

PERCEIVED LINGUISTIC CHALLENGES IN ENGLISH-MEDIUM INSTRUCTION: EVIDENCE FROM UNDERGRADUATE STUDENTS IN VIETNAM

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Abstract

The purpose of this study was to examine the language-related difficulties encountered by undergraduate students at a Vietnamese university studying in an English-medium instruction (EMI) environment. Drawing on data from 482 second-, third-, and fourth-year students across three faculties, the study employed multiple analytical methods to investigate the specific language challenges students experienced, the variations by gender, academic year, and discipline on these challenges, the interrelationships among different types of language difficulty, and the extent to which they predicted English proficiency test scores. The findings showed that students reported difficulties across all four language skills, with writing and speaking perceived as more challenging than listening and reading. The four perceived-ease dimensions were moderately to strongly intercorrelated. Of the four dimensions, only perceived ease in listening was significantly associated with the English proficiency score ($\beta = .228, p = .016$). These findings highlight the need for sustained language support from the first year and throughout students' subsequent EMI studies. Ongoing collaboration between language and content teachers is also essential to address students' linguistic needs more effectively in EMI contexts.

Keywords: English-medium instruction (EMI); Higher education; Linguistic challenges; Undergraduate students; Vietnam.

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1 Introduction

Internationalisation of higher education has become a strategic priority for universities around the globe, leading to an unprecedented growth in the number of academic subjects being delivered in English (Macaro et al., 2018). This growing shift towards English-Medium Instruction (EMI) reflects a broader "Englishisation" of higher education institutions (HEIs) – a global phenomenon in which English becomes dominant in academic domains across non-native English-speaking

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(NNES) countries (Galloway & Sahan, 2021). In this context, English serves not only as a medium of communication but also as a key instrument for knowledge dissemination across disciplinary settings.

Vietnam is no exception to this global trend (Le, 2012). In the early 2000s, the Ministry of Education and Training (MOET) actively encouraged universities to adopt, and then gradually expand the use of English as the medium of instruction across various specialised disciplines, as part of the National Foreign Language Project, commonly known as NFLP (Government of Vietnam, 2008). This direction has been affirmed in major policies, particularly in the Country's Politburo direction on promoting international integration in education and strengthening human resource quality to meet the demands of national development in the new era. Most notably, the Government's decision "Making English a Second Language in Schools during 2025–2035, with a vision to 2045" – a long-term national project–signals a decisive shift towards EMI (Government of Vietnam, 2025).

Against this policy backdrop, EMI has gathered momentum in Vietnam's higher education, evidenced by a steadily increasing number of universities offering EMI programmes over the past few decades. The expansion of EMI at the tertiary level signifies a pedagogical shift – from learning English as a foreign language to using English as a means to acquire disciplinary knowledge. However, the implementation of EMI is not without challenges. Given the top-down nature of EMI policy, there appears to be a substantial gap between institutional policy intentions and classroom realities. As Bradford (2016, p. 340) points out, effective EMI requires more than "simply switching the vehicle of communication and continuing as usual". In the context of Vietnam, many students enter EMI programmes with limited prior exposure to academic English, making these challenges especially acute (Galloway & Ruegg, 2020).

Nonetheless, existing studies on EMI in Vietnam have largely focused on policy, institutional implementation, and the perspectives of content teachers and students (Galloway & Ruegg, 2020; Le, 2012; Tran & Nguyen, 2018; Vu & Burns, 2014), while empirical evidence on students' specific language-related challenges remains relatively limited and fragmented. This study addresses this gap by identifying the principal linguistic barriers that constrain students' disciplinary learning through English in Vietnamese HEIs. Its findings are expected to contribute to the growing body of EMI research in NNES contexts and to inform evidence-based approaches that better support students' academic language development alongside content learning.

2 Literature Review

2.1 English-medium instruction (EMI)

The origin of EMI can be traced back to the development of content and language integrated learning in Europe, content-based teaching, and bilingual teaching

methods in Anglophone countries (Vu & Burns, 2014). Nevertheless, it should be acknowledged that EMI extends beyond a methodology and is closely linked to policy-making and language planning. This study adopts Macaro's (2018) definition, which defines EMI as the use of English to teach disciplinary content in countries where English is not the first language of the majority of the population. This definition is central to distinguishing EMI from other language-teaching models, significantly emphasising that the primary goal of EMI programmes is content learning while English serves as a means of achieving that objective.

Despite official definitions of EMI not directly linking it to language acquisition, there is a widely held “two birds with one stone” belief, particularly in NNES contexts (Dearden, 2014; Kamasak et al., 2021; Rose et al., 2020). In other words, students are expected to simultaneously acquire both subject-matter knowledge and English proficiency, thereby enhancing the nation's workforce and building capacity in response to the demands of global integration. Yet, there are critical distinctions between these perceived benefits and empirical outcomes. While stakeholders are highly optimistic, research into the effectiveness of EMI in maintaining content quality and improving English proficiency has yielded mixed results (Macaro et al., 2018). For instance, Galloway et al. (2017) found that Japanese and Chinese students perceived benefits for both content comprehension and English proficiency development. However, Hamid et al. (2013), examining EMI policies across ten Asian countries, concluded that EMI implementation is “fraught with difficulties and challenges” (p. 11).

From an instructional perspective, proficiency in English alone may not be sufficient to ensure effective English-medium teaching. As students move from language-focused instruction to using English as a medium for disciplinary learning, additional factors come into play, including teachers' linguistic competence and professional experience, reflective practice, collegial interaction, and institutional support (Asanov, 2025; Chroqui & Ouahidi, 2025). Understanding the linguistic challenges faced by undergraduate students in EMI contexts is therefore crucial to ensuring effective content learning.

2.2 The implementation of EMI in Vietnam

Rooted in the NFLP2020 and further reinforced by the Politburo's Conclusion No. 91-KL/TW (2024) and Decision No. 2371/QĐ-TTg, EMI has emerged as a rapidly expanding phenomenon in Vietnamese HEIs, positioned by the Government and universities as a strategic solution to internationalising higher education and modernising the national economy (Galloway & Sahan, 2021; Le, 2016).

Tran and Nguyen (2018) broadly classify EMI programmes in Vietnamese HEIs into three types: Advanced Programmes, which adapt curricula from highly ranked overseas universities; Joint Programmes, which deliver transnational education through institutional collaboration; and High-Quality Programmes, which are locally managed but incorporate international curricula, materials, and assessment practices. These models differ primarily in the extent of international

collaboration and local institutional control.

As of 2018, 21 HEIs in Vietnam had introduced EMI programmes, collectively offering 55 academic programmes (Tran & Nguyen, 2018). EMI is widely regarded as a strategic initiative to support institutional internationalisation, enhance teaching and learning quality, and improve university rankings. Existing literature also associates EMI implementation in Vietnam with improved English competence and content knowledge, broader employment opportunities, stronger international partnerships, and greater capacity to attract international students (Hoang et al., 2023; Le, 2012; Vu & Burns, 2014).

