structured written communication. Speaking (NS-AVG) followed with a moderately high score, reflecting developing oral communication skills likely supported by role-play and clinical dialogue activities. Listening (NL-AVG), with a mean of 3.63, showed slightly lower proficiency but still indicated a solid foundation in comprehension, especially in academic and clinical settings.

Since writing and speaking are key productive skills necessary for building a professional identity in the medical field, these findings support the instructional emphasis placed on them. The high writing score may reflect targeted teaching on medical documentation, while speaking performance suggests benefits from simulated interactions. Nonetheless, the statistically significant differences among the skills point to the need for continued development, especially in enhancing the authenticity of tasks, expanding discipline-specific terminology, and improving scenario-based communication.

To address these findings, upcoming instructional modules will focus on reinforcing students' productive language skills. The ESP workshops aim to improve fluency and accuracy in real-world medical environments by integrating authentic tasks and context-rich communication activities.

The decision to prioritize writing and speaking in the ESP module is supported by a triangulated rationale that incorporates students' expressed needs, self-evaluated proficiency levels, and the functional importance of productive language skills in medical settings. This comprehensive justification ensures that the instructional focus remains both evidence-based and practically applicable, adhering to the core principles of needs-oriented ESP curriculum development (Hutchinson & Waters, 1987; Long, 2005).

3.4 Inferential Statistics Analysis

Findings from the repeated-measures ANOVA revealed statistically significant differences among the four core language skills in terms of perceived necessity ($F(3,973) = 144.043$, $p < .001$). Writing emerged with the highest mean score ($M = 3.880$), followed by Speaking ($M = 3.710$), while Listening and Reading received comparatively lower ratings at 3.626 and 3.573, respectively. These results suggest that students view writing and speaking as the most pressing areas requiring instructional intervention. Unlike individual self-ratings or isolated importance rankings, the ANOVA findings offer a more stable and comprehensive representation of learning needs, derived from students' reflections on real-world application and usage contexts.

Table 5. Connecting Data Insights to ESP Module Development

Language Skill	Mean Score (Repeated Measures ANOVA)	Skill Ranking	Teaching Implications
Writing	3.88	1st	Highest perceived need; demands systematic genre-focused instruction for both academic and clinical contexts
Speaking	3.71	2nd	High perceived need; calls for developing communicative skills through scenario-driven speaking activities
Listening	3.626	3rd	Moderate emphasis on receptive skills supported by input-based activities, shadowing, and multimedia case studies
Reading	3.573	4th	Lower priority; addressed through integrated reading-to-writing activities and enhanced input-based tasks

This quantitative data clearly shows that students recognize the communication difficulties they might encounter in clinical or academic settings, especially in producing written and spoken materials. It also offers solid empirical justification for dedicating instructional time and resources to these two areas.

Beyond highlighting strong perceived needs, students' self-assessment of their language proficiency further supports focusing instruction on writing and speaking. As presented in Table 2, only 20% of students rated their writing skills as "good" or "excellent", while speaking was even lower at 18%. These represent the lowest confidence levels among the four core skills, compared to higher self-ratings in reading (38%) and listening (27%).

This pattern illustrates a clear overlap between recognized need and skill deficiency, a dual gap in perceived importance and actual competence. Following Long's (2005) framework of needs analysis, effective ESP course design should target these "lacks" that hinder learners from successfully performing real-world tasks, rather than focusing solely on what learners consider important.

Beyond students' perceptions and confidence, the emphasis on writing and speaking is strongly justified by the real communicative demands inherent in medical professions. In clinical settings, writing is essential for tasks such as patient documentation, progress notes, case reports, and academic research communication. Likewise, speaking plays a vital role in patient interactions, case presentations during ward rounds, collaboration with healthcare teams, and managing sensitive consultations.

These communicative activities are often high-stakes and require accuracy, clarity, and context-sensitive language use. Yet, they are seldom addressed adequately in general English courses, underscoring the necessity for specialized ESP instruction. As Basturkmen (2010) highlights, ESP courses must align with the authentic communication needs of specific disciplines and workplaces rather than focus solely on generic language skills.

