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ARTICLE

Investigating Thai University Learners' Attitudes towards English as a Medium of Instruction: Opportunities and Challenges

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ABSTRACT

The present study investigates Thai university learners' attitudes towards using English as a medium of instruction (EMI) in higher education. A total of 204 students enrolled in international programs at a public university voluntarily completed a five-point Likert scale questionnaire, and 12 participants were randomly chosen for follow-up interviews to explore the perceived opportunities and challenges of EMI. The results show that Thai university learners generally hold positive attitudes towards EMI, seeing it as a helpful tool for enhancing their English language skills, boosting self-confidence, and competitiveness in the job market. Moreover, students noted that EMI exposure contributed to their overall academic development and global attitude. However, several concerns were identified, particularly regarding financial burdens caused by high tuition fees and the challenges associated with insufficient English proficiency. Some students pointed out difficulties in comprehending course materials and effectively engaging in classroom discussions, which affected their overall learning experience. These findings suggest that while EMI presents significant advantages, targeted support mechanisms, such as language assistance programs and financial aid, may be necessary to lessen its challenges. The present study provides valuable insights into the implications of EMI in higher education and suggests directions for future research to optimize its implementation.

Keywords: English Medium Instruction (EMI); Thai University Learners; Attitudes; Opportunities; Challenges

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ARTICLE INFO

Received: 5 February 2025 | Revised: 28 February 2025 | Accepted: 6 March 2025 | Published Online: 14 March 2025 DOI: https://doi.org/10.30564/fls.v7i3.8660

CITATION

Jiang, Y., Sukying, A., 2025. Investigating Thai University Learners' Attitudes towards English as a Medium of Instruction: Opportunities and Challenges. Forum for Linguistic Studies. 7(3): 669–684. DOI: https://doi.org/10.30564/fls.v7i3.8660

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1. Introduction

It is widely accepted that English is the international language and primary communication medium and the key to socio-cultural advancement and might be a passport to a global world^[1]. English has also become a necessary tool for global higher education institutions to be competitive and promote more internationalization by accommodating learners who use English as a medium of instruction^[2, 3]. As such, there is currently a shift in non-anglophone countries from English being taught as a foreign language (EFL) to English being the medium of instruction (EMI) for academic subjects^[1, 4, 5].

English Medium Instruction (EMI) is perceived as the use of the English language for the instruction of academic subjects, excluding English, in countries or jurisdictions where the predominant language of the population is not English^[1, 2, 4]. Indeed, the defining criteria of this approach are that it occurs in national contexts where English is not the predominant language of communication outside of the classroom^[6]. Over the last three decades, several driving forces have led to the adoption of this language approach around the world^[7]. The increase in EMI was due to the belief that using English in higher education settings would help learners enhance their English proficiency, which, in turn, would help them secure a better, more promising future career. Moreover, the internationalization of education also reinforced the need for EMI. Implementing EMI at tertiary levels sought to balance global and local forces. It was touted by the government and institutions as a specific strategy to enhance the competitiveness of national higher institutions and their learners.

In the Thai context, policymakers, language planners, educators, and teachers are attempting to augment proficiency in all English language skills. As stated in the National Education Reform Act of 1999, Thai learners should have global literacy, acquire English language skills, and understand other countries' cultures to qualify as global citizens. The current English curriculum reform emphasizes learner-centered approaches focusing on raising the level of learners' foreign language skills for social and business situations [3, 5, 7, 8]. Specifically, the Ministry of Education (MOE) intends for all university courses across all disciplines to be delivered in English or implement English-medium instruction. As such, Thai institutions currently provide a range of

English-medium programs across various fields at the tertiary levels of education^[7]. This approach aims to strengthen learners' English abilities and professional knowledge and increase academic transactions, which should improve the learners' career prospects. EMI is considered particularly beneficial for learners with little exposure to English outside the classroom.

The Thai government has long realized the importance of the English language at all education levels [7]. As such, the use of English is rapidly increasing, and it has become a compulsory subject and the first foreign language for studying in Thailand. At the tertiary level in Thailand, numerous initiatives have been founded by the government and educational institutions to enhance English language education, including English curricula, English Program (EP), Mini English Program (MEP), and International Programs [8, 9]. The EMI programs are run as an "international program" in which English is used as the sole medium of instruction at public and private universities in Thailand. The programs are usually limited to mainstream subjects, such as Business Administration, English, or Mass Communication. Thammasat, Chulalongkorn, and Kasetsart were the leading public universities offering international programs for Thai and foreign learners using English as a medium of instruction [10].

These studies highlighted that the popularity of EMI programs in Thailand resulted from the influences of the national education policy, the current job market and the social status associated with such programs. Indeed, learners primarily focused on the career benefits of English and exhibited diminished motivation to acquire knowledge and the English language for its intrinsic value. In addition, previous research indicated that Thai learners were unlikely to take advantage of the English communication and cross-cultural advantages provided by academic and social interactions with international faculty^[7]. Moreover, under the pressure of both global and local forces, Thai higher institutions struggle to design EMI programs that can cater to both international and native learners [7]. Therefore, this study aimed to examine the attitudes, opportunities, and challenges towards implementing EMI at a government university in Thailand from the learners' point of view. The following research questions were established to guide the study.

(1) What are Thai university learners' attitudes towards English as a medium of instruction (EMI)?

- (2) What are the opportunities offered by EMI according to Thai university learners?
- (3) What are the challenges associated with EMI according to Thai university learners?

2. Literature Review

2.1. English Medium Instruction

There are three models for EMI at university levels [11]: plurilingual education, adjunct CLIL, and language-embedded content courses. Plurilingual education requires learners to acquire both content and more than one language during different discipline programs. Learners must possess a specific proficiency level in the instructional language (e.g., English) to succeed in the EMI program and effectively transition between languages in real-time situations. Adjunct CLIL is a model in which language instruction occurs concurrently with subject instruction. A content-based approach and meaningful instructional input are used for additional language and content teaching. The final model entails content programs specifically designed from the beginning to facilitate language development.