However, research indicates that EMI implementation in Vietnam is far from satisfactory. The execution of EMI in Vietnamese universities is influenced by various factors, including insufficient preparation for both lecturers and students, reliance on monologic, teacher-centred instruction and a chronic scarcity of discipline-specific resources (Galloway & Sahan, 2021; Vu & Burns, 2014; Tran & Nguyen, 2018). These obstacles present a significant disconnect between national internationalisation goals and the practical realities. To facilitate the effective implementation of EMI policies, HEIs are encouraged to adopt a flexible approach that addresses students' language competence and disciplinary requirements, in addition to comprehensive preparation for policy implementation (Byun et al., 2011). Given the resource-constrained context in Vietnam, thorough preparation and strategic deployment of EMI are essential to ensure students can gain linguistic benefits from the initiative.

2.3 Linguistic challenges faced by EMI students

In a review of EMI challenges in higher education, Bradford (2016) presents a typology of challenges in four major categories, namely language-related challenges, institutional/organisational challenges, nationality/culture-related challenges, and material-related challenges. A review of the literature highlights the central role of English proficiency in ensuring the success of EMI programmes because limited English proficiency can restrict content learning and students' ability to fully engage with academic discourse (Chroqui & Ouahidi, 2025; Galloway & Sahan, 2021; Macaro et al., 2018; Vu & Burns, 2014). In particular, these studies reveal that students encounter difficulties when trying to comprehend, communicate, and excel in academic subjects taught in English, especially in contexts where English is not the first language. Their limited English proficiency is highlighted in a growing body of literature, evident across the four macro skills of listening, speaking, reading and writing (Cho, 2012; Kamasak et al., 2021; Lei & Hu, 2014).

In receptive skills, EMI students struggle with many linguistic challenges. For example, in listening, they find it hard to understand lecturers' and classmates' accents, fast delivery rates, and unclear pronunciation (Cho, 2012; Kamasak et al., 2021). As for reading, EMI students face difficulties with the large volume and complexity of academic English vocabulary, and with the ability to regulate comprehension through planning, monitoring, and evaluating texts (Ciprianová &

Čujdíkova, 2025; Galloway & Sahan, 2021; Rose et al., 2020). These difficulties can slow down information processing, impede subject-content comprehension, and hinder their ability to prepare for class or engage in independent study (Lei & Hu, 2014). Productive skills also present related challenges across various contexts due to insufficient command of academic grammar, organisation, argumentation, limited fluency, lack of confidence in academic register, and fear of making mistakes (Chapple, 2015; Kamasak et al., 2021; Rose et al., 2020). These difficulties can weaken performance in written assignments and inhibit participation in classroom discussion, especially where students lack confidence or opportunities for structured interaction.

The above-mentioned linguistic difficulties are compounded in classes with diverse language abilities, where higher-level students tend to dominate discussions while weaker ones remain inactive, leading to uneven participation and reduced learning opportunities for the latter (Hoang et al., 2023; Vu & Burns, 2014). As a result, students with limited English proficiency can face heavier workloads and greater anxiety, which may lead to losses in both content mastery and language enhancement (Chroqui & Ouahidi, 2025). In other words, students risk failing to achieve either the intended content-learning outcomes or the anticipated linguistic benefits of EMI.

2.4 Theoretical frameworks

This study utilised the four-skill academic language framework with Cummins' (1979) distinction between Basic Interpersonal Communicative Skills (BICS) and Cognitive Academic Language Proficiency (CALP). The four-skill framework identified the students' perceived linguistic challenges, whereas the BICS–CALP distinction provided an explanatory lens for understanding why general English (GE) proficiency might not be sufficient for successful participation in English-Medium Instruction.

The four-skill framework, adapted from Evans and Morrison (2011), categorises linguistic challenges into four language skills. This framework directly informs the measurement model that we used in the present study, in which the four language skills are treated as related but distinct dimensions of EMI-related difficulty. Previous studies have suggested that productive skills, particularly speaking and writing, are frequently perceived as more demanding than receptive skills in EMI settings (Kamasak et al., 2021). However, we did not assume that productive and receptive skills formed completely separate categories; rather, we explored how difficulties across the four skills were interrelated.

Cummins' (1979) distinction between BICS and CALP was used to explore the relationship between students' EMI-related linguistic challenges and their general English proficiency test. In an EMI programme, BICS and CALP are not equated with particular language skills. Listening, speaking, reading, and writing may all require CALP when they are used for cognitively demanding academic purposes. From a BICS–CALP perspective, a significant but limited relationship

would suggest that general English achievement captures only part of the language competence required for the students' EMI participation in the later years. On the other hand, differences across academic years and disciplines may reflect variation in the cognitive, linguistic, and disciplinary demands placed on students. In short, the framework not only guided the current study in exploring the structure of four-skill challenges and their association with general English achievement, but also their variation across stages and fields of study.

This study aims to answer the following two research questions:

1. Is there a correlation between students' linguistic challenges and their English proficiency test score?
2. What is the variation in gender, study year, and discipline on students' linguistic challenges?

To answer the first question, we used a CB-SEM model in which four macro linguistic challenges were independent variables, while the students' English proficiency test score was the dependent variable. The test was taken regularly at the end of each academic year. As for the second question, we conducted an independent-samples *t*-test and a one-way analysis of variance (ANOVA).

The present study extends previous research in two ways. First, it examined the participants' challenges in four macro skills as an interrelated system, rather than as isolated difficulties. In addition, it related students' perceived challenges to the results of a general English proficiency test, rather than relying solely on self-reported perceptions. This was examined using a CB-SEM model in which linguistic challenges were independent variables while the students' English proficiency test score was the dependent variable. Second, it explored whether the pattern of challenges varied simultaneously across gender, academic year, and disciplinary field in a multi-disciplinary Vietnamese EMI setting. Independent samples *t*-test and one-way analysis of variance (ANOVA) techniques were used for this purpose.

3 Research Methodology

3.1 Data collection instrument

A questionnaire consisting of 45 items was used to collect data. Four items were about the students' demographic information (field of study, year of study, gender, and one item on English proficiency test score). Responses were recorded on a seven-point scale ranging from 1 (*very difficult*) to 7 (*very easy*). The original scoring direction was retained: higher scores indicate greater perceived ease and therefore less difficulty, whereas lower scores indicate greater perceived difficulty. The questionnaire was adapted from Evans and Morrison (2011) and has been used by other researchers in different EMI contexts, e.g., Japan and China (Aizawa et al., 2023; Rose et al., 2020). The four deleted items were: "understanding the organisation of a text" (writing), "speaking accurately" (speaking), "speaking from notes" (speaking), and "following a discussion" (listening).