A further theoretical rationale for focusing on writing and speaking lies in the distinction between productive and receptive language skills. While receptive skills such as reading and listening often develop passively through exposure and input-based learning, productive skills require deliberate practice, formative feedback, and strategic skill-building. Hyland (2002) points out that producing spoken or written texts in academic and professional contexts is a cognitively complex and socially situated activity. Therefore, explicit instruction in productive skills is crucial in ESP programs, as these skills entail not just linguistic competence but also awareness of rhetorical structures, audience expectations, and task-specific norms.

Given the combination of high perceived need, low confidence, and strong relevance to professional tasks, writing and speaking clearly emerge as the most justifiable focal points for ESP intervention in this study. Hence, the choice to center the ESP module on speaking and writing is supported by statistically significant differences in skill needs and students' self-awareness and confidence levels.

4. Discussion

This study investigated the specific English language needs of 976 medical undergraduates in Guizhou Province using a structured needs analysis questionnaire. The instrument, based on a five-point Likert scale, assessed perceived needs across the four core skills: listening, speaking, reading, and writing. Descriptive statistics showed that writing and speaking were the highest priority skills, followed by listening and reading.

While the questionnaire results suggest a clear ranking of language skill importance, qualitative insights from open-ended responses and post-workshop interviews offer a more nuanced perspective. For example, even though 71.2% of students identified "writing academic texts" as "important" or "very important," several interviewees highlighted their struggles with specialized writing tasks.

As Interviewer 4 explained:
"We're expected to write medical case reports, but we have never been taught how. It is not the same as general English writing—it's technical and intimidating."
Similarly, Interviewee 5 remarked:
"I can follow textbook content, but when I need to write a discharge summary or speak to an international patient, I have no idea where to begin."
On the topic of speaking, students expressed comparable concerns. Interviewee 7 stated:
"During clinical internships, I get nervous speaking English—it's hard to express myself clearly."
Interviewee 2 also reflected:
"Even though I know the words, I freeze when it's time to speak. I'm scared of making mistakes."

Such hesitation in using English productively, especially in speaking and writing, stems from a combination of linguistic insecurity, performance anxiety, and foreign language anxiety. These issues are often intensified in environments where English is not used daily, such as Guizhou. Linguistic insecurity involves feeling unprepared or inadequate when using language in formal or high-pressure situations (Labov, 1966; Park, 2004). For medical students, this can mean doubting their ability to communicate professionally in English, particularly in clinical scenarios or technical writing. This often overlaps with performance anxiety, the stress of being judged when using English in front of others, which can make tasks like oral presentations or writing assignments more daunting, especially when feedback is limited or overly critical.

A lack of exposure to real-world English use compounds psychological barriers. As noted by Swain (1985), without opportunities for meaningful output, learners struggle to build fluency and confidence. Even students with solid receptive skills may falter under communicative pressure (Krashen, 1982). This reflects what Horwitz, Horwitz, and Cope (1986) define as "foreign language anxiety", a type of stress marked by fear of negative evaluation and communication apprehension. In Chinese educational contexts such as Guizhou, the focus on grammar and exam preparation often overshadows the development of communicative competence (Hu, 2002). Moreover, societal expectations tied to English proficiency for academic and professional success intensify learners' pressure and insecurity. Consequently, students may hesitate to engage in speaking and writing tasks despite recognizing their importance, leading to underdeveloped productive skills (Hyland, 2002).

