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Needs Analysis of Medical Educators' Readiness and Perspectives on EMI-Based In-Service University Training at the Faculty of Medicine, Batna 2 University

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Abstract
This study investigates Algerian medical educators' readiness and perspectives on implementing English as a Medium of Instruction (EMI) at the Department of Medicine, Batna 2 University, Algeria. It seeks to examine educators' attitudes toward the ongoing shift from French to English in higher medical education and to assess their level of preparedness for this linguistic and pedagogical transition. The study also explores the challenges associated with EMI implementation, with particular emphasis on in-service training and professional development. Adopting a descriptive-analytical approach, the research collected both quantitative and qualitative data through a structured questionnaire distributed through Google Forms. The questionnaire was administered to a representative stratified random sample of 160 medical educators and was validated through a pilot focus group to ensure reliability and clarity. The findings indicate that the majority of participants hold positive attitudes toward EMI, with 76.3% expressing support for replacing French with English as the primary language of instruction in Algerian medical education. However, the results reveal a readiness paradox: despite favorable perceptions, only about half of the respondents feel sufficiently prepared to transition to EMI. Participants reported stronger reading and writing skills compared to weaker oral proficiency, particularly in speaking and pronunciation. Limited English proficiency, lack of pedagogical training, insufficient resources, and cultural considerations were identified as major obstacles. Most educators emphasized the urgent need for structured in-service training programs focusing on Medical English and EMI-specific pedagogy for both teachers and students. The study concludes that successful EMI implementation requires comprehensive professional development, institutional support, and policy alignment that balances global academic demands with local educational realities. It further recommends conducting similar research with medical students to support a more effective and context-sensitive EMI transition in non-English-speaking higher education contexts.
Keywords: Algeria; English as a Medium of Instruction; In- Service Training; Medical Educators; Readiness.

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Introduction

English has increasingly become the global lingua franca, particularly in fields such as science, business, and technology, which has led many non-English-speaking countries to integrate English into higher education (Pineda & Bosso, 2023; Yuan & Peng, 2022). This shift, known as English as a Medium of Instruction (EMI), is defined by Macaro (2018, p. 18) as the use of English to teach academic subjects in contexts where English is not the majority's native language. The growing reliance on English reflects its value in accessing global research, improving employability, and facilitating international collaboration (Hopkyns et al., 2024; Galloway & Rose, 2021; Macaro et al., 2022). Algeria has aligned itself with this global trend, with the Ministry of Higher Education and Scientific Research (MHESR) launching initiatives since 2019 to implement EMI, especially in science and technology disciplines, to prepare students for a competitive global job market. Despite the promise, the transition to EMI presents substantial challenges, particularly for university teachers who often lack adequate English proficiency, pedagogical training, and institutional support. These issues significantly affect the effectiveness of EMI delivery and underscore the importance of teacher readiness in this context. Teacher preparedness, encompassing language skills, subject knowledge, pedagogical competence, and cultural awareness, is crucial for the success of EMI (Dearden & Macaro, 2021; Lasagabaster, 2022). However, in Algeria, research on this aspect remains limited. While global literature acknowledges the need for robust pre- and in-service training for EMI (Galloway & Ruegg, 2021; Macaro, 2022; Jansen & Lee, 2024; Martinez & Taylor, 2023), there is a notable lack of studies focusing on Algerian university teachers, particularly regarding their readiness for in-service training. This gap is critical, as insufficient preparation can hinder EMI's effectiveness and negatively affect student outcomes (Carroll & Daniels, 2024; Murphy & Wright, 2023). Although various EMI training models have been developed internationally (Kumar & Singh, 2023), they often overlook the contextual challenges unique to Algeria. Therefore, this study aims to evaluate the current state of teacher preparedness in Algerian higher education institutions, examine their challenges and attitudes toward EMI, assess the impact of existing training programs, and propose targeted improvements to support effective EMI implementation (Galloway & Rose, 2021; Macaro et al., 2022; Thompson & Green, 2023).

1. Statement of the Problem

English has become the global language of science, education, and medicine. In Algeria, where French has long dominated higher education; especially in medical faculties; English is traditionally taught only as a foreign language. However, recent government efforts, including the 2022 decision to introduce English from elementary school and the 2023 directive to transition to English in higher education, signal a strategic shift. Despite these initiatives, English in Algerian universities remains limited to a standalone subject, not yet a fully adopted medium of instruction. This gap poses several challenges, especially in medical education, where proficiency in Medical English is essential. Focus group discussion used as a pilot study to confirm both the urgency of the transition and the obstacles they face. Therefore, this study seeks to explore the attitudes, perspectives, and readiness of medical educators to implement English as the medium of instruction, and to identify the main challenges involved in this transition, especially in-service training. Consequently, the key research question arises: "What are the attitudes, perspectives, and challenges of medical educators? and how prepared and ready are they to implement English as the medium of instruction in their classes?"

2. Aims of the Study

English is widely recognized as an essential skill for medical professionals, and its use as a medium of instruction is becoming increasingly important in medical education. This study aims to:(1) Explore the medical educators' attitudes and perspectives regarding the use of English as the medium of instruction, at the Faculty of Medicine, Batna2 University. (2) Assess the readiness and preparedness of medical educators to transition from French to English as the language of instruction in medical classes. And (3) Identify the pedagogical and linguistic challenges that medical educators encounter when implementing

EMI in their teaching. And finally (4) Understand the perceived benefits and challenges linked to shifting from French Medium Instruction (FMI) to EMI.

3. Research Questions

To achieve the above aims, this study seeks to answer the following questions: (1) What are the perspectives of medical educators at Batna2 University concerning the implementation of English as the medium of instruction in their classes? (2) How prepared are medical educators for the transition from French to English as the main language of instruction? (3) What pedagogical and linguistic difficulties do medical educators face when applying EMI in their courses? Finally (4) What benefits and challenges do educators associate with the transition from FMI to EMI?

4. Research Hypotheses

Grounded in the study's objectives and context, the research proposes the following hypotheses: (H1) Medical educators may hold a range of positive and/or negative perspectives regarding the use of EMI. (H2) Medical educators may demonstrate a varying degree of preparedness and readiness to adopt EMI. And (H3) Medical educators are likely to encounter challenges of in-service training in EMI settings.

5. Literature Review

5.1 Medical English: Definition, Scope, and Teaching

Medical English is the specialized use of the English language in healthcare contexts, including clinical practice, biomedical research, and medical education. It is characterized by technical vocabulary and structured communication essential for diagnosis, treatment, and scientific exchange. Maher (1986, p. 117) defines it as a "restricted repertoire" tailored to specific professional settings. It has evolved into a formalized subset of ESP, with researchers since the 1970s examining its role in medical discourse (Fisher & Todd, 1983, p. 25). Recent reviews emphasise that ESP in the MENA region reflects digitalisation, AI- integration, and evolving practitioner roles (Bouguebs, Rouaghe, & Perrodin, 2023; Assassi, 2024; Assassi & Rouaghe, 2024).

English has become the dominant global language in medicine, used widely in both English-speaking and non-English-speaking countries. Maher (1986) found that 72% of articles indexed in Medline in 1982 were in English, with countries like Japan publishing a significant share. Pavel (2014, p. 39) emphasizes that medicine and information technology are the fields where English gained the most ground due to its central role in development. Ammon (1994) describes English as the global language of wider communication in medicine. A Japanese study showed that 96.7% of doctors read medical texts in English. Benfield and Howard (2015) report an increase in English-language Medline publications from 72% to 88% between 2016 and 2018, reinforcing its status as a lingua franca across countries like Sweden, the Netherlands, Egypt, and Syria.