Two approaches to EMI implementation include "extensive instruction through the vehicular language" and "partial instruction through the vehicular language" [11]. The first approach requires full use of English "to introduce, summarize and revise topics, with minimal switches into the first language to explain specific language aspects of the subject or vocabulary items" [11]. The latter approach is undertaken as bilingual amalgamated instruction using code-switching, particularly in bilingual classrooms. Hu & Li [12] also noted that the use of English in individual courses could vary tremendously from 100% or nearly exclusive use as the sole language of instruction to being used more or less frequently than learners' first language. Use may also be restricted to classroom management and/or translation of some concepts, definitions, and formulae.

2.2. Related Studies to EMI

Previous studies show that learners have positive views toward implementing EMI and related programs ^[5, 13–16]. For example, Seikkula-Leino ^[16] found that, although there was no significant difference in learners' understanding of the

content, motivation increased when compared with learners who were only involved in first language (L1) instruction. Lasagabaster^[17] also found that the learners' motivation increased, contributing to their English learning progress. Furthermore, Ghani^[14] demonstrated that a number of students held favorable attitudes towards EMI programs in affective, behavioral, and cognitive dimensions. In Turkey, it has been reported that learners saw themselves as disadvantaged during their university studies due to inadequate language competence. However, learners and instructors concurred that enhancements to the system would benefit the entire university student population, not only in Turkey but across all European nations^[18]. Indeed, Rogier^[15] demonstrated a statistically significant improvement in all four Englishlanguage ability categories assessed by the IELTS exam after four years of English Medium Instruction (EMI). The most improvement occurred in speaking, reading, writing, and listening.

Research has shown educational effectiveness and difficulties in EM programs [3, 5, 14, 19-22]. A study in a Bangladeshi private university indicated that participants had conflicting views on the effectiveness of EMI concerning learners' understanding of course content and whether EMI classes improved learners' English proficiency [10]. Nevertheless, learners generally supported the EMI policy when considering their future careers within the global world [10]. Yang^[23] also reported that learners' receptive linguistic skills were positively correlated with productive English competence. EMI program learners also performed better than those enrolled in a non-EMI program in the national English examination^[24]. This is likely due to the learners' improved attitude towards using English in and outside the classroom. Second language (L2) learners also held more positive attitudes than in other programs, and females had a more positive stance towards EMI than males [13].

Implementing EMI is not without challenges. Klaassen and De Graaff^[25] examined the EMI practice at the Delft University of Technology in the Netherlands and found that methodological and language-related challenges were common in EMI programs. Others have argued that training local lecturers and learners in EMI practice is necessary due to insufficient language skills in universities in Europe and Turkey^[26, 27]. A study conducted at a major business school in Denmark found that students' perceptions of 31 non-native

English-speaking instructors' language proficiency significantly influenced their views on the instructors' overall teaching competence and vice versa^[28]. This finding suggests a reciprocal relationship, potentially shaped by speech-related stereotypes, as observed in social-psychological research^[28]. These findings highlight the need for universities to carefully consider such biases when using student evaluations to assess teaching quality in EMI courses.

Attitudes towards using EMI in higher education vary according to different contexts. For example, in Croatia, despite the progressive academic internationalization and the proliferation of English-taught programs across Europe, university instruction is predominantly performed in its mother tongue (Croatian), and the adoption of EMI was largely met with suspicion, apprehension, and trepidation. Indeed, many respondents were unwilling to tackle EMI and did not believe courses should be conducted in English due to the ability of lecturers and a lack of incentive to utilize English when Croatian was an option [29].

Similar results have been found in Asian countries. It has been contended that the classroom-based format of EMI in Indonesia is unlikely to improve the four language skills (listening, reading, speaking, and writing) for both learners and instructors [3, 8, 30]. The presumption that EMI would inherently lead to bi-literacy unfounded, as only bilingual individuals proficient in both languages could fully leverage their bilingualism in EMI classrooms. Learners or educators who lack language proficiency frequently experience academic, social, and psychological difficulties. Joe and Lee^[31] provided a similar perspective on EMI practice in a Korean setting. Even with a high level of English proficiency, medical learners still needed a lesson summary in their native language when completing each EMI class. Zenkova and Khamitova^[21] found that learners held a relatively positive general attitude to EMI at the university in Kazakhstan, particularly in light of English's global prominence and the internationalization of education. Nonetheless, most people expressed apprehensions over the influence of EMI on the quality of subject learning, as it relied on the high competence levels in English of both students and educators, as well as their enthusiasm to engage in English language study and instruction.

In China, Wu^[32] explored college students' perceptions of English Medium Instruction (EMI) about its viabil-

ity and potential challenges within an EFL context. Despite acknowledging the advantages of EMI, a large number of learners indicated challenges in comprehending the content and educational resources. Likewise, Chinese learners perceived their comprehension of EMI lectures as inadequate [33]. Huang [34] also demonstrated the association between learners' motivation, learning apprehension and learning achievement and showed that local Chinese learners tended to report more learning difficulties than foreign learners and, hence, experienced stress about content comprehension and peer competition. Therefore, mother-tongue medium instruction may be more helpful in understanding difficult concepts, and dual-medium teaching may be a more appropriate option [10].

At the tertiary level in Thailand, some studies have highlighted the factors influencing lecturers' and learners' perceptions of language beliefs and practices in EMI programs. Factors such as language competency, language anxiety, perceived advantages of English acquisition, identity concerns, and motivational and goal orientation have been recognized as significant influences on learners' perspectives [7]. Sameephet [20] recently conducted the inaugural significant qualitative case study in Thailand to explore university instructors' linguistic beliefs and their implementation in EMI courses. The university instructors disclosed that external variables (e.g., policy, classroom infrastructure, and students) and internal factors (e.g., the instructors' language preferences and proficiencies) were essential in shaping and informing their current language views and implementation. Furthermore, the instructors employed translanguaging or code-switching scaffolding when encountering dilemmas in EMI classrooms [20].

Previous studies have provided evidence that learners held positive attitudes towards the use of EMI in higher education because they believed EMI increased motivation, improved English language skills, prepared them for the global job market, improved their grades, attracted more international students to their university, and accelerated globalization in their country. Nevertheless, EMI was also associated with methodological and language-related challenges. There is also no standardized norm for EMI, especially in countries where the L1 maintained its dominance. In addition, the four English language skills can develop unequally, which might cause learning difficulties. The increasing population of international students could also lead to learning anxiety

in local learners. Finally, both lecturers' and learners' insufficient language skills and language proficiency might dampen the effectiveness of EMI programs.