Evidence from classroom observations and follow-up interviews further corroborates these findings. Using an ESP-focused observation checklist, instructors recorded signs of communication anxiety such as long pauses before speaking, heavy dependence on memorized language, and limited eye contact, especially during spontaneous interaction tasks. In one observed case, a student hesitated for over 30 seconds before responding to a question about medication side effects, ultimately defaulting to Mandarin, despite having previously heard the English equivalent. This behavior was categorized as "avoidance of real-time output", signaling anxiety-related inhibition. Field notes from the same session highlighted similar issues:

"Several students appeared visibly tense and frequently looked to classmates for reassurance before speaking. In one group, no one volunteered for the doctor's role, which had to be reassigned twice." (Interviewee 3)

Post-workshop interviews reinforced these findings. One participant explained:
"I often understand what the patient is experiencing, but I am unsure how to express empathy in English. I worry that my response might come across as inappropriate or overly informal." (Interviewee 1)

Triangulating data from multiple sources provides a deeper and more credible understanding of the interplay between students' perceived lack of competence, observed hesitation, and expressed anxiety. Together, these reinforce the necessity for scaffolded, affect-sensitive ESP instruction, particularly in under-resourced regions like Guizhou. From an English for Specific Purposes (ESP) standpoint, the findings expose a significant gap between students' current communicative abilities and the demands of their future professional roles. This discrepancy is well-explained by Hutchinson and Waters' (1987) model of Present Situation Analysis (PSA) and Target Situation Analysis (TSA). According to this framework, students' "lacks", particularly their limited productive language skills, impede their ability to fulfill the "necessities" of real-world medical communication. In the context of Guizhou's medical students, these necessities include writing discharge summaries, presenting oral case reports, and communicating effectively with international colleagues or patients. These tasks require not only linguistic competence but also pragmatic fluency and genre awareness.

The data indicate that students are underprepared for such communicative demands. Observations and interviews reveal difficulties in producing coherent spoken exchanges and in writing formal medical texts, reflecting both linguistic limitations and a lack of exposure to genre-specific conventions. In speaking tasks, many students falter during spontaneous dialogue, often reverting to their first language. In writing, they struggle to initiate or organize structured

texts such as case notes or memos. These issues point to more than just gaps in vocabulary or grammar; they underscore a need for targeted training in the discourse practices of medical communication (Hyland, 2007). The interplay between PSA and TSA in this study thus affirms the ESP principle that effective instruction must go beyond general language teaching to include explicit, contextualized training in domain-specific communicative competencies.

Pedagogically, these findings support the integration of Task-Based Language Teaching (TBLT) into ESP curriculum design. TBLT emphasizes the use of realistic, goal-driven tasks, such as drafting patient records or simulating clinical interviews, to promote practical language use (Lap & Trang, 2003). Similarly, Communicative Language Teaching (CLT) can enhance oral fluency and pragmatic competence through interactive, feedback-rich practice. When thoughtfully implemented, these approaches offer several benefits: first, authentic tasks help learners perceive English as a tool for real-world communication rather than an abstract subject, encouraging greater functional engagement. Second, scaffolded instruction and incremental task complexity reduce cognitive overload, improving performance and skill retention. As students gain mastery and succeed in tasks, their self-efficacy improves, creating a positive feedback cycle that reinforces confidence, motivation, and ongoing language development (Ramadan Elbaioumi Shaddad, etc., 2024).

Internationally, the findings of this study reflect similar patterns observed in other developing EFL contexts. In under-resourced environments, students often prioritize writing and reading over speaking and listening. For instance, Stroupe (2024) reported that students in rural Indonesia associated English proficiency primarily with grammatical accuracy in writing rather than communicative competence. Likewise, Gul, Hassan, and Imran (2023) found that Pakistani medical students rated writing and speaking as the most essential skills, citing insufficient exposure and lack of instructional scaffolding. Similarly, research by Ahmed (2017) showed that while Sudanese medical students demonstrated adequate reading proficiency, they lacked confidence in writing case reports and delivering oral presentations. Nguyen (2024) also observed that Vietnamese learners relied heavily on receptive skills due to limited communicative instruction and an emphasis on grammar-focused assessment.