3.2 Setting

Data were collected from a Vietnamese university offering both language training and EMI courses in fields such as Business Management, Information Technology, and International Studies. Admission required students to submit scores from three subjects among the four subjects of the 2024 high-school-exit examination: Mathematics, English and Vietnamese Literature or Physics. They could then choose to enrol in a language-major or EMI programme, aiming to obtain a bachelor's degree after four years. EMI students spent their first year studying English exclusively to prepare for the next phase (second year and beyond) in which they completed their chosen majors in English.

3.3 Participants

The present study aims to investigate learners' linguistic challenges in the EMI context. Therefore, a purposive sampling technique was employed in this study. The participants were 482 undergraduate students enrolled in four-year EMI programmes at a public university in Vietnam, drawn from three faculties: Business Management, Information Technology, and International Studies.

All participants had completed an intensive English foundation year prior to entering their disciplinary studies. During their first year, they focused exclusively on developing English proficiency through intensive practice of the four macro skills, listening, speaking, reading and writing, as well as acquiring discipline-specific vocabulary relevant to their fields of study. When finishing each academic year, the students took a final test of the four macro skills as well. In this study, the SEM analysis used students' English proficiency scores from the end-of-year examination for the 2024–2025 academic year, administered approximately two months before the survey.

Specifically, at the time of collecting data, participants were in their second, third, or fourth year of study, with a relatively balanced gender distribution (55.4% female and 44.6% male). Among the 482 participants, 139 (28.8%) were in the second year of study, 181 (37.6%) were in the third year, and 162 (33.6%) were in their fourth year at university. Regarding English proficiency, the majority of them achieved B-level and above in the university's English test score classification assessment. A detailed summary of participant information is presented in Table 1.

Table 1. Demographic characteristics of the participants (n = 482)

Category	Subcategory	Frequency	Percentage (%)
Gender	Female	267	55.4
	Male	215	44.6
Field of study	FMT	73	15.1
	FIS	111	23.0
	FIT	298	61.8
Year of study	Second	139	28.8

English test score classification	Third	181	37.6
	Fourth	162	33.6
	F (0 – 3.9)	0	0
	D (4.0 – 4.9)	1	0.2
	D+ (5.0 – 5.4)	5	1.0
	C (5.5 – 5.9)	8	1.7
	C+ (6.0 – 6.9)	101	21
	B (7.0 – 7.9)	256	53.1
	B+ (8.0 – 8.4)	91	18.9
	A (8.5 – 8.9)	16	3.3
	A+ (9.0 – 10)	4	0.8

3.4 Data collection and analytical procedures

The questionnaire was piloted on 30 students from one class, who were asked not to take part in the official survey. The reliability of the pilot survey was .85. Following the pilot, the questionnaire was administered online, with the link distributed to participants via their institutional e-mail addresses. One week after the first email, reminders were sent to increase the response rate. After two weeks, nearly 500 students completed the questionnaire, and the link was closed.

Before conducting data analysis, we visualised the dataset using a simple scatter dot diagram to identify whether there were any outliers. The final sample consisted of 482 valid responses. The sample size was considered adequate for CFA, and a 10:1 participant-to-item ratio was adopted as the minimum requirement. The instrument has 41 statements on language challenges, and when considering 10:1 ratio, the required minimum sample size is 410. Hence, the sample satisfied the requirements of CFA. In addition, we checked to make sure that the dataset met other requirements (normal distribution, skewness, etc.). Table 2 presents the normal distribution of the study.

Table 2. Univariate skewness and kurtosis(n=482)

Factor	Skewness	Kurtosis
Writing	0.358	0.101
Reading	-0.019	-0.357
Speaking	-0.055	-0.221
Listening	-0.184	-0.359

Regarding normal distribution, Sposito et al. (1983) proposed the range ± 2.2 for a normal distribution free of skewness and kurtosis. The results displayed in Table 2 show that all skewness values fall within the suggested range and are close to zero. Kurtosis values also fell within the suggested range; hence, it can be stated that the dataset was free of extreme skewness and kurtosis, meaning that the use of SEM-AMOS is suitable for the dataset. Next, we tested if there were any multicollinearity problems with the dataset. The results are presented in Table 3.

Table 3. Multicollinearity and correlation tests

Factor	Tolerance	VIF	Pearson correlation			
			Writing	Reading	Speaking	Listening
Writing	.447	2.236	1	.675	.673	.643
Reading	.345	2.897		1	.672	.767
Speaking	.393	2.547			1	.722
Listening	.331	3.023				1

We examined multicollinearity of the dataset, using the suggestions of Pallant (2020). Data in Table 3 show that VIF values are between 2.236 and 3.023, below the threshold of 10. Tolerances were between .331 and .447, above the threshold of .10, meaning that the dataset is free of multicollinearity. All pairwise correlations among the factors were statistically significant at the 0.01 level, and all correlations were moderate, below the threshold of 0.90. These results further confirmed that the dataset was usable for SEM analysis.

4 Findings

To answer the first question on the correlation between the students' perceived linguistic challenges in English-medium instruction classrooms and their English proficiency test scores, the covariance-based structural equation modelling (CB-SEM) analysis was used. The next sections report on the measurement model assessment, followed by the structural model assessment, which shows the direction, strength, and statistical significance of the relationship between these two variables.

4.1 Measurement model assessment

Before testing the structural relationships, we conducted a confirmatory factor analysis using AMOS (version 24) to evaluate the adequacy of the measurement model (Hair et al., 2019). The model included the key latent constructs of linguistic challenges (Evans & Morrison, 2011), which were measured by their respective observed indicators.

Items with low standardised factor loadings or problematic residuals were removed, provided that such modifications were justified according to the study's model. More specifically, through examining the standardised regression weights in the CB-SEM model, eight items were removed from the writing construct (Items 1, 3, 5, 6, 9, 12, 13, and 15), four from the listening construct (Items 2, 3, 7, and 8), three from the reading construct (Items 5, 7, and 8), and three from the speaking construct (Items 4, 5, and 6) because their standardised factor loadings were below .70, together with other diagnostic and substantive considerations.

The initial examination of the measurement model showed a poor fit, with a χ^2/df value of 4.144, CFI and TLI lower than .90. Hence, we conducted some modifications to improve the fit level. More specifically, the residuals of Writing Items 1 and 2; Listening Items 6 and 9 and Items 4 and 5; Reading Items 1 and 2; and Speaking Items 1 and 2 were allowed to correlate. These modifications were

supported by relatively high modification indices and substantive similarities in the wording or content of the paired items. For example, Listening Items 6 and 9 both concerned understanding the accents of lecturers and classmates. Similarly, Reading Items 1 and 2 addressed the closely related abilities to understand and infer the meanings of particular words or vocabulary. Table 4 presents the original and modified measurement model.

