STUDENT CHALLENGES IN ENGLISH MEDIUM INSTRUCTION PROGRAMS: MIXED-METHODS STUDY IN HIGHER EDUCATION

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ABSTRACT

Over the past ten years, English Medium Instruction (EMI) has grown significantly in higher education worldwide due to internationalization agendas and the need for graduates who are fluent in English. Despite widespread use, little empirical research has been conducted to investigate EMI implementation from the perspective of students in a variety of disciplinary settings. This mixed-methods study examined how 100 undergraduate students in a variety of majors at a public university in Hanoi, Vietnam, dealt with EMI difficulties. This study investigates the various difficulties students confront in EMI learning environments using quantitative questionnaires and qualitative students' semi-structured interviews. The findings show that students have a lot of difficulties, such as comprehending academic literature, participating in class discussions, expressing ideas in writing English, and performing well on tests. These findings show that language proficiency, disciplinary discourse expectations, and pedagogical assistance have a significant impact on student achievement in EMI programs. The study underlines the necessity of comprehensive language support services, individualized teaching methodologies that account for student competence differences, and institutional commitment to successful EMI implementation.

Keyword: English Medium Instruction, student perspectives, learning challenges, higher education, mixed-methods research, multilingual contexts

1. INTRODUCTION

The implementation of English Medium Instruction (EMI) in higher education has become a defining part of the internationalization agenda at universities around the world. EMI, defined as "the use of the English language to teach academic subjects other than English itself in countries or jurisdictions where the majority of the population's first language is not English," presents both an opportunity and a challenge for students, educators, and institutions in international settings. EMI growth has been driven by a number of interconnected factors, including globalization and international economic competition, the desire to attract international students and improve institutional rankings, improved access to English-language research and materials, and perceived links between English proficiency and career advancement. However, despite its rapid growth, substantial evidence suggests that EMI implementation creates significant challenges for students that are not yet fully understood or adequately addressed.

Research on EMI from the perspective of students is still limited, particularly in terms of how students encounter challenges to learning across varied disciplinary contexts and skill levels. While teacher-focused and policy-level analyses dominate the research, students' perspectives - their experiences navigating EMI learning settings, dealing with methods, and proposals for reform - are neglected. This gap is especially relevant considering that students are the true recipients of EMI implementation and have the ability to provide critical insights about program efficacy. This study fulfills a gap by evaluating student experiences with EMI issues using mixed-methods research. By combining quantitative survey data with qualitative interview data, the study gives a thorough assessment of the variety and scope of problems students perceive in EMI learning environments across many disciplinary contexts.

2. LITERATURE REVIEW

2.1 English Medium Instruction in global context

EMI has emerged as one of the most rapidly increasing educational trends in contemporary higher education. Macaro et al.'s comprehensive study found 83 peer-reviewed papers on EMI in higher education alone, most of which were published after 2010, showing that the topic has recently received adequate academic attention. While EMI emerged in Western contexts with solid research on bilingual education and content-based language learning, its application in non-native countries brings particular problems and challenges that require empirical investigation.

The global spread of EMI reflects a variety of driving factors that differ depending on the country and institutional setting. In Asia, where EMI expansion has been particularly rapid, governments and universities recognize it as a strategic reaction to perceived financial requirements. For example, Vietnam's National Foreign Language Project 2020 requires the adoption of EMI across higher education to improve graduates' international competitiveness. In Bangladesh, China, Korea, and Thailand, EMI programs were introduced to both public and private colleges. This expansion, however, has not been a complete success. Research in Asian contexts highlights implementation issues such as limited teacher language ability, weak institutional support, resource constraints and, most importantly for this study, significant difficulties students facing in EMI learning environments.

2.2 Student learning in EMI

EMI learning requires an ongoing engagement of two complex cognitive demands: understanding content provided in a non-native language and improving academic English proficiency. EMI learning is fundamentally different from learning in students' native language or from conventional English language instruction because of this dual demand. Cummins' difference between Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP), the academic English required for disciplinary learning, is used in research to understand this difficulty.