Teaching Medical English, also known as EMP, requires aligning language instruction with the needs of medical participants. Courses focus on terminology, communication skills, and content relevant to clinical and academic settings. Erten (2003) notes that many medical terms differ from their everyday English meanings, requiring explicit instruction. Bailey (2000) recommends the use of authentic materials; such as medical texts, biographies, and films; as well as small group discussions on health issues to improve both vocabulary and motivation. A thorough needs analysis is essential to tailor EMP curricula. Although traditional methods are still common, there is a growing emphasis on incorporating multimedia tools and learner-centered strategies. Recent Algerian research also emphasizes this, highlighting how second-year medical students at the University of Bejaia require targeted EMP courses focusing on speaking and vocabulary as priority skills (Bououden & Rouaghe, 2025)

5.2 EMI: Definition and Implementation

EMI is widely defined by scholars such as Dearden (2014), Rose et al. (2021), Sah (2020), and Zare-ee and Hejazi (2017) as a teaching approach where English is used to deliver academic subjects to students in settings where English is not the native language. This model prioritizes both the mastery of subject content and the development of English language skills, emphasizing classroom interactions and language learning alongside the academic material. EMI is sometimes referred to as a bilingual teaching

approach because it often integrates English with students' native languages to aid comprehension of complex topics and learning resources.

When it comes to implementation, EMI involves turning educational policies into practical programs and classroom practices. This step is essential to realize the goals of EMI but is frequently challenged by numerous obstacles (Viennet & Pont, 2017). Although EMI programs began in Europe, they have since expanded to regions like Asia and the Middle East, where they serve to promote internationalization, attract students from abroad, and strengthen local educational competitiveness. In many non-English-speaking countries, EMI is adopted primarily to enhance students' English proficiency. However, research reveals that there is often a gap between the intended policy goals and what actually takes place in practice, with institutional factors sometimes hindering smooth implementation. Teachers are central to developing feasible EMI practices, and continuous support in language development is critical for EMI to succeed, particularly in countries where English is not the dominant language (Kim et al., 2024, pp. 3–4).

5.2.1 EMI: Growth and Importance

English has become the dominant language of academia and international communication, leading to widespread adoption of EMI in higher education institutions worldwide. While some debate the extent of a global surge in EMI, its significant presence across universities; including those in Algeria is undeniable (Dearden & Macaro, 2016, pp. 457–459). English is central to the dissemination of academic knowledge and facilitates communication among researchers, educators, and students internationally. It remains the primary language in science, research, and technology, making it essential for countries aiming for international academic competitiveness (Faci & Azz, 2021–2022).

Historically, EMI's roots extend to colonial periods when countries like Ghana and Hong Kong adopted English as the main language of instruction, and Malaysia retained English for education until independence, later emphasizing it in science and mathematics to enhance proficiency and employability (Roy-Campbell & Qorro, 1998; Stephen, 2013; Gill & Shaari, 2019). In Zimbabwe, English replaced indigenous languages under British colonial rule and became dominant in education, business, administration, and international relations despite resistance (Bamgbose, 1991; Challiss, 1980; Hungwe, 2007; Early & Norton, 2014). EMI supports linguistic competence, cultural awareness, access to English-language academic resources, and engagement with global technology. It also improves students' career prospects by opening pathways for international education and employment. In Algeria, EMI is widely recognized as a key component in enhancing global competitiveness and fostering academic knowledge acquisition, with language mastery viewed as a natural outcome of studying through English (Alfehaid, 2018; Ngang Tang, 2020, pp. 98–99; Wanphet & Tantawy, 2018).

5.2.2 EMI: Use and Effectiveness

As for its use, the language of instruction refers to the language used in classrooms for teaching and learning activities, including verbal directives and interactions between teachers and students. It is a fundamental medium for conveying educational content. The global trend of transitioning from non-English to EMI has elevated English's status in educational systems worldwide. However, challenges persist in implementing EMI, such as inadequate educational infrastructure, low English proficiency among educators, and insufficient teacher training programs in countries like Ghana, Turkey, and Rwanda (Dearden,2014; Haryanto, 2012).

Regarding its effectiveness, EMI affects the students' academic achievement and their intelligence is among the most significant contributors to success. Past research showed that intelligence was a good predictor of academic success (Elshout & Veenman, 1992; Stenberg & Kaufman, 1998; Stinebrickner & Stinebrickner, 2008). Furthermore, numerous other research works demonstrated that, alongside intelligence, the personality traits of students had a strong impact on academic results (Allik & Realo, 1997; Dollinger & Orf, 1991; Premuzic & Furnham, 2003).

Additionally, language skills are other crucial elements affecting academic success. Theoretically speaking, both negative and positive influences of EMI on the academic success of students were

possible. Hence, English instruction offers higher-quality support materials, such as textbooks, articles, and practice questions, compared to local languages. However, inadequate English proficiency can lead to less effective lectures and educational activities. Therefore, both students and faculty members should focus on improving their English proficiency to enhance the quality of education.

5.2.3 Challenges Faced by Medical Educators in EMI Contexts

Medical doctors teaching in EMI settings face several interrelated challenges, with language proficiency being central. Delivering complex medical content in English demands not just general fluency but also mastery of specialized terminology (Macaro, 2018; Wilkinson, 2013; Macaro & Han, 2023). Weak language skills can hinder communication, reduce content accuracy, and limit student engagement, issues that are especially critical in medical education.

Beyond language, educators often struggle to shift from traditional lectures to more interactive, student-centered methods better suited to EMI contexts (Basturkmen, 2018; Lasagabaster, 2022). Many lack formal EMI training, making it difficult to support student learning effectively. Psychological readiness also plays a role, as low confidence in language or teaching abilities can lead to avoidance of interaction or oversimplified instruction (Galloway & Ruegg, 2021; Carroll & Daniels, 2024; Macaro et al., 2022), increasing stress for already overburdened medical faculty. Wider challenges in EMI implementation include a lack of materials, limited training, and insufficient focus on communication skills (Ball & Lindsay, 2013; Kaplan et al., 2011; Yang et al., 2019). In Turkey and Denmark, many lecturers reported receiving no EMI-specific training (Dearden et al., 2016; Werther et al., 2014), while existing programs often focused on language over pedagogy (Margić & Vodopija-Krstanović, 2018; Tsui & Ngo, 2017).

Although some studies suggest EMI may ease instruction for certain faculty (Airey, 2012; Unterberger, 2012), others highlight persistent struggles across disciplines like Math, Science, Physics, and Psychology (Costa, 2012; Macaro, 2018; Vu & Burns, 2014; Doiz et al., 2012). Fenton-Smith et al. (2017) call this the "gap in EMI promise"—the disconnect between expected benefits and actual teaching challenges. These challenges are grouped into linguistic (Ammon & McConnell, 2022), cultural (Bradford, 2016), structural (Byun et al., 2011), and institutional (Bradford, 2016, pp.101–102) categories. Despite these, EMI in Algeria presents a valuable opportunity to modernize higher education and broaden students' global prospects. This paper examines these issues to support more effective EMI implementation.