Table 4: Model fit for original and modified measurement models

	CMIN/ DF	CFI	TLI	RMSEA
Original	4.144	.893	.886	.081
Modified	2.910	.959	.952	.063

Following commonly accepted SEM guidelines (e.g., Hair et al., 2019), acceptable fit is indicated χ^2/df values below 3.00, CFI and TLI values above .90, and RMSEA below .08. In short, the measurement model was considered adequate for further analysis. Figure 1 presents the study’s measurement model assessment after the modification.

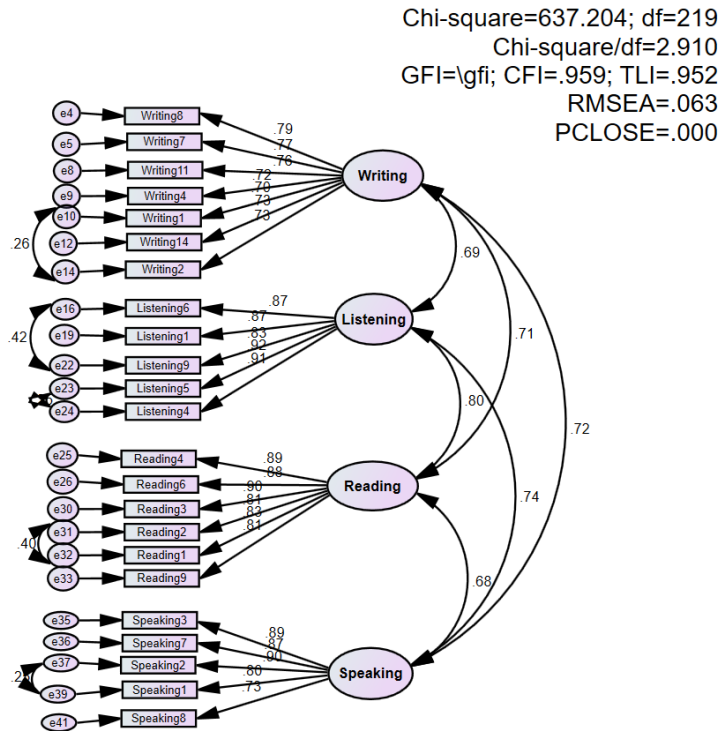


Figure 1. Reliability, convergent and discriminant validity

The reliability and convergent validity of the constructs were assessed using standardised factor loadings, composite reliability, and average variance extracted. Data in Table 5 show that CR values for all four constructs were above the threshold

of .70. Similarly, all the AVE values were higher than .50, suggesting good convergent validity.

Table 5. Reliability, convergent and discriminant validity

Factor	CR, AVE, MSV			Fornell & Larcker			
	CR	AVE	MSV	Writing	Listening	Reading	Speaking
Writing	0.896	0.552	0.521	0.743			
Listening	0.945	0.774	0.640	0.692	0.880		
Reading	0.943	0.734	0.640	0.712	0.800	0.857	
Speaking	0.923	0.708	0.548	0.722	0.740	0.680	0.841

We examined discriminant validity by using the Fornell–Larcker criterion. According to the Fornell–Larcker (1981) criterion, the square root of AVE for each construct should be greater than its correlations with other constructs. Data in Table 5 shows that all four constructs satisfy the criterion for discriminant validity because the square roots of AVEs are higher than their correlations with each other. In sum, discriminant validity was established for SEM analysis.

4.2 Structural model assessment

After confirming the adequacy of the measurement model, we tested the hypothesised structural model with the use of maximum likelihood estimation in AMOS (Version 24). Figure 2 presents the structural model in detail, while Table 6 presents the structural paths.

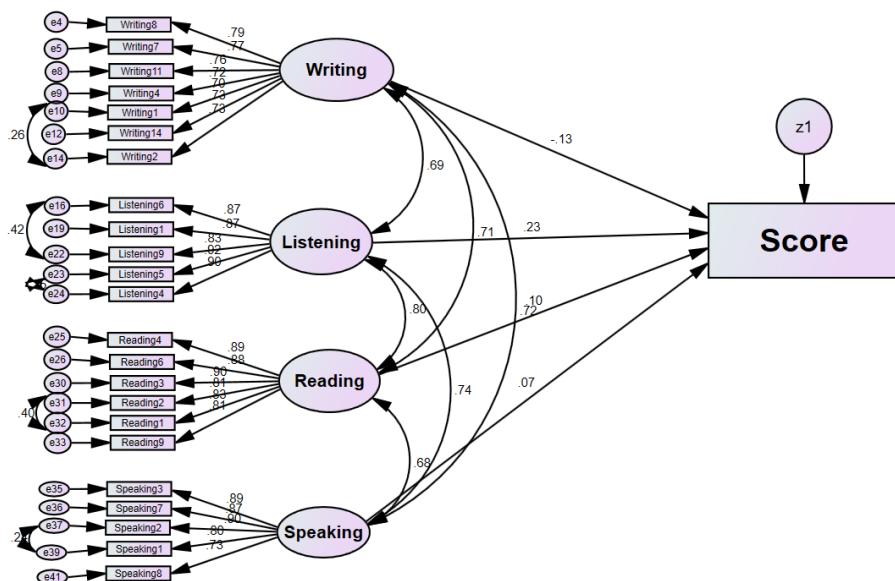


Figure 2. SEM results

Table 6. The study's structural paths ($R^2 = .079$)

Structural path	β	p
Score <--- Writing	-.132	.111
Score <--- Listening	.228	.016
Score <--- Reading	.100	.266
Score <--- Speaking	.068	.405

Among the four linguistic-challenge constructs, only listening revealed a statistically significant association ($p = .016$) at a small magnitude of .228 (Hair et al., 2019). The other three skills (writing, reading, and speaking) were not significant predictors of the scores. Writing showed a negative coefficient, but this relationship was not statistically significant ($p = .111$) and therefore should not be interpreted as an adverse association with the students' test performance.

Before answering the second research question concerning the differences in the challenges across demographic groups, descriptive statistics were computed for students' self-reported difficulties across the four language skills. The mean scores and standard deviations for each subskill are presented in Table 7.