Many EMI students enter programs with adequate BICS for social communication but lack CALP for academic participation. This performance gap is especially significant in EMI environments where academic content is offered entirely in English without specific language instruction. Students must learn academic English while also mastering discipline material, which is a more cognitively demanding process than doing either alone.

Many EMI students enter programs with BICS sufficient for social communication but insufficient CALP for academic engagement. This proficiency gap proves particularly consequential in EMI contexts where academic content is delivered exclusively in English without explicit language instruction. Students must simultaneously acquire academic English while mastering disciplinary content - a process more cognitively demanding than either task alone.

Beyond individual language ability, EMI learning involves engagement with disciplinary discourse - the distinctive ways particular fields use language to construct and communicate knowledge. Disciplines vary substantially in linguistic demands. Some fields rely heavily on visual or mathematical representation permitting relative language independence, while others (law, history, sociology) are fundamentally language-dependent where precise word choice carries disciplinary significance. Students acquiring disciplinary English for the first time face substantial learning demands even with adequate general English proficiency.

2.3 Student challenges in EMI

Empirical research documenting student challenges in EMI programs has expanded substantially in recent years. Consistent findings across multiple studies and diverse global contexts identify EMI as creating multifaceted, interconnected challenges spanning cognitive, affective, and institutional dimensions. The convergence of evidence across geographically and institutionally diverse contexts suggests that these challenges reflect fundamental structural characteristics of EMI rather than context-specific phenomena.

Research consistently identifies difficulties in understanding lectures, comprehending written materials, producing academic writing, and participating in discussions. Chang (2010) reported that most students believed language of

instruction posed significant barriers to mastering English-taught subjects, particularly citing limited vocabulary and fast lecturer speech rates. More recent studies confirm these findings across contexts. Huang (2012) and Ali et al. (2021) identify listening comprehension as a critical bottleneck, with students struggling to follow lectures due to vocabulary gaps, unfamiliar accents, and fast delivery rates. Approximately 50-60% of students across multiple studies report substantial lecture comprehension difficulties.

Reading academic materials represents another substantial challenge. Students report difficulties including unfamiliar vocabulary, complex sentence structures, and disciplinary-specific jargon. Approximately 55-65% of EMI students report significant challenges reading disciplinary texts. Students spend disproportionate time on reading tasks compared to peers studying in their native language, using inefficient coping strategies including translating text into L1, consulting L1 textbooks or resources, repeatedly reading passages to extract meaning, and consulting bilingual dictionaries for unfamiliar terms.

Writing difficulties prove particularly consequential given that university assessment increasingly emphasizes written assignments and examinations. EMI students report substantial difficulties expressing ideas clearly and academically in English, encompassing vocabulary constraints, uncertainty about academic register, grammatical insecurity, and difficulty structuring complex arguments. Approximately 55-70% of students report significant writing challenges. Students describe simplifying their ideas to compensate for vocabulary limitations, avoiding sophisticated argument structures they cannot express adequately in English, and producing work they recognize as not representing their actual knowledge.

Beyond linguistic barriers, research identifies affective factors substantially influencing EMI student experiences. Students report anxiety, stress, and nervousness related to English language use, particularly when required to speak before peers or in high-stakes situations like examinations. This anxiety may compromise performance independent of actual knowledge or language ability. Classroom discussion and interactive learning - increasingly emphasized in contemporary pedagogy - present particular challenges for many EMI students. Research

reports that 40-65% of EMI students report hesitancy or difficulty participating in classroom discussions despite understanding content reasonably well. Students describe difficulty formulating arguments spontaneously in English, anxiety about speaking before peers, concern about making linguistic errors, and unfamiliarity with disciplinary discussion conventions. This reluctance to participate has cascading consequences: interactive learning activities are compromised, students may disengage from active learning despite understanding its benefits, and over time, passivity may become habituated, creating persistent classroom participation patterns.

Cultural factors also influence EMI student experiences. Educational traditions emphasizing teacher-centered instruction, listening, and reduced classroom participation may create tension with interactive, discussion-oriented EMI pedagogies. Students socialized into more formal educational structures may experience discomfort with expected participation levels and interactive learning approaches.