These international parallels underscore the importance of contextualizing skill prioritization within the specific socio-educational environment of Guizhou Province. In Guizhou, students generally have minimal exposure to English outside the classroom, and English instruction remains heavily exam-oriented, emphasizing grammar, vocabulary, and reading comprehension (Zhang, 2021). Interviews with both faculty and students highlighted a disconnection between English instruction and clinical communication needs. As one student noted:

"We have English classes, but they focus on CET-4 and CET-6. There's nothing about how to write a patient summary or speak to a foreign doctor." (Interviewee 9)

The dominance of high-stakes testing, particularly in the early years of university, reinforces a narrow linguistic focus that neglects communicative competence. Furthermore, limited international engagement and weak integration between hospitals and universities result in few opportunities for students to encounter real-life English use, such as interacting with foreign patients or reading authentic clinical documentation. This misalignment between curricular goals and clinical realities diminishes student motivation and makes ESP instruction seem abstract or irrelevant. Compared to students in more developed coastal provinces like Guangdong or Zhejiang—where bilingual instruction, international exchange, and early immersion are more common—students in Guizhou face greater challenges due to scarce linguistic resources, a shortage of qualified ESP instructors, and limited exposure to practical English use (Li & Zou, 2023). These regional disparities suggest that Guizhou's case is illustrative of broader structural challenges in low-immersion EFL settings with weak ESP implementation.

Given these findings, several pedagogical implications emerge for curriculum designers working with medical students in under-resourced regions. First, the emphasis placed on writing and speaking, both in student perceptions and task-based needs, indicates a pressing need to incorporate productive skill development into ESP instruction. This shift requires moving beyond generic grammar-focused curricula toward genre-specific outputs such as SOAP notes, referral letters, and structured patient interviews. Second, addressing learners' low confidence and anxiety necessitates scaffolded instruction that builds skills progressively and includes frequent, formative feedback. Third, adopting methodologies grounded in Task-Based Language Teaching (TBLT) and Communicative Language Teaching (CLT) can enhance pragmatic competence by encouraging repeated, meaningful interaction in low-pressure, supportive environments. Finally, curriculum design must be responsive to local constraints. Peer-based simulations, the use of culturally relevant clinical scenarios, and digital tools for supplemental practice can help bridge gaps in access and relevance. Together, these pedagogical strategies point toward a more transformative model of ESP, one that not only develops technical language proficiency but also builds learner confidence and prepares students for the real-world communicative demands of medical practice.

5. Conclusion

The study reveals that while medical students in Guizhou possess a moderate level of receptive skills, such as listening and reading, their most significant challenges lie in productive skills, notably writing and speaking. These areas are critical for their professional tasks, including documenting patient information, delivering case presentations, and engaging in clinical communication. The students' limited confidence and frequent anxiety when using English productively stem from insufficient exposure to authentic language use and a classroom focus dominated by grammar and exam preparation. This highlights the necessity for ESP instruction that prioritizes practical, task-based development

of writing and speaking skills, supported by scaffolded learning and real-world relevance. Addressing these specific needs will better equip students to meet the linguistic demands of their future medical careers.

Acknowledgement

The author would like to thank Kuala Lumpur University of Science and Technology (KLUST) for the support provided.

Conflict of Interest

The authors declare no conflicts of interest.

References

Ahmed Alsamadani, H. (2017). Needs analysis in ESP context: Saudi engineering students as a case study. *Advances in Language and Literary Studies*, 8(6), 58. https://doi.org/10.7575/aiac.alls.v.8n.6p.58

Cenoz, J., & Gorter, D. (2020). Teaching English through pedagogical translanguaging. *World Englishes*, 39(2), 300–311. https://doi.org/10.1111/weng.12462

Gerchow, L., Burka, L. R., Miner, S., & Squires, A. (2021). Language barriers between nurses and patients: A scoping review. *Patient Education and Counseling*, 104(3), 534–553. https://doi.org/10.1016/j.pec.2020.09.017

Gong, Y. (Frank), Gao, X. (Andy), Li, M., & Lai, C. (2021). Cultural adaptation challenges and strategies during study abroad: New Zealand students in China. *Language, Culture and Curriculum*, 34(4), 417–437. https://doi.org/10.1080/07908318.2020.1856129

Hutchinson, T., & Waters, A. (1987). *English for Specific Purposes: A learning-centred approach*. Cambridge University Press.