Table 7. Means and standard deviations for each subskill challenge

Subskills	Mean	SD
WRITING		
1. Planning written assignments	4.21	1.244
2. Expressing ideas in correct English	4.18	1.210

3. Revising written work	4.39	1.138
4. Using appropriate academic style	4.09	1.260
5. Writing a bibliography/ references section	4.29	1.247
6. Proofreading written work	4.16	1.171
7. Referring to sources in written work	4.43	1.217
8. Summarising/ paraphrasing ideas in sources	4.39	1.188
9. Organising ideas in coherent paragraphs	4.28	1.211
10. Expressing ideas clearly and logically	4.23	1.241
11. Linking ideas from different sources	4.30	1.247
12. Writing the introduction to an assignment	4.57	1.212
13. Writing the body of an assignment	4.18	1.299
14. Writing the conclusion to an assignment	4.54	1.230
15. Linking sentences smoothly	4.32	1.223
READING		
1. Understanding specific vocabulary	4.65	1.334
2. Working out the meaning of difficult words	4.43	1.311
3. Reading carefully to understand a text	4.70	1.270
4. Reading quickly to find specific information	4.65	1.271
5. Identifying supporting ideas and examples	4.67	1.235
6. Reading quickly to get overall meaning	4.55	1.307
7. Identifying the key ideas of a text	4.62	1.316
8. Taking brief, relevant notes	4.52	1.275
9. Using your own words when taking notes	4.56	1.314
SPEAKING		
1. Speaking clearly (pronunciation)	4.52	1.462
2. Presenting information/ ideas	4.35	1.386
3. Participating actively in discussion	4.27	1.375
4. Communicating ideas fluently	4.14	1.455
5. Asking questions	4.48	1.377
6. Answering questions	4.25	1.371
7. Communicating ideas confidently	4.16	1.460
8. Using visual aids (e.g., PowerPoint)	4.68	1.360
LISTENING		
1. Understanding the main ideas of lectures	4.74	1.379
2. Understanding the overall organisation of lectures	4.67	1.364
3. Understanding key vocabulary	4.68	1.410
4. Taking brief, clear notes	4.49	1.362
5. Identifying supporting ideas and examples	4.56	1.400
6. Understanding lecturers' accents	4.60	1.372
7. Identifying different views and ideas	4.57	1.343
8. Understanding questions	4.74	1.367
9. Understanding classmates' accents	4.57	1.357

Data in Table 7 shows linguistic challenges faced by undergraduate students across the four language macro skills: writing, reading, speaking, and listening, as well as for each subskill. It should be noted that the higher the mean, the fewer difficulties the students have. Overall, the participants reported relatively high mean scores for

all the subskills, suggesting that they reported relatively low levels of difficulty across the four macro skills.

Regarding writing skills, the data reveal low to moderate levels of perceived difficulty, with mean scores ranging from 4.09 to 4.57/7.0. Among the subskills, students reported the least difficulty in writing the introduction ($M = 4.57$, $SD = 1.212$) and writing the conclusion ($M = 4.54$, $SD = 1.230$). Other moderate difficulties are referring to sources in written work ($M = 4.43$, $SD = 1.217$), summarising/paraphrasing ideas ($M = 4.39$, $SD = 1.188$), and organising ideas in coherent paragraphs ($M = 4.28$, $SD = 1.211$). Conversely, relatively higher levels of difficulty are related to using appropriate academic style ($M = 4.09$, $SD = 1.26$) and proofreading written work ($M = 4.16$, $SD = 1.171$). These findings suggest that students encounter fewer difficulties with higher-order writing skills, particularly those involving structure, referencing, and integration of source material, as opposed to surface-level mechanics. This may reflect the usefulness of the introductory academic writing course, which provided them with knowledge of how to structure an essay and to cite sources effectively.

Of the 482 participants, 164 responded to the optional open-ended question; however, the majority (66%) simply wrote: “No, none, I don’t have, etc.” Among the substantive comments, the word ‘writing’ appeared in 14 participants’ additional notes, accounting for 8.5 percent. They expressed concerns such as: “Limited practice with specific writing conventions, such as scientific reports or formal essays” (ID 257-FIS) or “writing may be the most difficult skill when I learn English, especially when I want to write the research paper” (ID 226-FIS). One participant provided further detail about the challenges: “Developing accuracy in spelling, punctuation, and grammatical structure. Adopting the appropriate tone and style for formal or informal contexts” (ID 177-FIT).

With regard to reading, the students had much less difficulty than writing in general, as shown in the consistently high mean scores ranging from 4.52 to 4.70. The least problematic areas identified include reading carefully to understand a text ($M = 4.70$, $SD = 1.270$), identifying supporting ideas and examples ($M = 4.67$, $SD = 1.235$), and reading quickly to find specific information ($M = 4.65$, $SD = 1.271$). Students experienced a little more difficulty with understanding specific vocabulary ($M = 4.65$, $SD = 1.334$) and identifying key ideas of a text ($M = 4.62$, $SD = 1.316$). The relatively low standard deviation suggests a shared perception of these challenges across the student cohort. Regarding additional comments on reading, ten participants (6.1%) shared their views on the specific word ‘reading’. While three of them simply wrote: “reading”, others provided more detailed perspectives on the challenges. For example, participant ID 341-FMT reported difficulties with the large amount of reading material: “Reading a large amount of text for each topic (10-20 textbook pages per chapter)”. On the other hand, participant ID 220-FIS found “Reading comprehension patterns are hard to follow”. It is also worth pointing out that the word ‘vocabulary’, which posed challenges across all four macro skills, was also raised by 17 participants (accounting for 10.4%). One of the participants wrote:

“I have a problem with my vocabulary not being rich enough when studying the major” (ID 375-FIT).

In terms of speaking, the data show greater difficulty than in writing and reading, with mean scores ranging from 4.14 to 4.68. The least difficult task reported was *using visual aids such as PowerPoint* ($M = 4.68$, $SD = 1.360$). Students also indicated less difficulty in *speaking clearly with correct pronunciation* ($M = 4.52$, $SD = 1.462$), *asking questions* ($M = 4.48$, $SD = 1.377$), and *presenting information or ideas* ($M = 4.35$, $SD = 1.386$) in relation to other subskills like *communicating ideas fluently* ($M = 4.14$, $SD = 1.455$). Unlike in the case of reading skills above, the relatively high SDs across the speaking tasks further indicate greater individual differences. Among 12 comments (7.3%) containing the specific word ‘speaking’, five appeared together with other skills: listening and writing. The challenges for these macro skills included a lack of confidence, having attended high school in a rural area, and limited vocabulary to express themselves (for both speaking and writing). One student wrote: “Can’t express what I want to convey to others because I think in Vietnamese instead of English” (ID 327-FIT). Another one admitted that “I can only express a single sentence and often struggle to organise my ideas logically. That’s why sometimes people don’t catch my points when I’m presenting” (ID 467-FIS).

Mean scores for listening subskills varied little, ranging from 4.49 to 4.74. The least challenging areas were understanding the main ideas of lectures ($M = 4.74$, $SD = 1.379$) and understanding questions ($M = 4.74$, $SD = 1.367$). Other moderate challenges included understanding key vocabulary ($M = 4.68$, $SD = 1.410$), understanding the overall organisation of lectures ($M = 4.67$, $SD = 1.364$), and understanding lecturers’ accents ($M = 4.60$, $SD = 1.372$). The highest challenge is taking brief, clear notes ($M = 4.49$), suggesting that more attention should be paid to this in the training programme. Fifteen specific comments contained the word ‘listening,’ but two of these were in the same line of thought (challenges) for other skills (speaking), and three participants entered only the word ‘listening’ without explaining further. Detailed perspectives on challenges for this macro skill focused on getting the implied or main ideas in lectures, especially those delivered by native speakers. However, sometimes, these difficulties were also due to the Vietnamese teachers’ spoken English, as noted by one participant: “...and some lecturers have a pretty bad pronunciation and accent during teaching...” (ID443-FIT). Other reported challenges included a lack of background knowledge and difficulty jotting down key points in conversations or lectures.