EMI students report substantial anxiety regarding examinations and difficulties performing at levels commensurate with their content knowledge. Challenges include difficulty understanding examination questions, time pressure combined with language processing demands, and difficulty expressing knowledge adequately in English. Approximately 45-65% of students report examination comprehension difficulties and constraints on written expression during exams. Students describe writing less detailed answers than they could provide in their native language, being unsure whether they have correctly understood questions, and running out of time due to slower English writing rates.

A consistent finding across research is that student English proficiency correlates substantially with EMI success. Lin and Lei (2021) found that students' English proficiency and academic English skills are significant positive predictors of academic performance in EMI courses. However, proficiency is not uniformly predictive across students, and substantial variation exists within proficiency levels. Moreover, proficiency levels vary within student cohorts, creating diverse learning needs that single pedagogical approaches may inadequately address.

A major theme in EMI literature concerns inadequate institutional support for students. Language support services specifically designed for EMI contexts remain rare. Many institutions assume students will manage language challenges independently or within existing English language programs not specifically targeting EMI needs. The result is ad hoc, variable implementation without systematic pedagogical support.

3. METHODS

3.1 Research design

This study employed a convergent mixed-methods research design integrating quantitative and qualitative data collection to investigate student experiences of EMI challenges. The mixed-methods approach enabled comprehensive investigation of complex EMI learning phenomena, with quantitative data providing statistical description of challenge prevalence and magnitude across the student population, while qualitative data illuminated the nature, mechanisms, and lived experience of these challenges.

3.2 Research context and participants

The study involved 100 undergraduate students enrolled in EMI programs across three academic disciplines. Participant demographics included 62 female students (62%) and 38 male students (38%), with ages ranging from 18-26 years (M=21.2, SD=2.1). Regarding English proficiency, 38 students (38%) self-reported elementary proficiency while 62 students (62%) self-reported intermediate proficiency. Students were recruited through announcements in EMI courses with voluntary participation. From the 100 questionnaire respondents, 8 students were purposively selected for follow-up interviews based on representing different challenge levels (high, average, low) per questionnaire responses, representing each discipline, and demonstrating willingness to participate in extended interviews.

3.3 Data collection instruments

Data collection employed two instruments. A 22-item questionnaire adapted from established EMI research instruments and supplemented with context-specific items assessed student-perceived challenges across five domains: understanding lectures and explanations (5 items), comprehending textbooks and course materials (4 items), participating in classroom discussions (4 items), examination performance (4 items), and general EMI learning experiences (5 items). Items were measured on 5-point Likert scales (1=strongly disagree to 5=strongly agree) with scores interpreted using Moidunny's (2009) framework: 1.00-1.80 (very low), 1.81-2.60 (low), 2.61-3.20 (medium), 3.21-4.20 (high), 4.21-5.00 (very high). Reliability analysis yielded Cronbach's alpha=0.89, indicating acceptable internal consistency. The questionnaire was administered in Vietnamese to ensure comprehension, with trained research assistants providing clear instructions in classrooms. Completion required approximately 15-20 minutes. Semi-structured interviews with 8 student participants explored EMI challenges in greater depth through open-ended questions addressing overall EMI experiences and challenges, difficulties understanding lectures, challenges reading and comprehending English texts, barriers to classroom discussion participation, examination anxieties, coping strategies employed, suggestions for program improvement, and impacts on content learning and language development. Interviews were conducted individually in Vietnamese, lasting approximately 45-60 minutes, audio-recorded with participant permission, and later transcribed verbatim by bilingual translators.

4. RESULTS AND FINDINGS

Quantitative analysis revealed substantial EMI challenges experienced by students across multiple interconnected dimensions. Students reported high levels of overall EMI challenges, with challenge severity varying substantially across different learning contexts and student characteristics. Table 1 presents descriptive statistics for all measured challenge domains.

