Research Article

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Navigating the Intersection of Teachers' Beliefs, Challenges, and Pedagogical Practices in EMI Contexts in Thailand

Abstract: The growing trend towards the internationalisation of education has prompted many institutions to adopt English as a Medium of Instruction (EMI) in their curricula and instruction. This study investigates the beliefs, challenges, and pedagogical practices of school teachers using EMI to teach various subjects in Thailand. Data were collected through interviews with 78 Thai content teachers across different disciplines. Content and thematic analysis revealed the complexity and diversity of EMI teachers' beliefs, which significantly influence their engagement with and implementation of EMI in their teaching practices. As these teachers attempted to translate their beliefs into practice, they encountered challenges such as limited English proficiency and difficulties in grasping subject-specific terminology, impacting students' understanding of the subject content. Effective strategies identified to address these challenges include scaffolding techniques, L1 use, code-switching, and translanguaging, albeit potentially conflicting with the goal of promoting English proficiency. The study argues that while the use of L1 and translanguaging may appear contradictory to EMI practices, it remains crucial for EMI implementation, particularly for teachers and students facing English proficiency challenges. The findings also indicate that EMI teachers possess adequate English language skills for effective EMI instruction, and collaboration among teachers, administrators, and practitioners is crucial.

Keywords: English as a medium of instruction, teacher beliefs, challenges, Thai teachers, pedagogical practices

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1 Introduction

English Medium Instruction (EMI) is increasingly used in schools worldwide to enhance students' language proficiency and academic knowledge (Lasagabaster, 2022; Macaro, 2018). EMI supports the internationalisation of education for both domestic and foreign students by integrating language skills with content knowledge (Wannagat, 2007). This approach fosters bilingualism, critical thinking, and cultural awareness, offering a competitive advantage in today's globalised world (Galloway, Kriukow, & Numajiri, 2017). Implementing EMI is believed to facilitate intercultural communication and enhance employability prospects (Lasagabaster, 2022; Macaro, 2018). Consequently, research on EMI has increased, examining its impact on educational policy and classroom practices (Alharbi, 2022; Coleman et al., 2023; Galloway & Rose, 2022; Galloway et al., 2017; Lasagabaster, 2022).

However, EMI presents challenges, particularly for students who are not proficient in English. One of the biggest challenges is ensuring that students understand both the language of instruction and the content. Previous research (e.g. Briggs, Dearden, & Macaro, 2018; Macaro, 2018) shows that EMI teachers struggle with language difficulties that hinder effective teaching. These challenges include explaining complex topics in a non-native language, ensuring comprehension of subject-specific terminology, and accurately assessing understanding. Many teachers find it difficult to effectively integrate subject content with language skills (Macaro, 2018). Additionally, there is often a lack of specialised training in EMI, with subject teachers not seeing it as their role to address students' language needs. This can result in students struggling to grasp the subject matter, which negatively impacts their academic performance and limits their success.

Teachers' beliefs have an influence on their teaching behaviour and ultimately student outcomes (Macaro, Curle, Pun, An, & Dearden, 2018). Wu, Wan, and Wong (2015) suggested that these beliefs shape classroom dynamics, affecting teachers' engagement and ability to respond to student challenges. Understanding these beliefs is crucial for overcoming

barriers to effective language teaching in subject-specific classrooms. However, research on teachers' beliefs about EMI across different subjects and contexts remains inconclusive. Many teachers support EMI for its potential to improve language skills and subject knowledge. Nonetheless, some studies (e.g. Dearden & Macaro, 2016) raise concerns about teachers' ability to teach effectively in English and the possible negative impact on students' understanding of complex topics. Addressing these issues is thus crucial to maximising the benefits of EMI and developing students' language proficiency and subject understanding.

Although much attention is given to teachers' English language skills, the need for EMI teachers to understand students' challenges is often overlooked (Bradford, 2018). Effective EMI teaching requires more than just language proficiency. Astiani and Widagsa (2021) argued that teachers need to design engaging lessons for complex topics in challenging language and assess progress in both language and content. By integrating language proficiency with effective pedagogy and awareness of students' difficulties, both language skills and subject understanding can be improved. To maximise the benefits of EMI, a comprehensive approach that incorporates strong language skills, sensitivity to student challenges, and effective instructional techniques is crucial.