5.2.4 Medical Educators' Preparedness and Readiness for EMI in Medical Classes

Teacher preparedness and readiness are vital for effective EMI in medical classrooms. Preparedness involves teachers' training and familiarity with EMI, while readiness reflects their confidence in applying it. Research shows that language proficiency, teaching experience, and positive attitudes toward EMI strongly influence teachers' readiness (Dearden, 2014). Many educators feel unprepared due to limited training and low English proficiency, hindering effective content delivery. In contrast, well-prepared teachers exhibit greater confidence and better teaching outcomes. Therefore, universities should provide tailored professional development aligned with teachers' needs (Crosling, 2020). In the Algerian medical context, educators' readiness is critical for successful EMI policy implementation. However, studies reveal ongoing challenges in English proficiency and pedagogical skills that undermine confidence, especially in academic speaking and writing (Rahmani, 2021; Shrestha, 2022; Prabjandee, 2022).

5.2.5 Medical Educators' Attitudes and Perceptions Toward EMI

The adoption of EMI is closely tied to the internationalization of higher education. Rahmani (2021) explains that EMI bridges institutions globally, enhances research quality, and can elevate Algerian universities if international standards are followed. The Cambridge Dictionary defines internationalisation as making something international, which EMI facilitates through global collaboration and increased academic visibility. Prabjandee (2022) supports this view, noting that EMI promotes student mobility and international presence, though it also creates pedagogical challenges.

Teachers are often unprepared, lacking English proficiency, pedagogical training, and confidence due to concerns over their accents and skills.

In Algeria, Rahmani (2021) found that while many teachers recognize EMI's long-term benefits, opinions are divided; some support the reform, while others struggle due to limited English abilities in teaching and administration. Suggested solutions include English training for both teachers and students and financial incentives for progress. Shrestha (2022) adds that in non-English-speaking countries, EMI implementation is hindered by low proficiency and teaching anxiety. These concerns are echoed in research by Tatzl (2013), who emphasizes that educators' perceptions of EMI, shaped by their language comfort and beliefs, impact its success. Addressing these perceptions through well-designed training is essential to ensure a supportive and effective EMI environment. Additionally, Llurda (2019) notes that medical educators' concerns about insufficient training and resources can affect teaching quality. Therefore, specialized, ongoing professional development is vital to equip medical educators for effective EMI and foster positive attitudes in Algeria's medical education system (Rahmani, 2021; Shrestha, 2022).

5.3 In-Service Training of Medical Educators for EMI

The effectiveness of in-service training programs for medical educators in EMI settings has been increasingly emphasized in recent years. Programs that focus solely on either language acquisition or subject knowledge often fall short, as they overlook the essential integration of both components. Therefore, in-service training should not only address English language proficiency but also equip educators with pedagogical strategies tailored to teaching complex medical content in multilingual and multicultural classrooms. These programs must be structured to provide continuous support, including peer feedback, mentoring, and teaching simulations, to help medical educators adapt their instruction for diverse student populations. Additionally, flexible learning opportunities, such as online modules or blended formats, can ensure that professional development fits within the demanding schedules and evolving career paths of medical educators.

5.3.1 Challenges of In-Service Training for Medical Educators in EMI Settings

The challenges in providing in-service training for medical educators in EMI settings are multifaceted. A primary obstacle is the lack of adequate resources, including insufficient funding, limited time, and a shortage of qualified trainers. Additionally, wide variations in educators' English proficiency necessitate flexible, differentiated training that responds to individual needs. Resistance to change is another significant issue; some educators may feel overwhelmed by the added pressure of teaching complex content in a non-native language, particularly without proper institutional support. Furthermore, cultural and contextual factors contribute to the complexity of EMI implementation. In non-English-speaking countries, educators often struggle to adjust their instruction to accommodate students from diverse linguistic and cultural backgrounds. Therefore, effective in-service training must holistically address these challenges, equipping educators with both linguistic competence and pedagogical strategies tailored for EMI contexts (Llurda, 2019).

5.4 Previous Studies

Recent research highlights the growing adoption of EMI in medical education globally, alongside notable challenges. For example, in China, Yang et al. (2018) found that while EMI and non-EMI students performed comparably in exams, educators struggled with inadequate teaching materials, low classroom interactivity, and a lack of medical humanities integration, leading to reliance on peer support and L1 use. In Saudi Arabia, Alshahrani and Phan (2022) identified that students with lower English proficiency faced increased language-related difficulties, advocating for dedicated EMP training within EMI programs. Similarly, Alharbi et al. (2024) reported that Saudi medical students initially struggled with oral communication and comprehension but improved with ongoing exposure. Globally, studies such as by Benfield and Howard (2015) emphasize the importance of peer-assisted learning and active pedagogical approaches like problem-based learning (PBL) to enhance EMI effectiveness. However, as

reported by Zhang et al. (2024), instructors often experience heavy workloads and limited institutional support, impacting teaching quality.

In Algeria, recent investigations reflect a parallel pattern of enthusiasm tempered by practical challenges. Djedi (2024), studying EMI training at the University of M'Sila, revealed that teacher preparation focused mainly on general English rather than discipline-specific EMI pedagogy, underscoring the need for standardized professional development. Bekri Hamerlain (2024) found that Mostaganem University instructors are motivated to implement EMI but face anxiety and practical difficulties delivering subject content in English. At a national level, Ghouali and Haddam (2024) documented ongoing policy efforts, such as starting English instruction in primary schools (2022) and launching teacher training initiatives (2023); but also, widespread perceptions of unpreparedness among educators. Earlier, Benabdallah (2023) surveyed Algerian lecturers and found strong positive attitudes towards EMI's role in internationalization, despite persistent language proficiency gaps and calls for ESP-focused support.

Together, these global and Algerian studies suggest that EMI's promise in medical education hinges on comprehensive instructor training, tailored ESP programs, sufficient resources, and institutional backing to address linguistic and pedagogical barriers effectively.

6. Method and Procedures

In this research, a descriptive statistical analysis was employed to examine the views and experiences of medical educators working within the Faculty of Medicine. The study population included all faculty members in the department, from which a sample of 160 educators was randomly selected. This was done using the one-fifth random sampling technique, a method recognized for its effectiveness in obtaining representative samples without the need to survey the entire population (Kumar & Singh, 2023; Lasagabaster, 2022).

To collect data, the researchers developed an online questionnaire, which was distributed using Google Forms. This digital tool was chosen due to its simplicity, accessibility, and effectiveness in gathering responses quickly and efficiently; qualities that have made it a popular choice in contemporary educational studies (Martinez & Taylor, 2023; Shrestha, 2022). This approach also proved practical for reaching faculty members across different departments and schedules. Prior to launching the full survey, the questionnaire was subjected to a pilot study aimed at evaluating the clarity, structure, and relevance of the questions. Feedback from the pilot group helped identify areas needing improvement, and the instrument was revised accordingly to ensure better alignment with the research objectives (Benabdallah, 2023).

To confirm the reliability of the questionnaire, the Cronbach's Alpha coefficient was calculated. The results indicated that the instrument achieved an acceptable level of internal consistency, providing confidence in its use for the main study (Macaro, 2022; Rouaghe&Assassi, & Rahnama, 2025). Once finalized and validated, the questionnaire was shared electronically with the selected group of 160 participants via Google Forms. The data collected from their responses provided the foundation for the descriptive statistical analysis, which aimed to uncover key trends, insights, and attitudes related to the implementation of EMI in the context of medical education (Alharbi, Al-Hazmi, & Alshahrani, 2024; Hopkyns, Zoghbor, & Hassall, 2024).