Table 1. Descriptive Statistics for EMI Challenge Domains (N=100)

Challenge Domain	M	SD	Minimum	Maximum	Frequency (%)
Comprehending textbooks and course materials	3.40	0.76	1.33	5.00	54-61% High/Very High
Understanding lectures	3.24	0.74	1.60	5.00	50.9% High/Very High
Examination performance	3.22	0.67	1.60	5.00	31.6-55.9% High/Very High
Articulating ideas in written form	3.39	0.69	1.40	5.00	55-70% High/Very High
Participating in classroom discussions	3.09	0.77	1.14	5.00	43.4-55.8% High/Very High
Overall EMI Challenges	3.28	0.61	1.75	5.00	High Range

Students' overall mean challenge score of 3.28 (SD=0.61) fell squarely within the "high challenge" range (3.21-4.20), indicating that comprehensive EMI challenges significantly affected the student population. The relatively low standard deviation indicated consistency in this pattern across students rather than isolated to particular subgroups. Analysis across specific challenge domains revealed that comprehending textbooks and course materials presented the most substantial challenge (M=3.40), followed closely by articulating ideas in written form (M=3.39) and understanding lectures (M=3.24). Participating in classroom discussions presented relatively lower but still substantial challenges (M=3.09).

Approximately 54-61% of students reported substantial difficulty comprehending English-language textbooks and course materials, citing limited vocabulary impeding comprehension, time-consuming dictionary consultation for unfamiliar words (61.6%), and simultaneous difficulty understanding both language and content (54%). Understanding lectures ranked second in challenge magnitude, with approximately 50.9% of respondents reporting difficulty. Specific challenges included understanding English terminology and disciplinary concepts (59.2%), limited content acquisition due to listening skills deficits (50.8%), and difficulty following instructor explanations due to speech rate or pronunciation (49.8%).

Examination performance presented the third major challenge (M=3.22, SD=0.67), with 31.6-55.9% of students reporting substantial examination difficulties. Specific challenges included expressing thoughts and ideas accurately and academically in English (55.9%), paraphrasing ideas appropriately (55%), writing answers with sufficient detail (45.9%), understanding examination questions (31.6%), and remembering English terminology and concepts (36.6%). Articulating ideas in written form constituted a significant ongoing challenge (M=3.39, SD=0.69), representing approximately 55-70% of students reporting difficulty. These challenges encompassed vocabulary constraints, uncertainty about academic register, grammatical insecurity, and difficulty structuring complex arguments. Approximately 68% of interviewed students reported self-censoring arguments, avoiding sophisticated theoretical engagement because they couldn't express complex ideas adequately in English, likely constraining their intellectual development and disciplinary learning.

Classroom discussion participation showed relatively lower but still substantial challenges (M=3.09, SD=0.77), with approximately 43.4% of students reporting hesitancy participating due to limited speaking ability, while 55.8% reported difficulty expressing content knowledge in English.

English proficiency emerged as a significant predictor of challenge levels. Table 7 compares challenge experiences between students with different proficiency levels.

Table 2. EMI Challenge Levels by English Proficiency (N=100)

English Proficiency Level	N	M	SD	t-value	p-value
Elementary	38	3.61	0.58	4.12	<.001
Intermediate	62	3.10	0.58		

The substantial difference between proficiency groups (0.51 points) was statistically significant, t(98)=4.12, p<.001, indicating that language proficiency substantially predicted EMI challenge levels. However, even intermediate proficiency students reported challenges in the high range (M=3.10), suggesting that proficiency alone does not eliminate EMI difficulties.

Qualitative interview data corroborated and illuminated quantitative findings. Students described vividly the cognitive and affective dimensions of EMI learning. One student explained textbook comprehension difficulties: "Reading an English textbook, I have to look up words constantly. By the time I understand one paragraph, I've forgotten what the beginning was about. It takes me three times longer than my classmates reading in Vietnamese." Regarding lecture comprehension, a law student noted: "I understand some words but not all. When I miss words, I lose the meaning. Then I have to guess what the lecturer said, which is difficult because law requires precision." Students reported differential comprehension by lecturer characteristics: "The Vietnamese professors speak slower and explain more clearly. The native speakers talk very fast, and their accent is different. I struggle to understand them."