Many educational institutions in Thailand have made significant efforts to improve students' English language skills by internationalising their curricula and promoting immersion programmes. Teachers use EMI to provide real-world learning experiences and equip students with the skills needed to succeed in a globalised society (Galloway & Ruegg, 2020). Consequently, Thai higher education aims to produce graduates who are able to compete in the ASEAN economic community and the international market (Bunwirat, 2017). EMI is therefore seen as a crucial mechanism to equip graduates with professional skills and English proficiency (Phantharakphong, Sudathip, & Tang, 2019). In STEM education, EMI is believed to promote critical thinking and problem-solving abilities, which are essential for understanding complex scientific concepts and fostering collaboration in pursuit of quality education (Phantharakphong et al., 2019). As a result, policy makers, researchers, and teachers in Thailand are actively developing EMI to integrate language and content learning, with English as a global language at the forefront (Yuan, Chen, & Peng, 2020).

Understanding teachers' perceptions, challenges, and strategies in implementing EMI is crucial for its successful implementation. Given the importance of EMI and the role of teachers' beliefs in shaping its effectiveness, these insights are essential for informing policy design and the development of teaching programmes that help future EMI teachers achieve the instructional outcomes. While much of the existing EMI research has been conducted in European contexts, some empirical research has also been conducted in different Asian contexts (Coleman et al., 2023; Hu & McKay, 2012; Stigger, Wang, Laurence, & Bordilovskaya, 2018). The present study contributes to filling this gap by focusing on the Thai context, where EMI is relatively new. It aims to investigate Thai EMI teachers' views on the approach, the challenges they encounter during its implementation, and the techniques they use to overcome these obstacles. Specifically, the study seeks to answer the following questions:

1. What do teachers believe about implementing and practicing the EMI approach?
2. What challenges do EMI teachers in secondary schools face when teaching content in English?
3. What strategies do they use to overcome these challenges?

2 Literature Review

2.1 EMI as an Emerging Approach

Many educational institutions have radically revised their language teaching goals to equip linguistically diverse students with the knowledge and skills needed to navigate an increasingly global community. This shift is driven by students' desire to acquire "content" rather than just "language learning" (Walkinshaw, Fenton-Smith, & Humphreys, 2017). Some approaches that describe this phenomenon include Content-Based Instruction (CBI), Content and Language Integrated Learning (CLIL), English as a Medium of Instruction (EMI), and Integrating content and language in higher education (ICLHE). Each term represents a significant change in the way English and other subjects are taught.

Macaro et al. (2018) defined EMI as the use of English to teach academic subjects in countries where English is not the native language. Similarly, Breeze and Roothooft (2021) described EMI as the instruction of a specific subject in non-native English regions, with English serving as the medium of communication and without any predetermined language learning objective. Students in EMI classrooms are exposed to English in authentic situations and use the language meaningfully for real interactions, which helps them build confidence in using the language for academic tasks (Xie & Curle, 2022). This notion of authenticity is in line with Pinner (2012) and Tomlinson (2011), who discussed the role of authentic materials, asserting that

authentic learning involves interaction not only with peers and teachers but also with the materials themselves, and thus the emphasis is on practical application of content knowledge and the target language. Presenting authentic materials should be well-planned and carried out in collaboration between content teachers and language teachers. Consequently, both students and EMI teachers are expected to have a high level of fluency and subject understanding (Qiu & Fang, 2022; Zhang, 2018).

In contrast, CBI and Content-Based Language Teaching (CBLT), which are widespread in North America, emphasise language acquisition through the use of real, content-specific materials. Likewise, the European version of CLIL has a dual focus on language and content learning. In CLIL and ICLHE programmes, explicit language and content learning objectives are often established, in addition to the required language outcomes at the end of the programme. In contrast to CLIL, most EMI programmes lack clear language learning objectives. Students often enrol in EMI programmes to improve their English language skills (Galloway & Ruegg, 2020). This emphasises that the objectives and assessment methods of teaching and learning in EMI are basically different from actual language learning classes. Furthermore, EMI is increasingly being incorporated into the language policies of a growing number of schools and universities worldwide. Even in monolingual environments, where English is usually considered a foreign language, this trend is motivated by the goal of improving students' employability and international competitiveness (Dafouz & Camacho-Miñano, 2016).

EMI has seen exponential growth, especially in countries where English is taught as a foreign language, including Thailand (Dearden & Macaro, 2016). Driven by globalisation, Thai universities, high schools, and primary schools are increasingly adopting EMI, notably through international programmes. In Thailand, EMI involves using English both as a subject and as the primary medium of instruction for certain courses. This trend is particularly pronounced in the rise of STEM (science, technology, engineering, and mathematics) programmes taught in English. These programmes use hands-on learning to enhance students' creativity, problem-solving skills, and critical thinking (Hebebci & Usta, 2022). Such integration better equips students for the competitive environment of the ASEAN Economic Community and the global labour market (Bunwirat, 2017). In this regard, tertiary institutions can offer pre-sessional English programmes that adopt a CLIL approach to support language preparation and development. However, such forms of language preparation at the school level are rather limited in Thailand (Prabjandee & Nilpirom, 2022).