3. Research Methods

3.1. Participants

All undergraduate students enrolled in three international programs at a government university in northeastern Thailand were invited to participate in the study. A total of 204 undergraduate learners (47 male and 157 female) voluntarily agreed to complete the survey questionnaire. As shown in **Figure 1**, the participants, who ranged from the first year (48 learners, 24%) to the fourth year (46 learners, 23%), were majoring in English for International Communication (EIC) (81 learners, 39.7%), International Tourism Management (ITM) (77 learners, 37.7%), and International Business (IB) (46 learners, 22.5%).

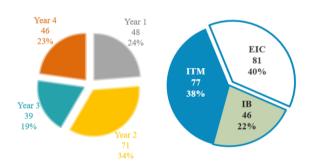


Figure 1. Distribution of the participants.

The participants were recruited through convenience sampling using existing enrolment lists from the university database. To ensure a diverse representation, Thai undergraduate learners who enrolled in international programs were randomly selected from different academic years. Additionally, for the interview phase, the Thai undergraduate learners who indicated their willingness to participate in the survey questionnaire were purposively selected based on their availability, time constraints, and readiness to share their perspectives on EMI in higher education.

3.2. Research Instruments

This research employed three data-gathering methods: lection. Next, the randomly selected lessons were observed a questionnaire, classroom observation and a semi-structured and video-recorded to examine EMI implementation during interview. The questionnaire sought to capture the respontant to the following week. Following the classroom observation,

dents' perspectives regarding the advantages and possible obstacles of implementing English as a Medium of Instruction (EMI) at a government university in the Northeast of Thailand. The questionnaire comprised three principal components. The initial section gathered demographic data (11 items), whereas the subsequent section comprised 30 items pertinent to the research issues. A Likert scale was employed, spanning from strongly agree to strongly disagree, with scores ranging from five to one. Two open-ended questions were included in the last part of the questionnaire to gain more personal opinions from the respondents. Three classrooms from three majors in the international program, which used EMI, were selected randomly and observed over one week to collect real-time data from realistic situations. The duration of each class was 180 minutes. Direct evidence was collected regarding what occurred in the classrooms, including the patterns and features of the instructor's pedagogical performances and classroom activities. Classes were video-recorded with the assistance of a Thai collaborator. Twelve interviewees were randomly chosen based on their major and grade level. The audio-recorded interview elicited in-depth responses from interviewees. Thai and English were used in the questionnaire and interview to eliminate language barriers.

3.3. Procedure

The validity of the content was judged by five experts with more than ten years of teaching experience in the field of linguistics. These experts estimated whether each item accurately measured the expected aspects using the Item Objective Congruence Index (IOC). Following the experts' appraisal of the questionnaire items, the questionnaire and interview were piloted with a small group of overseas learners who did not participate in the main research study to ensure that the respondents would not encounter difficulties during the main study. After obtaining permission from the university and its faculties, a consent form was distributed to all potential participants, inviting them to voluntarily take part in the study. Once informed consent was obtained, the questionnaire was administered electronically through JotForm and remained open for approximately one week for data collection. Next, the randomly selected lessons were observed and video-recorded to examine EMI implementation during

the audio-recorded interview was given to twelve interviewees individually to discuss their questionnaire answers and classroom performances in detail.

3.4. Data Analysis

The data were analyzed quantitatively and qualitatively. The quantitative analysis used descriptive statistics of the percentages (%), mean values, and standard deviations (SD) to present the study findings. The data obtained from the questionnaire were analyzed using the five-point Likert scale, and the mean scores on the Likert scale were calculated and interpreted using Likert's criteria [35]. The Statistical Packages in Social Sciences (SPSS) Version 25.0 and Microsoft Excel 2010 were used to quantitatively analyze the descriptive statistics of each question from the questionnaire. Additionally, qualitative data from the classroom observations and interviews were analyzed through transcription, coding, and thematic interpretation to identify patterns relevant to the research's purposes [34]. A deductive approach was employed, aligning the thematic analysis with the research focus on the attitudes, opportunities, and challenges of EMI. To ensure the trustworthiness and validity of the findings, both researchers independently coded the transcribed data. They engaged in thorough discussions to resolve discrepancies, ensuring theme identification consistency and accuracy. This rigorous analytical process strengthened the credibility of the qualitative findings and provided insights into participants' experiences.

4. Results

4.1. Quantitative Results

4.1.1. Learners' Attitudes towards English as a Medium of Instruction

Table 1 shows the overall results from the five-point Likert scale questions, indicating that learners' attitudes towards EMI were positive (mean = 3.93, which falls in the high agreement range of 3.51–4.50). Similarly, respondents agreed that using English as a medium of instruction provided them with opportunities (M = 4.16). Regarding challenges, it falls in the moderate range (2.51–3.50), suggesting a neutral level of perceived challenges of EMI. In sum, the outcome showed positive results (M = 3.69).

Table 1. Mean scores from the Likert scale items.

Category	Mean (%)	SD	Level
Attitudes	3.93 (78.6)	0.46	High
Opportunities	4.16 (83.2)	0.55	High
Challenges	2.98 (59.6)	0.74	Moderate
Total	3.69 (73.8)	0.48	High

Out of the ten items in the questionnaire, items 1, 3, 5, 6, and 7 were categorized as positive statements, whereas items 2, 4, 8, 9, and 10 were negative statements (marked by * in **Table 2**). The results revealed that respondents' attitudes towards EMI were positive (M = 3.93), which falls in the high range (3.51–4.50) and shows their high level of agreement with these items (78.6% in the overall mean).

As shown in **Table 2**, 92.65% (75.49% strongly agree and 17.16% agree) of the Thai learners would like to use English in their future careers (item 6), and 91.67% (50.98% strongly agree and 40.69% agree) enjoyed learning in the English language (item 1). This indicates that most participants were positive about using and learning English. Moreover, the mean scores for negatively worded items 8 & 10 were 4.00 (80.0%) and 4.48 (89.6%), respectively, which suggests that participants were interested in the activities provided by lecturers in EMI programs and they believed that EMI was necessary for their study.