7. Results and Discussion

The participants' background information is summarized in Table 1 below:

Table 1: Medical Educators' Demographics and English Language Experience

Category	Options	Percentage
Age Distribution	51–70	16.9%
	41–50	15.6%
	30–40	10.6%
Gender	Female	60.6%
	Male	39.4%
Studying English in Free Time	No	64.4%
	Yes	35.6%
English Course Before	No	51.9%
	Yes	48.1%
English Tests	Yes	71.9%
	No	28.1%

The data, in Table 1, reveals key insights into the profile and language background of medical educators at Batna 2 University. Most respondents fall within the older age brackets, with 51–70 years (16.9%) and 41–50 years (15.6%) being the most represented, suggesting a mature and experienced teaching workforce. In terms of gender, (60.6%) of them are female, indicating a female-dominated academic environment.

Regarding English language engagement, a significant majority (64.4%) do not study English in their free time, which may point to limited motivation, time, or resources outside formal settings. Additionally, just under half (48.1%) have taken an English course, while slightly more (51.9%) have not, indicating a mixed level of formal English training.

As for the participants' self-reported English levels and test performance, the majority of them (71.9%) have taken English tests, implying that while structured learning may be lacking, English assessment is common, perhaps due to institutional or professional requirements. Overall, while many educators have been exposed to English through testing, fewer have had consistent or voluntary engagement with the language. In summary, while many respondents had no interaction with English outside academic or professional settings, a minority engaged in varying degrees of self-study, from very casual to long-term, structured efforts. The findings of integrating English as a medium of instruction in teaching medical students are summarized in the tables below:

Table 2: Reasons and Importance of Learning English

Category	Subcategory	Fr.	%
Reasons for Learning English	To teach	138	86.3%
	To participate in international conferences	123	76.9%
	To write medical reports/papers	105	65.6%
	To attend any academic context	97	60.6%
	To perform activities in my field of study	96	60.0%
	To have access to information	99	61.9%
	To study medical resources	99	61.9%
	To interact with people	93	58.1%
	To correspond with English speakers	85	53.1%
	To achieve a sufficient score on the language test	41	25.6%
	Others	0	0.0%

	Mean	89.5	57.9%
	Standard Deviation (SD)	27.0	17.4%
Importance of Learning English	As a medical teacher	91	56.9%
	As an individual	45	28.1%
	As a prospective medical doctor	24	15.0%
	Mean	53.3	33.3%
	Standard Deviation (SD)	28.0	17.3%

Table 2 indicates that the primary motivation for learning English among respondents is professional, with an overwhelming 86.3% aiming to learn the language to teach. This is followed closely by a significant portion also learns English to access academic contexts (60.6%), perform field-related activities (60.0%), and study medical resources (61.9%). These high percentages highlight a strong link between English proficiency and participants' academic and medical career advancement. Social and communication-oriented reasons, such as interacting with people (58.1%) and corresponding with English-speakers (53.1%), are also relevant, but slightly less emphasized. The least common reason was to achieve a sufficient score on a language test (25.6%), showing that formal certification is less of a priority compared to practical usage in professional and academic settings. The mean frequency of responses is 89.5, with a standard deviation of 27, indicating moderate variation but overall high agreement on the main reasons.

When looking at how participants perceive the importance of English, we see a slightly different focus. A majority (56.9%) believe English is important as medical teachers, suggesting they see it as a critical tool for delivering content and engaging in scholarly communication. Only 28.1% marked it as important on a personal level, and an even lower 15% viewed it as important as future medical doctors. The lower percentages here may suggest that participants associate English more with teaching and academic success than with everyday personal or clinical use. The mean frequency is 53.3, with a higher standard deviation of 28, indicating greater variation in how importance is perceived compared to the reasons.

Therefore, the participants demonstrate stronger agreement and engagement with the reasons for learning English than with its perceived importance, which is supported by a higher mean frequency (89.5 vs. 53.3) and a slightly lower standard deviation (27.0 vs. 28.0) in the "Reasons" section. English is widely seen as a professional tool, especially valuable for teaching, publishing, and attending international conferences. In contrast, fewer respondents emphasized its importance in more personal or clinical roles, such as being a future doctor or for individual use. This disparity suggests that while English is recognized as vital for academic and teaching advancement, its connection to clinical practice or personal development is less appreciated. The gap in perception points to a potential area for curriculum improvement, where educators might emphasize the broader benefits of English proficiency beyond academic use.

Table 3: Attitudes/Perspectives toward EMI

Attitude	*Fr.*	%	Numerical Value
Favorable	122	76.3%	1
Unfavorable	38	23.8%	0
Total	160	100%	
Mean			0.7625
SD			0.4256

Table 3 reveals a generally positive attitude toward English language learning among the 160 respondents. A significant majority (76.3%) expressed a favorable view, while only 23.8% reported an

unfavorable stance. When translated into numerical values (Favorable = 1, Unfavorable = 0), the mean score is 0.76, indicating that most respondents lean positively toward learning English. The standard deviation of 0.43 suggests a moderate level of variation in responses, while attitudes are mostly positive, there remains a noticeable minority who are less enthusiastic.

This generally favorable outlook is promising for any initiatives involving English as a Medium of Instruction (EMI), especially in medical education at Batna 2 University. However, the presence of nearly one-fourth of respondents with an unfavorable attitude highlights the need to address possible concerns such as confidence, relevance, or prior negative experiences with English learning. Tailored support, motivation-building strategies, and professional development could help shift these attitudes in a more positive direction.

Table 4: Self-Perceived English Language Proficiency

Skills	V. Good	Good	Average	Weak	Mean	SD
Speaking	1	25	90	44	2.04	0.66
Listening	1	42	84	33	2.14	0.71
Reading	12	74	58	16	2.56	0.82
Writing	8	55	80	17	2.41	0.77
Grammar	1	35	94	30	2.15	0.68
Vocabulary	1	36	95	28	2.16	0.68
Pronunciation	4	34	83	39	2.08	0.73
Communication	1	21	91	47	1.99	0.69
Translation	4	38	90	28	2.22	0.73

The participants' self-perceived evaluation of English skills, Table 3, shows that most participants rate their abilities as average, particularly in speaking, grammar, vocabulary, and communication. Mean scores (2.0–2.5/4) indicate low proficiency, which mostly fall between 2.0 and 2.5 on a 4-point scale. Skills like reading and writing appear to be stronger areas, with reading receiving the highest average score (2.56), suggesting that participants feel more confident when processing written information.

In contrast, oral communication skills, such as speaking, pronunciation, and interactive communication, are rated lower overall. Speaking, for example, has the lowest mean score (2.04) and a noticeable number of participants identified as "weak" in this area. Pronunciation and communication followed the same trend, highlighting that these real-time, verbal skills are more challenging for many. The standard deviation values indicate a moderate spread in responses, meaning there is some variation in how confident individuals feel, but not extreme. This suggests a shared experience among participants—most are managing with the language, but not yet mastering it. Overall, while participants show a basic to moderate level of proficiency, the data suggests a clear need for support in spoken fluency and pronunciation. Strengthening these skills could help bridge the gap between understanding English and using it effectively, especially if English is to be used more widely in academic or professional settings like medical instruction.