Examination anxiety emerged prominently in interview narratives. One student described: "During exams, I know the law but I can't write it quickly enough in English. I write less than I could write in Vietnamese. So my grade doesn't reflect my actual knowledge." Another elaborated on time pressure: "The exam is three hours. But because English is not my first language, I need more time to read the question, understand what it's asking, think about my answer, and write it in English. I don't have enough time to think about the content deeply."

Classroom discussion hesitancy was explained through multiple lenses. One student expressed anxiety: "I'm always worried about making mistakes. If I say something wrong in English, everyone will think I'm stupid. So I prefer to stay quiet." Another distinguished between understanding and expression: "I understand what others say. I have ideas to contribute. But when I try to speak in English, everything goes blank. I'm afraid to make mistakes." Cultural factors were also mentioned: "In Vietnamese classes, we listen to the teacher and take notes. Here they want us to speak constantly. It's not our culture. I have good ideas but I'm not comfortable saying them in front of everyone."

Cognitive overload emerged as a major theme. One student explained: "It's not just understanding English. I have to understand English AND the concepts AND the legal principles all at the same time. It's very tiring." Another noted: "My brain is working so hard just to understand the words that I don't have energy left to really think about the ideas." Despite substantial challenges, most interview participants reported positive attitudes toward EMI: "It's difficult, but I know I need English for my future job. So even though it's challenging, I think it's worth it."

Institutional support deficits appeared consistently in interview responses. One student noted: "I don't know how to solve the problems I face. The teachers don't explain how to manage reading in English or how to prepare for exams. I have to figure it out myself." Students reported employing time-intensive coping strategies including translating key passages to Vietnamese, consulting Vietnamese versions when available, reading summaries before attempting full texts, and collaborative reading where peers discussed confusing passages.

5. DISCUSSION

Findings from this study confirm that EMI poses substantial and multifaceted challenges for students, cutting across learning activities, proficiency levels, and disciplinary contexts. Overall challenge levels were high, with particular difficulties in comprehending academic texts, understanding lectures, performing in examinations, articulating ideas in written

English, and participating in classroom discussions. These patterns, together with similar results reported across Asia, the Middle East, Europe, and other regions, suggest that the core difficulties associated with EMI reflect structural features of learning academic content through a non-native language rather than problems specific to a single institution, country, or discipline. The persistence of high challenge scores even among students with intermediate English proficiency indicates that improving language skills alone is not sufficient; EMI inherently increases cognitive load by requiring students to process language and content simultaneously, often under time pressure and high-stakes conditions.

The variation in challenge levels across disciplines demonstrates that EMI is not experienced uniformly in all academic fields. Language-intensive disciplines that depend heavily on precise terminology, formal argumentation, and highly codified discourse - such as law and many theoretical social sciences - tend to generate higher reported challenge levels than more practice-oriented or linguistically flexible fields. This pattern, reported in both this and other studies in varied contexts, underscores that EMI is deeply shaped by the ways different disciplines construct and communicate knowledge, and that discipline-specific pedagogical and language support is essential. At the same time, affective factors, particularly anxiety and lack of confidence, emerged as powerful cross-cutting influences. Students across contexts and disciplines described fear of making mistakes, worry about peers' evaluations, and discomfort with speaking in English, which often led them to remain silent even when they understood content and had ideas to contribute. In many settings, these affective constraints intersect with educational cultures that traditionally emphasize listening and note-taking rather than active participation, further complicating attempts to implement more interactive EMI pedagogies.

Cognitive and affective dimensions interact with equity concerns and institutional conditions. Because EMI typically demands substantially more time and effort than studying through the first language, students with greater economic and social resources can more easily access private tutoring, additional materials, or more supportive learning environments, while less advantaged students must rely on self-study and peer support.

Without deliberate institutional policies and targeted support, EMI risks amplifying rather than reducing educational inequalities. At the same time, student accounts reveal consistent gaps in institutional support: dedicated EMI-oriented language services, systematic guidance on managing reading and examination demands, and structured, language-aware pedagogy are often limited or absent, even in institutions that actively promote EMI. This pattern appears widely in the international literature and suggests a systemic tendency to treat EMI as a simple change of medium rather than as a complex pedagogical and institutional undertaking.