In summary, the results reveal that reading and listening (receptive) are perceived as less challenging than writing and speaking (productive). The lower mean scores across some items suggest a pressing need for pedagogical interventions that focus on academic literacy skills, particularly in enhancing students’ abilities to process, produce, and engage with academic texts and spoken discourse in English. The participants’ additional comments largely support the quantitative findings, with challenges covering cognitive, behavioural and technical domains.

To address the second research question—whether students’ difficulties

differed by gender, year of study, and academic discipline—we conducted an independent-samples *t*-test and an analysis of variance (ANOVA). The following sections present the results of these inferential tests.

Table 8. Gender differences in linguistic challenges

	<i>Gender</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>F</i>	<i>Sig (eta)</i>	<i>Mean difference</i>
Writing	Female	266	4.219	.931	.866	.353	-.1887
	Male	216	4.408	.966			
Reading	Female	266	4.477	1.079	5.716	.017 (.013)	-.2616
	Male	216	4.738	1.214			
Speaking	Female	266	4.206	1.188	2.538	.112	-.3364
	Male	216	4.542	1.276			
Listening	Female	266	4.554	1.207	2.147	.143	-.1582
	Male	216	4.712	1.307			

An independent-sample *t*-test was conducted to compare the linguistic challenges for males and females. There was a statistically significant difference in scores for males and females related to reading skills ($p=.017$), but not for the other three skills ($p>.05$). The magnitude of the differences for reading was very small (eta squared $=.013$). The difference in the mean between females and males for each macro skill is presented in Table 8.

A one-way between-groups analysis of variance was conducted to explore whether students' linguistic challenges in each macro skill differed by year of study (Years 2, 3, and 4).

Table 9. Differences by study year in linguistic challenges

<i>Skills</i>	<i>(I) Year</i>	<i>(J) Year</i>	<i>Mean Difference (I-J)</i>	<i>Sig.</i>
Writing ($F=.780$)	2	3	.06629	.810
		4	-.06205	.839
		3	-.06629	.810
	4	4	-.12834	.426
		2	.06205	.839
		3	.12834	.426
Reading ($F=.846$)	2	3	.10317	.705
		4	-.05550	.908
		3	-.10317	.705
	4	4	-.15867	.408
		2	.05550	.908
		3	.15867	.408
Speaking ($F=3.480$)	2	3	.32187	.054
		4	.03229	.972
		3	-.32187	.054
	4	4	-.28958	.077
		2	-.03229	.972
		3		

		3	.28958	.077
Listening (F=1.726)	2	3	.16248	.483
		4	-.08424	.830
		2	-.16248	.483
	3	4	-.24672	.163
		2	.08424	.830
		3	.24672	.163

The ANOVA test indicated a statistically significant but small differences of study year on speaking difficulty only; however, none of the individual pairwise comparisons reached significance after Tukey adjustment. The difference in the mean, calculated via the Tukey HSD test, among the three-study year for each macro skill is presented in Table 9.

A one-way between-groups analysis of variance was also conducted to explore the variation in three faculties: International Studies (FIS), Information Technology (FIT), and Management and Tourism (FMT) on linguistic challenges of each macro skill.

Table 10. Differences by faculty in linguistic challenges

<i>Macro skills</i>	<i>(I) Faculty</i>	<i>(J) Faculty</i>	<i>Mean Difference (I-J)</i>	<i>Sig.</i>
Writing	FIS	FIT	.10400	.587
		FMT	.18635	.395
	FIT	FIS	-.10400	.587
		FMT	.08235	.785
	FMT	FIS	-.18635	.395
		FIT	-.08235	.785
Reading	FIS	FIT	.03125	.968
		FMT	.04276	.967
	FIT	FIS	-.03125	.968
		FMT	.01150	.997
	FMT	FIS	-.04276	.967
		FIT	-.01150	.997
Speaking	FIS	FIT	.04237	.949
		FMT	.08989	.880
	FIT	FIS	-.04237	.949
		FMT	.04752	.954
	FMT	FIS	-.08989	.880
		FIT	-.04752	.954
Listening	FIS	FIT	.16200	.475
		FMT	.39918	.087
	FIT	FIS	-.16200	.475
		FMT	.23718	.315
	FMT	FIS	-.39918	.087
		FIT	-.23718	.315

There was no statistically significant difference among students from the three faculties in terms of linguistic challenges across the four macro skills ($p > .05$). The difference in the mean, calculated via the Tukey HSD test, between three faculties for each macro skill is presented in Table 10.

5 Discussion

The current study's findings extend existing EMI research by suggesting that students' linguistic difficulties were not restricted to individual skills but constituted an interconnected system of challenges that occurred across different study majors and study years. The study results also reveal that the English proficiency test scores show weak associations with the linguistic challenges, highlighting a clear distinction between general English proficiency and specific language competence needed for the learning of specific majors. Four key discussion points can be interpreted from the study's results.

First, students perceived more linguistic challenges in productive skills (writing and speaking) than in receptive skills (reading and listening). This finding agrees with Kamasak et al.'s (2021) results, which showed that students had the most difficulties in writing, then speaking, but less in listening and reading. Students' responses in the questionnaire's open-ended section revealed limitations in some lecturers' English use, representing an additional barrier to EMI learning. This finding is consistent with Galloway and Sahan's (2021) observation in their study about EMI in Thailand and Vietnam about the lecturers' English proficiency, which "may negatively affect the students' acquisition of both the English language and content" (p. 16).

Some other specific difficulties that the participants of this study faced, expressed through their responses in the open questions, are also consistent with other research, which found that poor pronunciation limits participation in class discussion; limited vocabulary impedes understanding of reading texts and lecture content; poor academic writing skills were negatively correlated with their assignments (Byun et al., 2011; Hoang et al., 2023; Le, 2025). Nonetheless, this finding should be interpreted cautiously because lecturer proficiency was identified through students' open-ended responses, not through direct assessment.

This finding may reflect the greater demands involved in producing academic language instead of simply receiving and processing it. From Cummins's (1979) distinction between BICS and CALP, the speaking and writing tasks require more than conversational fluency or general communicative competence. Students are required to use language for cognitively demanding and context-reduced academic purposes. The findings are consistent with Kamasak et al. (2021), who revealed greater difficulty with productive skills. However, the contribution of the present study lies in showing that these productive-skill challenges were not isolated from difficulties in listening and reading but formed part of a closely connected pattern of EMI-related language requirements.