Table 5: Participants' Preferences

Category	Sub-category	Fr.	%
Preferred English Course Types	English for Medical Purposes (EMP)	118	73.8%
	English for General Purposes (GE)	70	43.8%
	English for Academic Purposes (EAP)	68	42.5%
	English for Occupational Purposes (EOP)	27	16.9%
	Others	0	0.0%
	Mean	56.6	35.4%
	SD	40.45	25.28%
Preferred Topics	Literature	25	15.6%
	Medicine	124	77.5%
	Health	81	50.6%
	Pharmacy	41	25.6%
	General English	91	56.9%
	Technology and Inventions	40	25.0%
	Others	0	0.0%
	Mean	57.43	35.9%
	SD	34.37	21.5%
Preferred Learning Environment	Traditional classroom (Face-to-face teaching)	96	60.0%
	Blended learning (Face-to-face + online)	61	38.1%
	Online classroom	37	23.1%
	Synchronous distance learning	14	8.8%
	Asynchronous distance learning	16	10.0%
	Others	0	0.0%
	Mean	37.33	23.33%
	SD	30.63	19.16%
Preferred Assessment Type	Self-evaluation	31	19.4%
	Product-oriented evaluation (A series of examinations, quizzes, etc.)	81	50.6%
	Process-oriented evaluation(Assignments,group works etc	40	25.0%
	No assessment	5	3.1%
	Others	0	0.0%
	Mean	31.4	19.6%
	SD	30.38	18.0%

Table 5 presents a clear picture of participants' preferences when it comes to English courses. A large majority (73.8%) indicated a strong interest in English courses specifically designed for medical purposes, reflecting a direct alignment with their academic and professional goals. Courses in general English (43.8%) and academic English (42.5%) were also popular, suggesting that while participants prioritize medical content, they also recognize the value of broad language competence that supports diverse communication needs. Conversely, English for occupational purposes attracted minimal interest (16.9%), and none of the respondents selected alternative course types. These results, combined with a high mean (56.6) and a wide standard deviation (40.45), point to a clear but varied preference landscape, where medical-focused language training takes precedence.

When considering topic preferences, the findings once again show a strong connection to participants' professional context. Medicine emerged as the top choice, with (77.5%) selecting it, reinforcing its central importance in their learning goals. General English was the second most chosen topic (56.9%), followed closely by health-related themes (50.6%), indicating that participants see

language as both a practical and professional tool. Pharmacy (25.6%) and technology and inventions (25%) received moderate attention, while literature was seen as less relevant, selected by only 15.6%. No participants chose "Others," which suggests the topic list was well-tailored to their interests. With a mean of (57.43) and a standard deviation of (34.37), the data points to strong overall interest in medically aligned topics, alongside some variation in secondary preferences.

Regarding learning environments, the traditional face-to-face classroom was clearly the most preferred, selected by 60% of respondents. This preference likely reflects the value placed on direct interaction and structured learning, particularly in disciplines like medicine where in-person feedback and engagement are critical. Blended learning came next (38.1%), showing that many participants are open to combining in-person and online elements. Fully online options, whether synchronous (8.8%) or asynchronous (10%), were far less popular, possibly due to concerns about effectiveness or lack of interaction. The option for "Others" received no responses. With a mean of 37.33 and a standard deviation of (30.63), the results reveal a clear but somewhat diverse preference, leaning strongly toward traditional and blended formats that offer both engagement and flexibility.

The findings reveal distinct preferences regarding assessment methods in English courses. The majority of respondents (50.6%) prefer product-oriented evaluation, such as examinations and quizzes. This suggests a tendency toward traditional assessment formats that provide clear benchmarks for learning outcomes. These methods are often seen as objective and measurable, which may be why they are favored, especially in structured or professional education contexts like medical English. Meanwhile, 25.0% of participants chose process-oriented evaluation, such as assignments and group work. This indicates a significant portion of participants value continuous assessment that reflects effort, collaboration, and the development of skills over time. It may also reflect the practical nature of language learning, especially in occupational or academic settings. Self-evaluation was selected by 19.4% of participants. This figure reflects a moderate interest in learner autonomy and metacognitive strategies, where individuals assess their own progress and identify learning gaps. While less popular than traditional testing, this method is still valued, particularly by more reflective or advanced participants. A small minority (3.1%) opted for no assessment, which might reflect a preference for learning environments focused solely on participation, communication, or informal feedback rather than formal evaluation. No respondents chose the "Others" option, suggesting that the provided categories were sufficiently comprehensive to capture participants' preferences. Overall, the dominance of product-oriented evaluation aligns with academic and professional settings, but the presence of process-oriented and self-evaluation preferences highlights a desire among participants for more holistic and personalized approaches to assessment.

Options	%	Fr.	Assigned Score	(x - Mean)²	f(x - Mean)²
General medicine topics	13.1%	21	1	2.4336	51.10
Specialized medicine topics	13.8%	22	2	0.3136	6.90
All of them	65.0%	104	3	0.1936	20.13
Others	0.0%	0	0	6.5536	0.00
Total	100%	147	/	/	78.13

Table 6: Suggested Medical Topics in the Course

The data reflect medical educators' preferences regarding the type of medical content to include in an EMP course. The most frequently chosen option was "All of them", representing 65% of responses (104 out of 147). This dominant choice clearly suggests a strong preference for an integrated curriculum that includes both general and specialized medical topics, rather than focusing on just one domain. A smaller portion of respondents chose either "General medicine topics" (13.1%) or "Specialized

medicine topics" (13.8%). These relatively low percentages imply that most educators do not see value in limiting the course to a single focus. The absence of any responses under "Others" (0%) also indicates that the pre-defined options were comprehensive enough to capture participants' expectations.

The mean score of 2.56 (on a scale where 1 = general, 2 = specialized, and 3 = both) reinforces the finding that the average preference leans heavily toward a combination of both types of topics. The relatively low standard deviation of 0.73 indicates consistency in respondents' choices, meaning most participants leaned toward similar responses without wide variability. Therefore, Medical educators at Batna 2 University strongly favor a comprehensive English for Medical Purposes course that includes both general and specialized topics. The high frequency and consistency in this choice indicate a clear consensus that such an approach is best suited to meet the academic and professional needs of students. This preference also reflects an awareness of the diverse and evolving linguistic demands of the medical field, where both foundational and specialized knowledge are essential.