4.1.2. Opportunities Offered by EMI

Respondents agreed (M = 4.16) that using English as a medium of instruction provided them with opportunities for language development and a future career in international programs. As shown in **Table 3**, the item related to the improvement of learners' English communication skills (item 11) received the highest mean score (M = 4.63), followed by item 20, which related to higher salary preparation (M = 4.45), and item 19 related to their future study abroad (M = 4.40). These results indicate that the participants believed EMI improved their language proficiency and future salary prospects and provided learning opportunities abroad.

4.1.3. Challenges Associated with EMI

The questionnaire included ten negatively worded statements (marked by * in **Table 4**) that addressed the challenges faced by Thai university learners when the instructors used EMI. Overall, the participants reported an average score of 59.6% in agreement with these statements, indicating a

Table 2. Learners' attitudes towards EMI.

Statements	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)	Mean (%)	SD	Level
1. I enjoy learning in the English language.	104 (50.98)	83 (40.69)	17 (8.33)	0 (0)	0 (0)	4.43 (88.6)	0.64	High
2. I feel stressed to learn subject content in English. *	10 (4.90)	42 (20.59)	83 (40.69)	46 (22.55)	23 (11.27)	3.15 (63.0)	1.03	Moderate
I feel comfortable learning with both English and Thai instruction.	93 (45.59)	58 (28.43)	50 (24.51)	2 (0.98)	1 (0.49)	4.18 (83.6)	0.87	High
4. It is difficult for me to follow my teachers. *	10 (4.90)	51 (25.00)	94 (46.08)	40 (19.61)	9 (4.41)	2.94 (58.8)	0.91	Moderate
I gain more respect by studying in English.	42 (20.59)	83 (40.69)	68 (33.33)	11 (5.39)	0 (0)	3.76 (75.2)	0.84	High
I'd like to use English in my future career.	154 (75.49)	35 (17.16)	15 (7.35)	0 (0)	0 (0)	4.68 (93.6)	0.61	Very high
7. Teachers' use of English to teach the subject content motivates me in my future career.	110 (53.92)	70 (34.31)	23 (11.27)	1 (0.49)	0 (0)	4.42 (88.4)	0.71	High
8. I lose interest in classroom activities that are conducted in English. *	4 (1.96)	20 (9.80)	31 (15.20)	67 (32.84)	82 (40.20)	4.00 (80.0)	1.06	Low
9. I am afraid to speak English in class. *	13 (6.37)	39 (19.12)	70 (34.31)	42 (20.59)	40 (19.61)	3.28 (65.6)	1.17	Moderate
10. I feel that using English to teach the subject content is not necessary. $\ensuremath{^*}$	1 (0.49)	9 (4.41)	13 (6.37)	50 (24.51)	131 (64.22)	4.48 (89.6)	0.84	Low
Overall						3.93 (78.6)	0.46	High

Table 3. Opportunities offered by EMI.

Statements	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)	Mean (%)	SD	Level
11. Teachers using English to teach the subject content helps improve my English communication skills.	140 (68.63)	53 (25.98)	10 (4.90)	1 (0.49)	0 (0)	4.63 (92.6)	0.60	Very high
12. Teachers using English to teach the subject content build my confidence in speaking English.	107 (52.45)	66 (32.35)	29 (14.22)	2 (0.98)	0 (0)	4.36 (87.2)	0.76	High
13. I feel more comfortable to read in English.	62 (30.39)	72 (35.29)	67 (32.84)	3 (1.47)	0 (0)	3.95 (79.0)	0.83	High
14. Teachers use English to teach the subject content to improve my English writing ability.	85 (41.67)	87 (42.65)	28 (13.73)	3 (1.47)	1 (0.49)	4.24 (84.8)	0.78	High
My listening ability improves by studying in English.	93 (45.59)	77 (37.75)	33 (16.18)	1 (0.49)	0 (0)	4.28 (85.6)	0.75	High
I can use English to make more foreign friends in class.	57 (27.94)	54 (26.47)	56 (27.45)	25 (12.25)	12 (5.88)	3.58 (71.6)	1.19	High
 Teachers who use English to teach the subject content prepare me for international journal publications. 	44 (21.57)	52 (25.49)	81 (39.71)	22 (10.78)	5 (2.45)	3.53 (70.6)	1.02	High
18. Teachers use English to teach the subject content prepares me for a more promising career.	84 (41.18)	84 (41.18)	34 (16.67)	2 (0.98)	0 (0)	4.23 (84.6)	0.76	High
19. Teachers use English to teach the subject content, which gives me a better chance to continue my studies overseas.	107 (52.45)	72 (35.29)	24 (11.76)	1 (0.49)	0 (0)	4.40 (88.0)	0.71	High
20. Teachers who use English to teach the subject content prepare me for a higher salary.	112 (54.90)	74 (36.27)	15 (7.35)	3 (1.47)	0 (0)	4.45 (89.0)	0.70	High
Overall						4.16 (83.2)	0.55	High

ble 4, many participants (81.37%) found it challenging to pay the higher tuition fees associated with EMI (M = 1.67). Furthermore, although over 30% of participants held neutral attitudes towards most of the challenges related to EMI

moderate level of agreement. As shown in item 30 in Ta- (except item 30), 56.37% disagreed that using English as a medium of instruction was distracting (item 29). These results suggest that participants felt comfortable with mixed instructions (English and Thai) in class, and the most pressing concern was related to economic burdens.

Table 4. Challenges associated with EMI.