Second, the results showed no statistical differences among students from the three faculties in all four macro skills. One possible explanation is that the three programmes shared a similar institutional environment and imposed overlapping academic-language demands, despite differences in disciplinary content. These results partly contrast with the findings of Kamasak et al. (2021), who claimed that social sciences students had more challenges in reading and writing than engineering students. The non-significant differences may reflect similarities in the University's curricula and in the broad academic-language requirements from the three majors. In addition, further comparisons across all study majors may reveal specific differences in disciplinary vocabulary, assessment practices, and classroom use of English for specific purposes.

Likewise, linguistic challenges did not differ significantly across the second, third, and fourth years of study. This result suggests that although students become more familiar with English-medium learning, the linguistic and cognitive complexity of their disciplinary content may also increase. Greater familiarity with EMI may, therefore, be offset by more specialised vocabulary, more complex lectures, and higher expectations for independent academic production. This interpretation is consistent with the distinction between general language competence and CALP. It is evident in the existing literature that language-related challenges do not disappear over the duration of students' degree programmes (Lei & Hu, 2014; Soruç et al., 2021; Kamasak et al., 2021).

Third, strong correlations among linguistic challenges indicate that EMI-related linguistic difficulties operate as an interconnected system, rather than as isolated skill constraints. These results align with those reported in studies from other contexts, such as Turkey and Japan (Aizawa et al., 2023; Kamasak et al., 2021). Students who struggle with one macro skill are highly likely to face difficulties in others (Soruç et al., 2021). This finding extends skill-specific accounts of EMI difficulty by suggesting that linguistic support should not treat the four language skills as completely separate problems.

Fourth, the weak relationship between students' general English scores and their EMI-related challenges may be interpreted through Cummins' (1979) distinction between BICS and CALP. More specifically, although the general English test may reflect students' foundational linguistic competence, it may not adequately capture their ability to use English for cognitively demanding and discipline-specific academic tasks. Students who achieve satisfactory results in general English may therefore continue to experience difficulty following conceptually dense lectures, interpreting specialised texts, participating in academic discussion, and producing extended disciplinary writing. The finding suggests that general English proficiency constitutes a necessary but insufficient condition for effective EMI participation. It also supports the need to supplement general language preparation with sustained academic and discipline-specific language development throughout students' degree programmes.

Taken together, the current study's findings indicate that successful EMI participation depends not only on students' foundational general English

proficiency, but also on the continuing development of academic and discipline-specific language competence throughout their four-year degree programmes.

6 Conclusion and Implications

This study set out to investigate language-related challenges that undergraduate students at a Vietnamese university faced during their EMI studies. The findings demonstrate that challenges in listening, speaking, reading, and writing constitute an interconnected system rather than a collection of isolated skill deficits. Although speaking and writing were perceived as particularly demanding, difficulties in these productive skills were closely associated with those experienced in listening and reading. This study advances our understanding of the linguistic challenges experienced by undergraduate students in Vietnamese EMI programmes in light of the distinction between BICS and CALP (Cummins, 1979).

The study's findings support a multidimensional and developmental conception of EMI readiness. Readiness for EMI should not be understood as a fixed score that students receive from a general English course. It should instead be considered a continuing capacity to make use of linguistic resources in increasingly complex and discipline-specific academic activities.

This study yields two key implications for Vietnamese HEIs and contributes to the existing literature on EMI globally. First, universities should consider implementing comprehensive linguistic support programmes for students, such as language tutoring services and specialised English workshops tailored to academic and discipline-related contexts. Close collaboration between language and content teachers may help address the students' needs in EMI courses (Kamasak et al., 2021). These findings may have wider implications for EMI contexts not only in Vietnam but also in other Asian countries, where preparatory-style EMI models are more pervasive (Macaro et al., 2018). Content lecturers can suggest important disciplinary genres, terminology, etc., while language educators can help design appropriate scaffolding and language-development activities.

Second, academic-language support should be provided throughout students' degree programmes rather than concentrated only in preparatory or first-year courses. This support should not only equip students with the essential academic language skills but also foster greater self-efficacy and self-regulatory learning behaviours (Rose et al., 2020). Enhanced language support systems could be implemented to better prepare students for the academic language demands of discipline-specific work in EMI programmes, with greater levels of support offered to those with lower-level proficiency. As Aizawa et al. (2023) concluded, undergraduates should be encouraged to engage in out-of-class learning and revision, which can help increase their learning autonomy and effort.

The findings of this study are subject to at least two limitations. First, the data were collected from a language-focused university in Vietnam, where students received intensive English training during the first year of their undergraduate study.

The findings may therefore not be generalisable to other higher education institutions where students do not receive a comparable period of intensive language training. Future studies should collect data from different types of institutions to provide a more comprehensive picture and to compare the challenges experienced by different groups of EMI students. Second, the current study relied predominantly on quantitative data, with a limited supplementary open-ended component, which limits the depth of interpretation. Future research could incorporate student interviews to explore in greater detail why particular challenges arise and, more importantly, what forms of support may help students address them.

Authors' Contributions

Luu Ly Hoang contributed to the literature review, data collection and editing of the manuscript. Ngoc Thach Pham contributed to conceptualisation, methodology, data analysis, writing of the original draft and supervision. Both authors reviewed and approved the final version.

Data Availability Statement

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

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Formal ethical approval was not required for this questionnaire-based study under the applicable institutional requirements. Students provided informed consent before completing the questionnaire.

AI Use Disclosure

The authors have used ChatGPT and NotebookLM to help

- identify relevant articles published in JoLIE
- fix language and formatting issues

The authors take full responsibility for the final content of the manuscript.

Conflicts of Interest

The authors declare no conflicts of interest.