Table 7: Participants' Ranking of Language Skills by Importance

Language Skills	Fr.	%
Speaking	94	58.8%
Listening	60	37.5%
Reading	60	37.5%
Writing	59	36.9%
Mean	68.25	42.68%
SD	16.31	9.89%

Table 7 reveals that among the four core language skills, speaking, listening, reading, and writing, speaking is considered the most important by the majority of participants, with (58.8%) giving it the highest priority. This strong preference highlights the essential role of verbal communication in both academic and professional medical contexts, where clear and confident oral expression is often required. Listening and reading share equal importance at (37.5%) each, suggesting that participants recognize the value of comprehension skills, especially in understanding lectures, medical discussions, and written resources. Writing was selected by 36.9%, which, while slightly lower, still shows its relevance, particularly for tasks like writing reports or academic papers. The calculated mean frequency (68.25) and mean percentage (42.68%) indicate a moderate overall preference across the four skills, while the standard deviation (SD = 16.31 for frequency and 9.89% for percentage) reflects a noticeable variation in responses. This variation suggests that while speaking is clearly dominant, preferences for the other skills are more evenly spread, showing the multifaceted needs of medical educators when it comes to English language proficiency

Table 8: Frequency of the Participants' Language Skills Difficulties

Skills	Very Often	Often	Sometimes	Rarely	Never	Mean	SD
Reading	25 (15%)	65 (39%)	30 (18%)	20 (12%)	5 (3%)	3.61	1.14
Writing	25 (13%)	55 (29%)	65 (34%)	15 (8%)	2 (1%)	3.60	1.05
Speaking	50 (26%)	50 (26%)	50 (26%)	5 (3%)	2 (1%)	3.91	1.04
Listening	45 (24%)	50 (27%)	50 (27%)	5 (3%)	2 (1%)	3.85	1.01
Spelling	30 (17%)	55 (31%)	55 (31%)	10 (6%)	2 (1%)	3.68	1.06
Vocabulary	25 (14%)	55 (31%)	60 (34%)	20 (11%)	2 (1%)	3.53	1.07
Grammar	25 (14%)	55 (31%)	60 (34%)	20 (11%)	2 (1%)	3.53	1.07
Translation	25 (14%)	55 (31%)	60 (34%)	10 (6%)	2 (1%)	3.66	1.04

The analysis of the reported difficulties in Medical English skills reveals that the participants face moderate to high challenges across all areas, with writing, translation, and grammar being the most problematic. Speaking and listening had the highest mean scores (3.91 and 3.85), indicating consistent

difficulty, while reading and spelling showed comparatively lower difficulty levels. Standard deviations across skills (around 1.0–1.1) suggest moderate variation among them. The frequent selection of "sometimes" reflects fluctuating confidence rather than consistent mastery. These findings highlight the need for targeted instruction in productive skills, particularly writing and speaking, as well as focused teaching of grammar and vocabulary in medical contexts. Incorporating authentic materials, multimedia tools, and real-life medical content into teaching can enhance understanding and engagement. A needs-based approach remains essential to tailor support according to specific medical educator challenges within Medical English education.

Table 9: The Participants' Preferences for Sub-Skills

	Very Important	Important	Less Important	Mean	SD
Speaking Sub-Skills					
Asking questions	105	50	10	55.00	41.53
Giving oral presentations	125	32	3	53.33	51.01
Discussion in pairs	113	42	7	54.00	45.90
Speaking to patients	102	43	15	53.33	43.69
Discussion in groups	105	40	15	53.33	44.10
Speaking fluently	90	58	18	55.33	36.08
Participating in class	108	48	7	54.33	42.09
Listening Sub-Skills					
Listening to lectures	110	48	7	55.00	42.35
Listening to instructions	75	25	10	36.67	28.01
Listening to patient history	53	42	12	35.67	21.87
Listening to group discussion	56	37	14	35.67	21.83
Listening to media	55	35	15	35.00	20.49
Following lectures	32	45	20	32.33	12.42
Following instructions	48	47	12	35.67	20.29
Reading Sub-Skills					
Reading lectures	105	35	20	53.33	43.59
Reading instructions	85	65	12	54.00	36.47
Reading information	58	75	30	54.33	23.19
Reading summaries	58	72	28	52.67	23.08
Reading stories	68	80	42	63.33	20.94
Reading guidelines	38	78	44	53.33	22.54
Reading lab results	40	65	35	46.67	15.28
Reading literature	72	62	25	53.00	23.19
Writing Sub-Skills					
Writing prescriptions	68	55	38	53.67	15.39
Writing lab reports	65	70	25	53.33	22.55
Writing medical projects	85	48	20	51.00	32.38
Writing articles	105	40	15	53.33	45.09
Note-making	58	80	22	53.33	23.03
Writing reports	60	75	25	53.33	23.09
Writing assignments	58	78	22	52.67	22.94
Answering exam questions	70	62	18	50.00	26.87

The analysis of English language sub-skills shows that speaking is the most prioritized area, with speaking fluently rated highest (Mean = 55.33, SD = 36.08), followed closely by participating in class (Mean = 54.33, SD = 42.09) and discussion in pairs (Mean = 54.00, SD = 45.90). These high means

reflect that over 65% of participants consider these sub-skills very important, emphasizing the value placed on verbal interaction and classroom engagement. In the listening category, listening to lectures stands out with a Mean of 55.00 and SD of 42.35, while other sub-skills like listening to instructions (Mean = 36.67, SD = 28.01) and following lectures (Mean = 32.33, SD = 12.42) received much lower importance, with only about 20–25% rating them as very important. Reading sub-skills were also rated highly, especially reading stories (Mean = 63.33, SD = 20.94) and reading information (Mean = 54.33, SD = 23.19), showing strong interest in both academic and engaging materials. For writing, writing prescriptions had the highest rating (Mean = 53.67, SD = 15.39), and most writing tasks, including writing articles and note-making, hovered around a mean of 53.33. Overall, the data reflects a learner preference for communication-driven and practical English skills, with means generally above 50 and standard deviations indicating moderate to high variability, particularly in speaking and reading tasks. This suggests that while core skills are widely valued, individual learner needs and experiences still vary.

Table 10: Suggested English Language Aspects for Course Focus

Aspects of English Language	Fr.	%
Specific grammar	86	53.8%
Technical vocabulary	99	61.9%
General vocabulary	96	60.0%
Reading comprehension	118	73.8%
Listening comprehension	121	75.6%
Speaking skills	139	86.9%
Writing skills	114	71.3%
Communicative skills	131	81.9%
Others	0	0.0%
Mean	113.0	70.7%
SD	17.66	10.7%

The data highlights clear learner priorities regarding which English language skills they believe should be emphasized in their courses. Out of the 160 participants, the top three areas suggested for focus are: Speaking skills (86.9%), Communicative skills (81.9%), and Listening comprehension (75.6%). This trend strongly reflects the participants' desire to develop practical and interactive language abilities. The emphasis on speaking and communication indicates that participants are not just interested in academic success, but in real-world fluency, particularly in professional or clinical environments where verbal interactions are frequent and critical.

Reading comprehension (73.8%) and writing skills (71.3%) were also selected by a large number of participants. This suggests that while spoken communication is highly valued, there's still a strong recognition of the importance of being able to interpret and produce written content—skills often needed for documentation, reports, or exams. Interestingly, technical vocabulary (61.9%) and general vocabulary (60%) received similar levels of interest, showing a balanced demand for both domain-specific terms and everyday English usage. This supports the idea that participants are aiming to be versatile in their language use across different contexts, academic, professional, and social.

Specific grammar was chosen by 53.8% of respondents, making it the least emphasized of the core areas (excluding "Others"). While this may suggest grammar is seen as less of a priority, it could also indicate that participants prefer acquiring grammar through contextual learning rather than as a standalone focus. Lastly, no participants selected "Others," which confirms that the predefined categories captured the full scope of participants' priorities. This not only validates the options provided

in the survey but also points to a shared understanding among participants about what constitutes essential language skills.

In summary, the results emphasize a learner-driven shift toward functional communication and real-life application, without disregarding the foundational skills of reading, writing, and vocabulary. Effective English courses, particularly those designed for academic or professional use, should therefore aim to integrate all these skills, with a strong focus on speaking and communicative competence, to align with the participants' expectations and needs.