Statements	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)	Mean (%)	SD	Level
21. Teachers who use English to teach the subject content hinder my understanding of the subject content. *	14 (6.86)	47 (23.04)	91 (44.61)	36 (17.65)	16 (7.84)	2.97 (59.4)	1.00	Moderate
22. Speaking with my poor accent in class is a challenge for me. *	9 (4.41)	28 (13.73)	65 (31.86)	56 (27.45)	46 (22.55)	3.50 (70.0)	1.12	Moderate
23. I am afraid to make grammatical mistakes. *	45 (22.06)	51 (25.00)	64 (31.37)	25 (12.25)	19 (9.31)	2.62 (52.4)	1.22	Moderate
24. I avoid expressing opinions in English in class. *	16 (7.84)	43 (21.08)	73 (35.78)	39 (19.12)	33 (16.18)	3.15 (63.0)	1.16	Moderate
25. I am afraid to verify my doubts in English in class. *	18 (8.82)	32 (15.69)	68 (33.33)	56 (27.45)	30 (14.71)	3.24 (64.8)	1.15	Moderate
26. It is difficult to participate in classroom discussions in English. *	16 (7.84)	44 (21.57)	82 (40.20)	38 (18.63)	24 (11.76)	3.05 (61.0)	1.09	Moderate
27. Doing the assignments in English is a challenge for me. *	12 (5.88)	20 (9.80)	99 (48.53)	38 (18.63)	35 (17.16)	3.31 (66.2)	1.06	Moderate
28. It takes me a longer time to read textbooks in English. *	31 (15.20)	52 (25.49)	82 (40.20)	28 (13.73)	11 (5.39)	2.69 (53.8)	1.06	Moderate
29. It is difficult for me to stay focused on the lesson when taught in English. *	5 (2.45)	17 (8.33)	67 (32.84)	69 (33.82)	46 (22.55)	3.66 (73.2)	1.00	Low
30. I have to pay higher tuition fees. *	124 (60.78)	42 (20.59)	24 (11.76)	10 (4.90)	4 (1.96)	1.67 (33.4)	1.00	High
Overall						2.98 (59.6)	0.74	Moderate

4.2. Qualitative Results

The qualitative data from the open-ended questions,

classroom observations and interviews were analyzed and coded into conceptual themes, as detailed in the following sections.

4.2.1. Learners' Attitudes towards English as a Medium of Instruction

The qualitative findings showed that Thai university participants had a positive attitude toward EMI. More specif-

ically, all participants reported that it was necessary to use English as a medium of instruction in higher education in Thailand. Participants also believed that EMI could improve their overall language proficiency. **Table 5** shows extracts from the semi-structured interviews.

Table 5. Qualitative analysis of learners' attitudes towards EMI.

Participant	Statements
Bonita	I love English. That's why I decided to study in the English program. It's useful and necessary.
Cream	Using English to learn subject contents is required nowadays. English can be noticed everywhere. It reveals that English is vital and needed, especially for our university learners.
Denis	I am really proud to learn the subject content in English. It is international.
John	English should be the medium of instruction in university courses, at least in some courses like international business and international tourism.
Lara	I've gained some new experience in using English by applying it to my subjects. For me, it's fun and challenging.
Mia	I think using English to learn university subjects is needed.
Myra	I like to study in the English language because learning in the English environment helps me improve my English skills.
Nam	We need to improve our English communication skills in our future careers. EMI can provide us with lots of opportunities to practice our general English proficiency because we use English in our everyday studies.
Patrick	Using English to teach subject content increased my exposure to the English language, which improved my English.
Peter	I agree with using English to teach subject content. You know, a university education is a powerful tool to strengthen one's ability to take lessons in English.
Toey	The generation is now much more used to English, academic study, job hunting, etc. Therefore, it shows that learning in English programs is required for our generation.
Wendy	Although I find it difficult to speak English fluently, I would like to attend courses that are conducted in English. Practice makes perfect. Listening to English daily in every class will improve my English. English is essential and useful for higher education.

4.2.2. Opportunities Offered by EMI

The participants perceived that EMI programs provided both personal and external opportunities. The unique opportunities of EMI could be categorized into three aspects: enhancing English competence, building self-confidence in using English, and preparing for a future career. The participants also identified external opportunities at the institutional level, including opportunities for EMI to attract international learners and send local learners abroad for study. **Table 6** illustrates some interview extracts related to the opportunities provided by EMI programs.

4.2.3. Challenges Associated with EMI

The qualitative analysis of challenges associated with EMI showed that participants perceived both individual and external challenges. The individual challenges resulted from the participants' qualities or abilities, including their beliefs that their English competence was inadequate. These linguistic challenges mainly manifested in a lack of technical vocabulary and confidence. Specifically, participants tended

to be more concerned about dealing with the difficult, field-specific vocabulary, which negatively affected their understanding of the lectures, as illustrated in **Table 7**. They also expressed that they hesitated to use English to communicate because of their insufficient spoken English proficiency. The external challenges related to the selection and management of lecturers (see **Table 7**). Thai university learners in this study questioned the qualifications of some teachers in EMI programs and expressed that some teachers had low English competence and ineffective teaching skills. In addition, they raised concerns about how the teaching materials, instructors and approaches could be better managed to generate more effective learning situations.

5. Discussion

5.1. Learners' Attitudes Towards EMI in Thai Universities

The quantitative data analysis showed that the participants held positive attitudes towards EMI. The majority of

Table 6. Qualitative analysis of the opportunities offered by EMI.

Participant	Statements
Bonita	It is practical to learn subject knowledge in English, and it benefits me with my language proficiency while learning the subjects.
Cream	I decided to study in this program mainly because I can go abroad to exchange scholarships in the third and fourth years. In addition, it will give me more competitiveness for job opportunities in English-speaking countries.
Denis	It makes me energetic and confident to use English to speak with my teachers and friends in and outside the classroom.
John	I have become more confident speaking English with my friends in daily life.
Lara	After two years of study, I was amazed by the improvement in my listening skills. Most of the time, I don't need to translate what I hear from English into Thai. This boosts my confidence a lot.
Mia	Since I learned all the subjects in Thai before I entered the university, it is a great opportunity for me to put the English language into practice in the English program.
Myra	English programs can provide opportunities to those who want to study in Thailand but cannot speak Thai. The university realized the importance of this English program. More and more international learners from China,
Nam	for example, study at our university. I believe that if our university keeps moving forward, there will be more international learners to come and study.
Patrick	Most of the technical terms in my field are from Western countries, so it is easier to learn them in English.
Peter	I think learning or studying in the English language is an efficient way to improve my English skills.
Toey	The greatest advantage of EMI is that my career prospects and employment opportunities can vastly increase. Learning theories derived from English-speaking countries in English is much easier than in Thai translation.
Wendy	Besides, learning in English will help me apply for exchange programs. I would experience advanced education in Western developed countries, which will also prepare me for admission to world-famous universities.

participants (91.67%) in the quantitative analysis strongly agreed that they enjoyed learning English. The qualitative data analysis also revealed a positive attitude towards the EMI program. These findings are consistent with previous studies showing that university learners' attitudes towards EMI were positive [1, 10, 12–14, 16, 17, 22]. The participants also noted that they wished to learn in English as they would likely need the English language in their future careers. Previous studies have also reported that EMI supported learners' future careers in the global market [10, 16].