References

- Aizawa, I., Rose, H., Thompson, G., & Curle, S. (2023). Beyond the threshold: Exploring English language proficiency, linguistic challenges, and academic language skills of Japanese students in an English medium instruction programme. *Language Teaching Research*, 27(4), 837–861. <https://doi.org/10.1177/1362168820965510>
- Asanov, A. (2025). Examining EFL teachers' assessment literacy: Factors of influence at Westminster International University in Tashkent. *Journal of Linguistic and Intercultural Education*, 18(1), 7–32. <https://doi.org/10.29302/jolie.2025.18.1.1>
- Bradford, A. (2016). Toward a typology of implementation challenges facing English-medium instruction in higher education: Evidence from Japan. *Journal of Studies in International Education*, 20(4), 339–356. <https://doi.org/10.1177/1028315316647165>
- Byun, K., Chu, H., Kim, M., Park, I., Kim, S., & Jung, J. (2011). English-medium teaching in Korean higher education: Policy debates and reality. *Higher Education*, 62, 431–449. <https://doi.org/10.1007/s10734-010-9397-4>
- Chapple, J. (2015). Teaching in English is not necessarily the teaching of English. *International Education Studies*, 8(3), 1–13. <https://doi.org/10.5539/ies.v8n3p1>
- Cho, D. W. (2012). English-medium instruction in the university context of Korea: Tradeoff between teaching outcomes and media-initiated university ranking. *The Journal of Asia TEFL*, 9(4), 135–163.
- Chroqui, R., & Ouahidi, L. M. (2025). EMI professors' readiness: A systematic literature review. *Journal of Linguistic and Intercultural Education*, 18(1). <https://doi.org/10.29302/jolie.2025.18.1.3>
- Ciprianová, E., & Čujdiková, D. (2025). Metacognitive awareness and strategies in developing reading comprehension in a foreign language. *Journal of Linguistic and Intercultural Education*, 18(1), 73–91. <https://doi.org/10.29302/jolie.2025.18.1.4>
- Cummins, J. (1979). *Cognitive/academic language proficiency, linguistic interdependence, the optimum age question and some other matters* (Working Papers on Bilingualism, No. 19). Ontario Institute for Studies in Education. <https://files.eric.ed.gov/fulltext/ED184334.pdf>
- Dearden, J. (2014). *English as a medium of instruction: A growing global phenomenon*. British Council. https://www.teachingenglish.org.uk/sites/teacheng/files/pub_E484%20EMI%20-%20Cover%20option_3%20FINAL_Web.pdf
- Evans, S., & Morrison, B. (2011). The student experience of English-medium higher education in Hong Kong. *Language and Education*, 25(2), 147–162. <https://doi.org/10.1080/09500782.2011.553287>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>

Galloway, N., Kriukow, J., & Numajiri, T. (2017). *Internationalisation, higher education and the growing demand for English: An investigation into the English medium of instruction (EMI) movement in China and Japan*. British Council. https://www.teachingenglish.org.uk/sites/teacheng/files/H035%20ELTRA%20Internationalisation_HE_and%20the%20growing%20demand%20for%20English%20A4_FINAL_WEB.pdf

Galloway, N., & Ruegg, R. (2020). The provision of student support on English medium instruction programs in Japan and China. *Journal of English for Academic Purposes*, 45, 100846. <https://doi.org/10.1016/j.jeap.2020.100846>

Galloway, N., & Sahan, K. (2021). *An investigation into English medium instruction in higher education in Thailand and Vietnam*. British Council. https://www.teachingenglish.org.uk/sites/teacheng/files/4143_Navig8_EME_HE_Thailand_Vietnam.pdf

Government of Vietnam. (2008). *Decision No. 1400/QĐ-TTg on “Teaching and learning foreign languages in the national education system, period 2008–2020”*. <https://vanban.chinhphu.vn/default.aspx?pageid=27160&docid=78437>

Government of Vietnam. (2025). *Decision No. 2371/QĐ-TTg on approving project “Making English the second language in schools for the period 2025–2035, with a vision to 2045”*. <https://vanban.chinhphu.vn/?pageid=27160&docid=215728>

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage.

Hamid, M. O., Nguyen, H. T. M., & Baldauf, R. B. (2013). Medium of instruction in Asia: Context, process and outcomes. *Current Issues in Language Planning*, 14(1), 1–15. <https://doi.org/10.1080/14664208.2013.792130>

Hoang, N. T., Bui, T. N., Le, D. H., & Pham, V. D. (2023). Students’ challenges on learning EMI courses at a technical university in Vietnam: An investigation from students’ voices. *Proceedings of the AsiaCALL International Conference*, 1, 131–151. https://www.researchgate.net/publication/369132641_Students%27_Challenges_on_Learning_EMI_Courses_at_a_Technical_University_in_Vietnam_An_Investigation_from_Students%27_Voices

Kamasak, R., Sahan, K., & Rose, H. (2021). Academic language-related challenges at an English-medium university. *Journal of English for Academic Purposes*, 49, Article 100945. <https://doi.org/10.1016/j.jeap.2020.100945>

Le, D. M. (2012). English as a medium of instruction at tertiary education system in Vietnam. *The Journal of Asia TEFL*, 9(2), 97–122.

Le, T. T. N. (2016). *Exploring students’ experiences of English medium instruction in Vietnamese universities* [Doctoral dissertation, University of Newcastle]. Open Research Newcastle. <https://hdl.handle.net/1959.13/1335817>

- Lei, J., & Hu, G. (2014). Is English-medium instruction effective in improving Chinese undergraduate students' English competence? *IRAL International Review of Applied Linguistics in Language Teaching*, 52(2), 99–126. <https://doi.org/10.1515/iral-2014-0005>
- Macaro, E. (2018). *English medium instruction: Content and language in policy and practice*. Oxford University Press.
- Macaro, E., Curle, S., Pun, J., An, J., & Dearden, J. (2018). A systematic review of English medium instruction in higher education. *Language Teaching*, 51(1), 36–76. <https://doi.org/10.1017/S0261444817000350>
- Pallant, J. (2020). *SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS* (7th ed.). Routledge. <https://doi.org/10.4324/9781003117452>
- Politburo. (2024). *Conclusion No. 91-KL/TW on the implementation of fundamental and comprehensive renovation in education and training*. <https://tulieuvaankien.dangcongsan.vn/Uploads/2024/8/7/15/KL-91-BCT.pdf>
- Rose, H., Curle, S., Aizawa, I., & Thompson, G. (2020). What drives success in English-medium-taught courses? The interplay between language proficiency, academic skills, and motivation. *Studies in Higher Education*, 45(11), 2149–2161. <https://doi.org/10.1080/03075079.2019.1590690>
- Soruç, A., Altay, M., Curle, S., & Yüksel, D. (2021). Students' academic language-related challenges in English medium instruction: The role of English proficiency and language gain. *System*, 103, 102651. <https://doi.org/10.1016/j.system.2021.102651>
- Sposito, V. A., Hand, M. L., & Skarpness, B. (1983). On the efficiency of using the sample kurtosis in selecting optimal L_p estimators. *Communications in Statistics—Simulation and Computation*, 12(3), 265–272. <https://doi.org/10.1080/03610918308812318>
- Tran, L. T., & Nguyen, H. T. (2018). Internationalisation of higher education in Vietnam through English medium instruction (EMI): Practices, tensions and implications for local language policies. In I. Liyanage (Ed.), *Multilingual education yearbook 2018: Internationalization, stakeholders and multilingual education contexts* (pp. 91–106). Springer. https://doi.org/10.1007/978-3-319-77655-2_6
- Vu, N. T. T., & Burns, A. (2014). English as a medium of instruction: Challenges for Vietnamese tertiary lecturers. *The Journal of Asia TEFL*, 11(3), 1–31.