Table 11: Learning Styles and Strategies Preferences

Learning Styles	**I Like**	**I Do Not Like**		
Listening to lectures	155 (97%)	5 (3%)		
Writing grammar exercises	80 (50%)	25 (16%)		
Writing paragraphs	83 (52%)	22 (14%)		
Reading English texts	91 (57%)	14 (9%)		
Studying grammar rules	78 (49%)	30 (19%)		
Doing pair work	63 (39%)	43 (27%)		
Working in groups	71 (44%)	34 (21%)		
Speaking in English	85 (53%)	19 (12%)		
Practicing conversations	95 (59%)	8 (5%)		
Solving problems	76 (48%)	30 (19%)		
Acting up scenes	79 (49%)	29 (18%)		
Doing listening exercises	92 (58%)	13 (8%)		
Learning Strategies	**Not at all**	**Little**	**Much**	**Very Much**
I like working alone	31	52	34	44
I like pair work in the classroom	19	57	50	35
I like group work	26	39	59	37
I like whole class work	29	57	46	29

The analysis of the combined data on learning styles and strategies among 160 medical educators reveals a strong preference for auditory and communicative learning activities. An overwhelming majority (97%) enjoy listening to lectures, indicating a reliance on traditional instruction. High percentages also favored practicing conversations (59%), doing listening exercises (58%), and reading English texts (57%), highlighting a preference for interactive and receptive language skills. Productive skills like speaking (53%) and writing paragraphs (52%) were also moderately preferred, while activities, such as doing pair work (39%) and working in groups (44%), received lower but still notable support, suggesting mixed feelings toward collaborative tasks. Regarding learning strategies, (60%) preferred group work frequently or very much, compared to only (49%) who preferred working alone. While (53%) valued pair work, only (47%) expressed similar enthusiasm for whole-class work. Overall, the findings suggest that most educators value active, student-centered engagement and recognize the importance of integrating varied instructional strategies to enhance language proficiency and teaching effectiveness in EMI contexts.

Concerning the use of EMI, they are asked, "How is English being used as a Medium of Instruction in medical classes?

The analysis of data from 160 participants reveals that a significant majority (82.4%) were familiar with EMI, indicating strong awareness and general support for its use. When asked about the meaning of EMI, most participants (35.9%) recognized its diverse nature by selecting "All of them," while others associated EMI mainly with teaching scientific courses in English (26.7%) or using English in native-speaking contexts (23.5%). A majority (79.4%) supported shifting the primary language of instruction from French to English, reflecting positive perceptions of the benefits of English in education

and its global importance in scientific communication. However, some expressed concerns related to language barriers and adjustment challenges. Furthermore, 94.1% believed EMI is necessary in medical education, justifying this by highlighting English as the language of science and its dominance in medical research and publications. Most participants (85.3%) had not yet taught subjects in English, but those who did reported modules such as Pulmonology and Paediatrics. Regarding student feedback, (40%) noted that students found EMI courses understandable and accepted the approach, though (20%) indicated difficulties. These insights underscore the growing recognition of EMI's role in medical education, alongside the challenges faced in implementation and the need for tailored support to facilitate its wider adoption.

Regarding the question, "What are the perceptions, readiness, and in-service training needs of medical educators regarding the implementation of EMI? the majority of medical educators (97%) expressed positive perceptions toward the generalisation of EMI in Algerian universities, recognizing English as the dominant language of science, research, and international communication. They viewed EMI as a valuable tool to enhance teaching quality, elevate academic standards, and foster alignment with global educational practices. Many emphasized that EMI could also support language skill development for both educators and students. However, despite this strong support, concerns about implementation readiness emerged. Only (50%) of educators felt prepared to adopt EMI in their medical classes, a divide that closely reflected whether they had received relevant training.

Notably, (67.6%) of the participants did not receive any formal training or professional development related to EMI, while those who had undergone training experienced varying durations, from a few weeks to several months. The educators strongly advocated for structured in-service training, including workshops, international programs, and Medical English modules, to bridge the proficiency gap. They also identified key challenges, such as inadequate teaching materials (35.3%), limited classroom interaction (23.5%), and difficulty responding to student questions in English. Although most participants recognized the importance of a high level of English proficiency (85.3%) rated it important or extremely important, the current support infrastructure remains insufficient. The feedback highlighted a generational divide, with younger educators showing more readiness and support for EMI than their senior counterparts. Overall, the findings underscore the urgent need for comprehensive in-service training and strategic planning to ensure a successful and sustainable implementation of EMI in Algerian medical education.

For the question "What are the preferred methods of learning medical vocabulary and grammar? And how frequently is each method used?" The participants have to select one or more choices as far as vocabulary and grammar are concerned.

Table 12: Preferred Methods for Learning Medical Vocabulary and Grammar

Category	Method	Fr.	%
Vocabulary	Using new words	131	81.9%
	Hearing new words	122	76.3%
	Seeing new words	94	58.8%
	Copying new words	70	43.8%
	Others	0	0.0%
	Mean	—	3.93
	Standard Deviation (SD)	—	1.17
Grammar	Oral practice in class	75	46.9%
	Studying grammar rules	45	28.1%
	Doing exercises individually in free time	40	25.0%
	Others	0	0.0%
	Mean	—	2.20
	Standard Deviation (SD)	—	0.85

The data on medical vocabulary learning reveal a strong preference for active and multisensory methods. The majority of respondents prefer "Using new words" (81.9%) and "Hearing new words" (76.3%), suggesting that participants engage more effectively with vocabulary when it is applied in real or simulated contexts. "Seeing new words" is also common (58.8%), while "Copying new words" is less favored (43.8%). The high mean score of 3.93 and a SD of 1.17 reflect an overall inclination toward highly interactive vocabulary acquisition methods, with moderate variation among participants. These findings underscore the need for vocabulary instruction to focus on usage, context, and auditory exposure, rather than passive memorisation.

In contrast, grammar learning preferences lean more toward structured and guided practice, although the participants still value interaction. "Oral practice in class" is the most preferred grammar learning method (46.9%), followed by "Studying grammar rules" (28.1%) and "Doing exercises individually in free time" (25.0%). The lower mean of 2.20 and SD of 0.85 suggest that they tend to prefer fewer, more specific strategies for grammar learning, with less variation in choice compared to vocabulary learning. This highlights the importance of balancing explicit grammar instruction with opportunities for spoken practice, especially in medical English contexts where grammatical precision is key to clear communication.

Finally, the participants are asked 12 questions to recapitulate all that has been done previously for more emphasis. They are required to answer (Yes/NO).

Table 13: The Participants' Yes/No Responses Across Language Use Statements

N°	Questions	Yes	No
1	Do you use medical English in your daily studies or practice?	~75	~95
2	Do you understand medical texts written in English?	~70	~95
3	Do you understand spoken medical English (e.g., in videos or lectures)?	~85	~85
4	Do you understand English medical instructions or case studies easily?	~110	~55
5	Do you read medical journals or articles in English?	~105	~55
6	Do you write medical reports, summaries, or notes in English?	~115	~45
7	Can you give oral presentations or case discussions in English?	~90	~70
8	Do you speak English confidently in class or clinical settings?	~25	~125
9	Are you afraid of making mistakes when speaking medical English?	~90	~70
10	Do you find it easy to understand medical vocabulary in English?	~100	~60
11	Do you have enough opportunities to practice English in your medical studies?	~105	~55
12	Do you experience difficulty translating medical concepts into English?	~65	~95

The data reveals mixed confidence levels among the participants regarding the use and understanding of medical English across various skills. In Q1 (using medical English in daily studies), more respondents answered "No" than "Yes," indicating limited real-world application. A similar pattern appears in Q2, where understanding medical texts in English also received more negative responses, suggesting challenges with academic reading.