Learners also noted that English was necessary to teach the subject content at higher education institutions in Thailand. The finding is consistent with previous studies that found that English was adopted as a medium of instruction at the university level to highlight the power of the language in academia and the internationalization policy ^[2, 22]. In addition, EMI is needed in some subjects due to the nature of the courses. Some courses are considered "international" (like tourism, business and international communication) and therefore should be taught in English. The following excerpts from the qualitative analysis illustrate the necessity of EMI for Thai university learners:

"English should be the medium of instruction in university courses, I mean, at least in some courses like international business, international tourism" (John).

"I agree with using English to teach subject contents. You know, in university education, it is a powerful tool to strengthen one's ability to take lessons in English" (Peter).

"I think using English to learn university subjects is needed" (Mia).

Another key positive attitude towards EMI is the learners' perception that it enhances their English language proficiency. By being immersed in an academic environment where English is the primary medium of instruction, students gain consistent exposure to the language, which helps them develop advanced language skills. This finding aligns with previous studies in EFL contexts, which have demonstrated that EMI plays a significant role in facilitating English language learning [14, 21, 22]. Additionally, participants in the EMI programs engaged with subject knowledge in English, which contributed to the development of their overall language proficiency. This exposure enabled them to enhance their English communication skills across four domains: speaking, listening, reading, and writing.

Table 7. Qualitative analysis of the challenges associated with EMI.

Participant	Statements
Bonita	Some words are very specific; they are not easy to understand and remember.
Cream	Sometimes, I cannot understand the jargon right away, and many specific words make it difficult for me to read. There are few classroom activities for us to practice our speaking and communication skills in class. Teachers
Denis	always follow the textbooks and seldom provide us with more opportunities to do pair work or group work. This situation becomes even worse when it comes to online teaching.
John	The words in the textbooks are too hard to understand. This new vocabulary has always been a problem for me to study.
Lara	We don't have native or foreign teachers/ friends, and we don't have a chance to use English outside of class. It is tough work to practice our spoken English skills.
Mia	Perhaps some of the subjects learned in English are not helpful. These subjects, such as laws, should not be taught in English, and they have a lot of specific vocabulary.
Myra	Teachers speak so fast it is difficult to catch up and understand.
Nam	It is quite hard to explain and complicated to understand the content knowledge.
Patrick	Lacking confidence is the main concern for me. I care too much about grammar because I fear making mistakes in English communication.
Peter	It takes me a lot of time to look up the dictionary for the meanings of the jargon and remember them. They are difficult to understand and affect my understanding of the content.
Toey	Some teachers are not capable of teaching in the English language. So, sometimes, they use Thai more than English in lectures.
Wendy	I am afraid of being teased by my friends when they point out my mistakes. I am also concerned about the stress of the words because I don't want my accent to be too Thai style. I envy the learners majoring in English for International Communication because they have a foreign teacher from India who can help them improve their spoken English.

"EMI can provide us lots of opportunities to practice our general English proficiency because we use English in everyday study" (Nam).

"Using English to teach subject content increased the exposure to the English language, which is good for my English improvement" (Patrick).

As previously demonstrated [15, 16], the current study found that EMI increased learning motivation. This is likely because EMI offered opportunities for learners to gain exposure to cross-cultural experiences, and learners could share different cultures, traditions, and languages with peers from various nations. Finally, the participants' interest in classroom activities for EMI programs also contributed to their positive attitudes towards EMI. This is partly because their learning motivation was increased, which, in turn, positively affected their evaluation of the classroom activities.

This study demonstrated that Thai undergraduate learners had affirmative and positive attitudes towards EMI. Participants enjoyed learning in the English language as well as the classroom activities provided in EMI programs. They

also expressed that EMI was necessary for higher education and stated that they would use English in their future careers.

5.2. Opportunities Offered by EMI

The current study revealed that EMI offered five crucial opportunities that could be divided into personal and external opportunities (**Figure 2**). The personal opportunities identified were language skills, self-confidence, and career prospects. In contrast, the external opportunities occurred at an institutional level, including attracting international learners and sending local learners abroad for study.

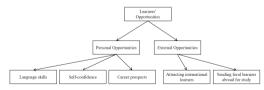


Figure 2. The identified opportunities offered by EMI.

The opportunity to improve linguistic competence in EMI programs is closely linked to students' engagement in extensive reading of English textbooks and supplementary learning materials provided by the lecturers, such as lecture notes, PowerPoint slides, and other instructional resources. EMI facilitates access to English-language textbooks and

academic materials, broadening students' exposure to international perspectives and fostering academic excellence. Moreover, the interactive nature of EMI classrooms promotes English communication skills through teacher-learner and peer interactions, particularly in speaking and listening. Writing assignments further develop students' academic writing abilities, reinforcing their ability to articulate complex ideas effectively in English.

Quantitative findings confirmed that participants strongly agreed that EMI improved their English communication skills across all four language domains: speaking, listening, writing, and reading. This is consistent with previous studies showing that EMI significantly improves learners' overall English abilities [14, 22, 23]. Notably, research has found that learners' receptive language skills, such as reading and listening, are positively correlated with improvements in their productive English competence [18]. However, some have reported that listening skills, rather than reading, showed the least improvement in EMI settings [12]. The following excerpts from the qualitative analysis further illustrate the participants' perspectives on how EMI contributed to their English language development:

"I think learning or studying in the English language is an efficient way to improve my English skills" (Peter).

"Since I learned all the subjects in Thai before I entered the university. It is a great opportunity for me to put the English language into practice in the English program" (Mia).