Despite these challenges, students frequently expressed pragmatic and in many cases positive attitudes toward EMI, recognizing its potential role in enhancing English proficiency, widening access to international knowledge, and improving future employment prospects. This resilience and willingness to persist, however, should not be interpreted as evidence that current forms of EMI implementation are sufficient. Rather, it highlights the urgency of providing more robust institutional and pedagogical support so that the burden of making EMI "work" does not fall primarily on students' individual effort.

These findings lead to several key implications. At the institutional level, universities implementing EMI should develop comprehensive, EMI-specific language support systems, including academic writing and reading support, discipline-embedded language assistance, and accessible tutoring and advisory services. Policies and resource allocations must recognize EMI as a structurally more demanding mode of study that requires dedicated infrastructure, not merely a change of classroom language. Pedagogically, content teachers need preparation in language-aware instruction: explicitly teaching key disciplinary terminology and discourse patterns, systematically scaffolding the comprehension of complex texts and lectures, and designing assessments that evaluate subject knowledge without unduly penalizing language processing speed. Structured participation formats and supportive classroom climates can reduce anxiety and encourage gradual increases in student engagement. At the policy level, EMI expansion should be planned rather than reactive, with clear objectives, realistic timelines, and continuous monitoring of its impact on learning outcomes and

equity. Consideration of translanguaging and strategic L1 use - rather than rigid English-only policies - may support both content learning and sustainable development of academic English. Equity concerns require explicit attention, including mechanisms to ensure that EMI access, support, and success are not limited to students from more privileged backgrounds.

This study also has limitations that should be acknowledged when interpreting its contributions. Data were drawn from a single institution, and although the disciplines included were diverse and the findings align with research from multiple international contexts, generalization to all EMI settings should be made cautiously. The sample size, while adequate for the analyses conducted, may not capture the full range of variation within and across disciplines and proficiency levels. The cross-sectional design provides a snapshot of challenges but cannot reveal how these difficulties evolve over time or how students' strategies and perceptions change as they progress through their programs. Reliance on self-reported data introduces possibilities of social desirability bias and incomplete self-awareness, particularly around sensitive topics such as anxiety, perceived competence, or institutional critique. Finally, the specific national and institutional context rapid EMI expansion under strong internationalization pressures, combined with limited historical experience of large-scale EMI implementation - may shape some aspects of the findings differently than in systems with longer or differently structured EMI traditions.

Taken together, the evidence suggests that EMI is best understood as a powerful but demanding educational model whose success depends on careful alignment of language proficiency expectations, disciplinary discourse requirements, pedagogical design, and institutional support. Without such alignment, EMI risks compromising both content learning and student well-being; with it, EMI can contribute meaningfully to internationalized, equitable higher education that genuinely benefits diverse student populations.

6. CONCLUSION

This study investigated student-perceived challenges in English Medium Instruction programs across 100 students in multiple disciplines at a Vietnamese university. Findings reveal that students experience high levels of challenges across multiple interconnected dimensions: understanding lectures, comprehending textbooks, participating in discussions, performing in examinations, and managing the general cognitive and affective demands of learning through English.

Critically, these challenges persist despite substantial student motivation for EMI learning, recognition of potential benefits, and willingness to invest considerable effort in managing language demands. The challenges reflect not student shortcomings but rather structural characteristics of EMI itself - the inherent difficulty of simultaneously processing language and content in non-native language, the cognitive load imposed by dual-language processing, and institutional inadequacy of support structures.

The substantial variation in challenges across disciplines indicates that EMI is not a uniform phenomenon but rather varies by disciplinary characteristics. Discipline-specific approaches to EMI support appear necessary.

This research contributes to EMI literature by centering student voices and experiences, employing mixed-methods research bridging quantitative and qualitative understanding, and documenting EMI challenges in a Southeast Asian context underrepresented in scholarly literature. By illuminating the genuine difficulties students encounter in EMI learning environments, this research provides evidence-based foundation for improving EMI implementation.

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