Hyland, K. (2002). Specificity revisited: How far should we go now? *English for Specific Purposes*, 21(4), 385–395. https://doi.org/10.1016/S0889-4906(01)00028-X

Jiang, Z., Wu, H., Cheng, H., Wang, W., Xie, A., & Fitzgerald, S. R. (2021). Twelve tips for teaching medical students online under COVID-19. *Medical Education Online*, 26(1), 1854066. https://doi.org/10.1080/10872981.2020.1854066

Liu, J. E., Lo, Y. Y., & Lin, A. M. Y. (2020). Translanguaging pedagogy in teaching English for Academic Purposes: Researcher-teacher collaboration as a professional development model. *System*, 92, 102276. https://doi.org/10.1016/j.system.2020.102276

Nel, N. M., & Krog, S. (2021). Factors influencing the acquisition of Mandarin Chinese as a second additional language focusing on phonetics. *Participatory Educational Research*, 8(1), Article 1. https://doi.org/10.17275/per.21.1.8.1

Nguyen, H. T. L. (2020). A review of university research development in Vietnam from 1986 to 2019. In P. Le Ha & D. Ba Ngoc (Eds.), *Higher Education in Market-Oriented Socialist Vietnam: New Players, Discourses, and Practices* (pp. 63–86). Springer. https://doi.org/10.1007/978-3-030-46912-2_4

Pun, J. (2023). Developing an ESP workshop to promote handover practices in nursing communication: A case study of nurses in a bilingual hospital in Hong Kong. *English for Specific Purposes*, 71, 123–138. https://doi.org/10.1016/j.esp.2023.04.002

Qiu, S., et al. (2022). Multi-sensor information fusion based on machine learning for real applications in human activity recognition: State-of-the-art and research challenges. *Information Fusion*, 80, 241–265. https://doi.org/10.1016/j.inffus.2021.11.006

Ramadan Elbaioumi Shaddad, A., & Jember, B. (2024). A step toward effective language learning: an insight into the impacts of feedback-supported tasks and peer-work activities on learners' engagement, self-esteem, and language growth. *Asian-Pacific Journal of Second and Foreign Language Education*, *9*(1), 39.

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[21]. Sun, W., & Rong, X. L. (2021). English education reform in Asian countries. In *Oxford Research Encyclopedia of Education*. https://doi.org/10.1093/acrefore/9780190264093.013.838

Riadil, I. G. (2020). A study of students' perception: Identifying EFL learners' problems in speaking skill. *IJELR: International Journal of Education, Language, and Religion*, 2(1), Article 1. https://doi.org/10.35308/ijelr.v2i1.2256

Tang, Y. M., Chen, P. C., Law, K. M. Y., Wu, C. H., Lau, Y., Guan, J., He, D., & Ho, G. T. S. (2021). Comparative analysis of student's live online learning readiness during the coronavirus (COVID-19) pandemic in the higher education sector. *Computers & Education*, 168, 104211. https://doi.org/10.1016/j.compedu.2021.104211

Wang, W. (2022). Reflections on online EFL teaching during COVID-19: A case study of Yunnan University in China. *Journal of NELTA*, 27(1–2), Article 1–2. https://doi.org/10.3126/nelta.v27i1-2.53190

Wittenberg, E., et al. (2021). Opportunities to improve COVID-19 provider communication resources: A systematic review. *Patient Education and Counseling*, 104(3), 438–451. https://doi.org/10.1016/j.pec.2020.12.031

Ye, X. (2023). Code-switching in Chinese junior secondary school EFL classes: Functions and student preferences. *The Language Learning Journal*, 51(3), 263–278. https://doi.org/10.1080/09571736.2021.1998196

Zhao, J.-H., Panjaburee, P., Hwang, G.-J., & Wongkia, W. (2023). Effects of a self-regulated-based gamified virtual reality system on students' English learning performance and affection. *Interactive Learning Environments*, 0(0), 1–28. https://doi.org/10.1080/104948