In contrast, Q3 and Q4 show improvement, with the number of "Yes" responses roughly equal to or higher than "No," suggesting better comprehension of spoken English and medical instructions. Participants feel relatively confident in receptive skills such as Q5 (reading journals) and Q6 (writing summaries), where over 100 participants responded "Yes." Q7 (giving oral presentations) still shows some struggle, though the majority seem capable. However, Q8 (speaking confidently) stands out as the biggest challenge, only about 25 respondents answered "Yes," and over 125 answered "No," indicating a significant lack of speaking confidence.

Interestingly, Q9 confirms this: a high number of participants report being afraid of making mistakes, showing that language anxiety is a key factor. Q10, Q11, and Q12 reflect moderate to strong confidence in understanding vocabulary (Q10), having practice opportunities (Q11), and translating medical content (Q12), though Q12 still has many "No" responses, indicating difficulty in translating

complex ideas. Overall, participants show stronger abilities in reading, writing, and listening comprehension (Q3–Q6), while they lack confidence in speaking and real-time communication (Q1, Q8, Q9, Q12), which highlights the need for more interactive, speaking-focused activities in medical English instruction.

7.1 Discussion

This study examined the readiness and perspectives of medical educators at Batna 2 University regarding EMI. The findings reveal a generally favorable perception of EMI, with more than three-quarters of educators supporting the transition from French to English. This aligns with previous studies in Algeria (Rahmani, 2021; Bekri Hamerlain, 2024) and internationally (Macaro, 2018; Galloway & Rose, 2021), which highlight that despite initial resistance, educators often recognize the long-term benefits of EMI. However, this study also confirms a persistent gap in readiness, with only half of the participants feeling prepared to teach in English. Self-reported proficiency results further underline significant challenges in speaking, pronunciation, and communication skills, echoing global research that oral fluency is the most difficult skill for EMI faculty to master (Carroll & Daniels, 2024; Shrestha, 2022).

In-service training emerges as a crucial need. While educators valued English for professional and academic purposes, most had not received structured training, and those who had reported a limited scope. This indicates that current professional development programs remain insufficient. Overall, the findings point to a readiness paradox: while attitudes are largely positive, actual preparedness remains limited without systemic institutional support. Future EMI policies in Algeria must therefore emphasize sustainable training programs and tailored support mechanisms for medical educators. This aligns with glocalized analyses showing that EMI policy in Algeria requires balancing global standards with local linguistic realities (Rouaghe et.al, 2025).

7.2 Answers to Research Questions

To synthesize the findings, the following provides direct answers to the four research questions:

RQ1: What are the perspectives of medical educators regarding EMI?

Most participants (76.3%) held favourable attitudes toward EMI, seeing English as essential for teaching, research, and professional development. RQ2: How prepared are medical educators for the transition to EMI? Only 50% felt prepared to teach in English, highlighting gaps in training and language proficiency, particularly in speaking and communication. RQ3: What pedagogical and linguistic challenges do medical educators face? The main challenges included low oral proficiency, lack of EMI-specific training, limited teaching materials, and difficulty handling student questions in English. RQ4: What benefits and challenges are associated with the transition from French to English? Benefits included alignment with global standards, improved student competitiveness, and enhanced academic visibility. Challenges included a lack of resources, language barriers, and resistance from less confident educators.

8. Limitations

This study has several limitations that must be acknowledged. **First,** the data were self-reported through questionnaires, which may introduce bias as participants could over- or under-estimate their proficiency and readiness. **Second,** the study was limited to one institution (Batna 2 University), which restricts the generalizability of the findings across Algerian universities. **Third,** the cross-sectional design captures educators' perspectives at one point in time; longitudinal studies are needed to track changes in readiness as EMI reforms progress. **Fourth**, while a pilot focus group informed the study, the main data collection relied solely on quantitative surveys. Including qualitative interviews could have enriched insights into the nuanced challenges faced by educators. **Finally**, the study focused exclusively on medical educators; future research should also investigate student perspectives and experiences with EMI to provide a fuller picture.

9. Implications

While the benefits of implementing EMI in Algerian higher education are promising, the process is not without its challenges. The following limitations highlight the structural, pedagogical, and institutional gaps that must be addressed to ensure sustainable and effective EMI practices. These factors underscore the reality that successful EMI implementation requires more than policy declarations; it demands carefully designed training, continuous professional support, institutional alignment, and collaborative engagement among educators:

1. Designing Contextualized EMI Training Programs Training must go beyond general English or theoretical methods. It should incorporate medical-specific language, real classroom scenarios, and culturally responsive pedagogy. Programs should be flexible enough to accommodate varying levels of English proficiency and teaching experience.
2. Ongoing Professional Development EMI is not a one-time adjustment; it requires continuous learning. Institutions should offer regular workshops, peer mentoring, and reflective teaching practices to help educators grow confidently in EMI settings.
3. Institutional Support and Policy Alignment Policymakers and university leaders must ensure that the EMI rollout is accompanied by infrastructure support, such as access to quality teaching materials, reduced workloads during the transition period, and administrative clarity. Top-down reforms will only succeed if they are matched by ground-level support.
4. Encouraging Collaborative Communities of Practice Creating spaces where medical educators can share experiences, resources, and challenges fosters mutual support and reduces isolation. This collaborative culture strengthens not only EMI implementation but overall teaching quality.
5. Monitoring and Evaluation Institutions should assess the effectiveness of EMI training and its impact on teaching and student learning. This feedback loop can inform ongoing improvements and build trust among educators who may still be uncertain about the transition.

In summary, if Algeria's goal is to modernize its higher education and expand its global academic presence, the success of EMI lies not just in policies but in the people who bring those policies to life, its educators. Supporting their readiness with respect, training, and resources is not just beneficial; it is essential.

Conclusion

As English continues to solidify its role as the language of global academia and medical research, the shift toward English as a Medium of Instruction (EMI) in Algerian medical faculties marks a significant turning point. This study has explored the readiness and perspectives of medical educators, those at the frontline of this educational transformation. What emerges is a complex yet hopeful picture. While many doctors recognize the benefits of EMI for their students' future careers and international engagement, they also voice concerns about their readiness and preparedness, especially in terms of language proficiency and pedagogical training. The findings suggest that medical educators are not resistant to change, but rather in need of structured, context-sensitive support. Their willingness to adapt is present, but the tools to do so effectively, such as targeted in-service training, clear policy guidelines, and adequate resources, are often lacking. This gap between policy ambition and classroom reality presents a clear challenge, but also a powerful opportunity for institutions to invest meaningfully in teacher development.

In summary, this is not simply a matter of curriculum reform; it is about empowering professionals to teach confidently, communicate clearly, and support their students in a linguistically demanding field. Medical educators want to do right by their students, but they need to feel supported, not pressured, in this transition. Their voices reflect not resistance but responsibility.

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