A number of potential benefits of EMI programmes have been reported. For example, Haider (2017) stated that the use of EMI is based on the idea that teaching key topics in English improves students' language skills and thus their chances of social advancement. By immersing students in English, EMI enhances practical language development and promotes active participation in complex discussions, thereby fostering critical thinking skills (Hu & Wang, 2023; Macaro, 2018). This approach not only strengthens verbal and cognitive abilities but also equips students with the skills needed to succeed in a globally connected environment (Bolton, Hill, Bacon-Shone, & Peyronnin, 2023; Dearden & Macaro, 2016; Galloway & Rose, 2022; Rose, Curle, Aizawa, & Thompson, 2020).

2.2 Challenges and Beliefs in EMI Implementation

While EMI is generally considered beneficial for L2 achievement (e.g. Bolton et al., 2023; Hu & Wang, 2023; Macaro, 2018), several researchers (e.g. Curle, Yuksel, Soruç, & Altay, 2020) argue that EMI instruction may fail to achieve the dual goal of developing both content knowledge and English proficiency. Students often struggle to understand subject-specific terminology and use academic English (Galloway et al., 2017; Kuteeva & Airey, 2014), which can negatively impact their learning success. Additionally, many students enter EMI courses with limited English proficiency (Aizawa & Rose, 2020; Curle et al., 2020), and their progress is further hindered by insufficient academic and language support during their studies.

Previous research (e.g. Briggs et al., 2018; Guarda & Helm, 2017) has shown that EMI teachers often encounter language barriers, such as pronunciation issues and accents influenced by their native languages, which can hinder teaching effectiveness (Aizawa & Rose, 2020). Challenges such as limited English proficiency and inadequate EMI training (Guarda & Helm, 2017) put additional pressure on students to understand and engage with lessons, affecting their understanding of the content. Teachers also struggle with selecting appropriate teaching methods, emphasising the need for EMI training that integrates both language skills and pedagogical strategies. Some educators believe that it is not their job to address students' language needs, resulting in inadequate language support (Macaro, 2018). Macaro (2018) also identified issues in the implementation of EMI, such as inappropriate teaching strategies, insufficient interaction between teachers and students, and a lack of focus on linguistic needs.

In addition, it is often difficult for teachers to access suitable teaching resources in English, which further hinders students' ability to grasp the subject matter and improve their language proficiency.

Teachers' beliefs and teaching practices have a significant impact on the effectiveness of EMI (Macaro et al., 2018). For example, Tung, Lam, and Tsang (1997) conducted a comprehensive survey examining the views of language and subject teachers on the EMI implementation in secondary schools in Hong Kong. The survey found that many teachers considered English to be less pedagogically beneficial than teaching in students' and teachers' mother tongues. In contrast, students' parents believe that the use of English is useful for practical purposes such as career advancement. This discrepancy highlights the importance of understanding teachers' views, which may differ from those of other stakeholders. Therefore, it is essential to take teachers' concerns into account when developing and implementing EMI policies.

However, numerous studies yielded contradictory conclusions regarding teachers' views on EMI. Macaro (2018), for example, pinpoints that many teachers support integrating EMI into their teaching, claiming that it simultaneously improves language skills and content knowledge; others argue that EMI fails to adequately develop both content knowledge and language skills. In addition, teachers often do not consider students' preferences and strategies when designing and delivering lectures (Hu, Li, & Lei, 2014). Pun and Gao (2024) also argued that teachers' understanding and management of their thinking affect the quality of pedagogical practices.

Teachers' beliefs about English and EMI in the classroom are complex, influenced by their backgrounds, sociocultural circumstances, and professional experiences (Borg, 2015). Astiani and Widagsa (2021) found that STEM teachers in Indonesia viewed EMI as beneficial to their professional development, instructional methods, and perceptions of future education. Similarly, Yuan et al. (2020) found that teachers had different attitudes towards the role of English, the EMI approach, curricula, and EMI policies. Some strongly supported academic advancement, while others were concerned about its potential to marginalise local languages and pedagogies. Despite these underlying beliefs, many teachers faced challenges in translating their ideals into practice due to limited professional expertise and restrictive institutional policies. Borg (2015) also acknowledged that a mismatch between teachers' beliefs and their practices could negatively impact teaching and professional development. Such discrepancies may arise from contextual constraints, such as a rigorous curriculum, an exam-oriented system, and limited institutional support

(Bai, Wang, & Chai, 2019). These tensions resonate with findings from other Asian countries. In Japan, for example, the implementation of EMI is often driven by top-down internationalisation policies that overlook teachers' voices and classroom realities (Edwards & Ashida, 2021; Takagi, 2015; Yonezawa, 2011). That is, Japanese teachers support the internationalisation goals, but report discomfort with English-only instruction, concerns about academic rigor, student comprehension, and limited language proficiency. These findings are similar to those in Thailand and Malaysia, where EMI programmes are introduced in the name of global competitiveness, but they are often constrained by exam-focused systems, ambiguous institutional policies, and insufficient language support. All in all, this highlights the importance of context-sensitive, teacher-informed EMI policies that take into account on-the-ground realities and support pedagogical innovation and language development.