Another personal opportunity the participants identified was that EMI boosted their English proficiency [13]. EMI helped develop learners' confidence because they could complete their university subjects fully delivered in EMI. In addition, their communication skills were also facilitated by using English both in and outside the classroom, which also fostered their confidence in using English. The excerpts below support this claim:

"I have become more confident speaking with my friends in English in daily life" (John).

"It makes me energetic and confident to use

English to speak with my teachers and friends in and outside the classroom" (Denis).

"... This boosts my confidence a lot" (Lara)

EMI also helped reinforce participants' competitiveness in the job market. The quantitative and qualitative analysis results showed that EMI prepared Thai university learners for promising careers with higher salaries. Previous studies have also illustrated the gain in vocational benefits that EMI programs offer^[6, 10]. The following statement from a participant, Toey, supports this finding:

"Arguably, the greatest advantage of EMI is that my career prospects and employment opportunities can vastly increase."

As for external opportunities, the findings showed that EMI helped attract overseas learners to Thai institutions. Moreover, since EMI provided all courses in the English language, this would accommodate learners who wished to learn in English. A previous study also identified this institutional opportunity ^[2]. Thus, EMI can improve academic mobility by exchanging ideas and thoughts and encouraging better relations among learners of different nationalities. This is supported by the statements below:

"The university realized the importance of this English program. As a result, more and more international learners from China, for example, study in our university. I believe that if our university keeps moving forward, there will be more international learners to come and study" (Nam).

"English programs can provide opportunities to those who want to study in Thailand but cannot speak Thai" (Myra).

The other external opportunity perceived by Thai university learners was that EMI facilitated local learners to study abroad in partner universities. English has become the academic lingua franca of several university programs. Using EMI increased learner exchanges for better academic experiences and competency in the job market and promoted the university profile and the internationalization of higher

education. These findings align with a previous study in that learners identified one of the EMI opportunities was integrating into a global educational environment by participating in learner exchange programs and academic mobility ^[20]. The excerpts below illustrate this claim:

"... I can go abroad for exchanging with scholarships in the third and fourth year. It will provide me more competitiveness for the job opportunities in English-speaking countries in the future" (Cream).

"Learning in English will help me apply for exchange programs. Moreover, I would experience advanced education in Western developed countries, which would also prepare me for admission to world-famous universities" (Wendy).

To summarize, this study showed that Thai learners perceived both personal and external opportunities concerning the use of EMI in higher education. EMI facilitated learners' competence and competitiveness in their English language skills, self-confidence, and job prospects. Moreover, EMI helped Thai universities attract overseas learners and send local learners abroad, fostering academic mobility.

5.3. Challenges Associated with EMI

As shown in **Figure 3**, the participants noted several challenges arising from EMI, including their low English proficiency, higher tuition fees, and the selection and management of lecturers [1, 17, 36].

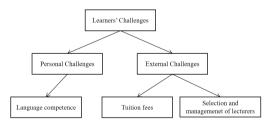


Figure 3. The identified challenges associated with EMI.

While learners showed neutral attitudes towards the challenges in the quantitative findings, the qualitative results revealed that their perceived low English proficiency confused and frustrated them in EMI classes. Indeed, the partici-

pants expressed that their weak English competence hindered their understanding of the subject content, which is defined as a "personal challenge" in the study. This caused them stress and hindered their participation in classroom discussions. The findings are congruent with former studies showing that insufficient language skills negatively affected the quality of subject learning in EMI programs [6, 10, 20, 23, 27–31]. The following excerpts highlight this challenge:

"It is quite hard to explain, and it is complicated to understand the content knowledge" (Nam).

"It takes me a lot of time to look up the dictionary for the meanings of the jargon and remember them. They are difficult to understand. They affect my understanding of the content" (Peter).

"The words in the textbooks are too hard to understand. This new vocabulary is always a problem for me to study" (John).

"Sometimes I am unable to understand the jargon right away, and there are a lot of specific words that make it difficult for me to read" (Cream).

Furthermore, the participants identified external challenges, including economic burdens resulting from the higher tuition fees and the ineffectiveness of courses conducted by "unqualified" lecturers. Indeed, the quantitative analysis showed that most participants (81.37%) reported that paying higher tuition fees in EMI programs was challenging. These fees are often higher than non-EMI programs as the lecturers typically have a higher level of education, and EMI programs require more extensive curriculum development. In addition, most Thai lecturers in the EMI programs considered in this study held doctoral degrees from English-speaking countries such as the UK, America, Canada, or Australia. Moreover, since English is used to teach specific knowledge, more effort is required to develop the courses to balance the content and language learning, necessitating greater financial and time investments than using Thai as a medium of instruction. Thus, the findings support a previous study showing that EMI might pose economic threats, such as increased tuition fees [20].

Thai university learners also had concerns about the qualification and management of lecturers in EMI programs. As shown in qualitative analysis, EMI lecturers had English competence. Still, they may lack the pedagogic ability to effectively teach the disciplinary content as they must modify their input according to the learner's language proficiency [1]. The lecture-based learning approach also resulted in a lack of interaction in class, a challenge that has been previously identified [27]. The institutions should launch detailed curricular advice, relevant support, and professional development programs for EMI lecturers, and learner-centered and activity-based teaching methods should be introduced to overcome these challenges. The excerpts below illustrate the external threats related to lecturers:

"Some teachers cannot teach in the English language. Sometimes they use Thai more than English in lectures" (Toey).

"There are few classroom activities where we can practice our speaking and communication skills. Teachers always follow the text-books and seldom give us more opportunities to do pair work or group work. This situation becomes even much worse regarding online teaching" (Denis).

"Teachers speak so fast, and it is difficult to catch up and understand" (Myra).

Overall, Thai university learners face several challenges in EMI programs. One of the most pressing obstacles is the language barrier, as many students struggle with limited English proficiency, making it difficult for them to comprehend lectures, complete assignments, and actively engage in classroom discussions. This language challenge not only affects students' academic performance but also limits their ability to fully benefit from EMI instruction. The present finding suggests that universities should offer pre-sessional English courses, ongoing language workshops, and integrate English for Academic Purposes (EAP) courses to address this. Bilingual and translanguaging scaffolding, such as lecture summaries and glossaries, can assist comprehension,

while peer-assisted learning fosters collaborative support. Additionally, the effectiveness of EMI programs is often undermined by lecturers who may lack sufficient English proficiency or appropriate pedagogical training, further complicating the teaching and learning process. Regarding this perspective, the study informs that universities should provide EMI-focused pedagogical training, language support programs, and peer mentoring initiatives. Team teaching with native and non-native English lecturers can further enhance instructional quality. Another critical challenge is the financial burden associated with EMI programs. Higher tuition fees place significant strain on students and their families, potentially limiting access to quality education and increasing financial stress. The economic pressure may lead some students to take on additional work responsibilities, which can negatively impact their academic performance. For this challenge, scholarships, tuition subsidies, and flexible payment plans would improve accessibility. Partnerships with private organizations for sponsorships and work-study opportunities would also reduce financial strain. In brief, the challenges highlighted in this study align with findings from previous research [6, 10, 20, 23, 27–31] in various EFL, non-native English-speaking contexts.

6. Conclusions

This study examined learners' attitudes in EMI programs toward EMI implementation in a Thai university context. Their attitudes towards this practice highlighted issues that should be considered during the teaching-learning process and could provide insights to improve the development of current EMI practices. Furthermore, understanding learners' attitudes towards this policy may facilitate any review process of this policy in the near future. Most importantly, investigating learners' attitudes towards using EMI highlighted some critical obstacles or issues that hindered learning in these programs, which could help inform and reshape current English teaching practices at the institution.

Overall, Thai university learners had a positive attitude towards EMI. Specifically, participants enjoyed learning the English language and the classroom activities provided in EMI programs. Furthermore, from their point of view, EMI was necessary for higher education to improve their future career prospects. Concerning the perceived opportunities,

Thai higher-education learners reported that EMI facilitated their overall competence in English language skills and improved their self-confidence and competitiveness in the job market. Moreover, EMI helped Thai universities attract overseas learners and send local learners abroad, increasing the mobility of learners and academic knowledge. On the other hand, the participants noted that the expensive tuition fees in EMI programs would increase the economic burden on the family. Moreover, a lack of English competence negatively affected the teaching and learning processes.

The results indicate that learners should improve their language proficiency to be more prepared for EMI programs. In addition, university administrators should make additional efforts to balance the content and language in EMI programs. For example, they should provide detailed curricular advice and professional development programs for EMI lecturers. Finally, lecturers in EMI programs should implement well-planned instructional approaches and varied instructional models to improve learning motivation and outcomes.

6.1. Limitations and Suggestions for Future Research

The current study investigated the attitudes, opportunities and challenges related to EMI, as reported by Thai learners in higher education. However, the limitations of the study should be acknowledged. First, data collection was collected online, which restricted the questionnaire's distribution and may have resulted in a low-than-expected response rate. Future studies should adopt multiple data collection methods to ensure broader participation across diverse learner groups and enhance the representativeness of the findings. Second, the study focused on learners from a single university, limiting the generalizability of the results. Future research should include multiple universities and a wider range of EMI programs across various disciplines. Doing so would provide a more comprehensive understanding of how EMI influences learners' language development, academic performance and overall learning experiences in different educational settings.

Additionally, the study did not include key individual differences, such as learners' English proficiency levels, prior exposure to EMI, and socioeconomic backgrounds, all of which may influence their attitudes and experiences. Future research should integrate these variables to offer a more nuanced analysis of EMI's effectiveness. Finally, a longitudinal study would provide deeper insights into the long-term effects of EMI, including its influence on students' linguistic competence, academic achievement, and career readiness. Incorporating longitudinal investigations and addressing these limitations in future research would contribute to the development of more inclusive and contextually relevant EMI policies and practices, enhancing the quality and accessibility of EMI in higher education.

6.2. Pedagogical Implications

The current study highlighted the benefits and challenges of EMI, emphasizing the need for policy reforms and support mechanisms to optimize the effectiveness of the EMI program. One key implication is the need to strengthen teacher education programs to ensure that discipline-specific lecturers are equipped with subject-matter expertise and effective EMI pedagogical strategies. EMI teacher training workshops and certification programs should focus on instructional methods enhancing content delivery and communication in English. Additionally, integrating subject-specific content into General English (GE) and English for Academic Purposes (EAP) courses can help students develop the academic vocabulary and language proficiency necessary for success in their study disciplines.

Regarding financial constraints, universities and policymakers should implement strategies such as scholarships, tuition adjustments and financial aid programs are needed to reduce economic burdens. Increasing funding opportunities through government support or industry partnerships can also make EMI programs more accessible. Moreover, universities should implement structured support systems, including EMI mentoring programs, peer-assisted learning initiatives, and tutorial sessions, to help students navigate linguistic and academic challenges. By implementing these changes and support mechanisms, universities can create a more inclusive and effective EMI environment, enhancing students' learning experiences, academic achievement, and future career prospects. Additional strategies to enhance EMI effectiveness may include introducing EMI teaching assistants, either language specialists or senior students proficient in English, who could provide extra support for both instructors and students. Universities should also establish EMI learning centers that offer language support, and academic coaching

can further facilitate student success. Moreover, fostering interactive and collaborative learning environments, such as peer-assistant groups and cross-disciplinary projects, can help students gain confidence in using English in academic and professional settings. By implementing these measures, universities can optimize EMI programs, improve student learning outcomes, and create a more inclusive and practical higher education experience.

Author Contributions

Conceptualization, A.S. and Y.J.; formal analysis, A.S. and Y.J.; data curation, A.S. and Y.J.; writing—original draft preparation, Y.J.; writing—review and editing, Y.J.; supervision, A.S.; project administration, A.S.; funding acquisition, Y.Y. All authors have read and agreed to the published version of the manuscript.

Funding

This research project was financially supported by Mahasarakham University, Thailand.

Institutional Review Board Statement

This research did not require IRB approval.

Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon request.

Acknowledgments

This research project was financially supported by Mahasarakham University, Thailand.

Conflicts of Interest

The authors declare no conflict of interest.

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