2.3 Strategies for Dealing with the Challenges in EMI

Scholars and researchers have conducted surveys and interviews with EMI students and teachers to identify effective teaching methods. For example, Qiu and Fang (2022) investigated the opinions of 101 Chinese students and found that they preferred interactive teaching methods that incorporate various activities and communication techniques while focusing on the subject matter. Similarly, Zhang (2018) discovered that international students preferred learner-centred, interactive approaches that include innovative teaching techniques, meaningful in-class activities, and hands-on support. Moreover, EMI lecturers emphasise the importance of English proficiency for teaching complementary concepts and report using strategies such as code-switching and rephrasing to avoid confusion and facilitate knowledge transfer (Jiang, Zhang, & May, 2019).

Effective EMI teaching requires a wide range of pedagogical skills and strategies. Yuan et al. (2020) suggest that the use of real-world examples and case studies helps students to connect theoretical concepts with practical applications through various teaching techniques. Macaro and Han (2020) emphasise that EMI teachers must have subject-specific knowledge and adapt their language to the students' needs. Translanguaging has been shown to be a powerful tool for enhancing content comprehension and meaning-making that promotes active engagement in cognitive and emotional learning (Itoi & Mizukura, 2024; Williams, 2023). This is congruent with the findings of Doiz, Lasagabaster, and Sierra (2013) and Lasagabaster (2013),

who argued that students' L1 can serve as an instrument of disambiguation to help students understand complex ideas and concepts. It is also beneficial for language scaffolding and content understanding. Soruc and Griffiths (2018) suggest that EMI students can overcome speaking and listening challenges through cognitive and metacognitive strategies such as visualisation and questioning. In addition, teachers should use various communication methods, including discourse acts and language, to familiarise students with certain ways of thinking, cultural expectations, and values (Richards & Pun, 2021).

3 Language Policies and EMI Implementation

The implementation of EMI is influenced by policies at different levels of governance, including national ministries (macro level), school leadership (meso level), and classroom practise (micro level). At the macro level, the Ministry of Education in many Asian countries has promoted EMI as part of internalisation and modernisation strategies. English is seen as a gateway to global participation and national educational standards. However, Tollefson and Tsui (2014) argued that such language policies often function as a tool of gatekeeping and reinforce unequal access to education, especially when non-elite or linguistically diverse student groups are not insufficiently supported.

In the Japanese context, for example, according to Takagi (2015), EMI is driven by national policy reforms as top-down initiatives. The policy focused on measurable outcomes such as the number of EMI programmes and the number of international students. These policies reflect global aspirations but often do not address the readiness of faculty or the pedagogical realities of EMI. This leads to inconsistent pedagogical practices, lack of training or language skills required to teach effectively in English.

At the meso level, school management plays a pivotal role in interpreting and implementing EMI policies. Sah (2024) found that school leaders often reinforce dominant language ideologies that associate English with social prestige. In these settings, EMI is often implemented as a symbolic gesture to showcase modernity and policy compliance, rather than a transformative educational reform. As a result, school leadership may focus on the visibility of English use while overlooking the actual pedagogical support needed for meaningful learning. This is consistent with Sah (2025), who introduced the concept of "the politics of distraction" in EMI policy to comment on this dynamic. Sah (2024) argued that EMI policies are often framed through depoliticised, technical discourses that emphasise global competitiveness while distracting from systemic issues such as teacher workload, inequality in school funding, and policy incoherence. This framing obscures the realities faced by teachers who have to teach English through limited training, resources, and policy clarity. These studies demonstrate that while EMI is often positioned as a symbol of progress, its success depends on adequate training, institutional support, and flexibility for local adaptation.

From the studies reviewed above, most studies have focused on the teaching practices and challenges faced by students in a university setting. While some research (e.g. Meenasantirak & Chaiyasuk, 2024; Taylor, Tubpum, & Burford, 2022; Tipprachaban, 2022) has examined EMI in Thailand, it often focuses on classroom practices and challenges from Thai students' perspectives. Research on teachers' expectations, challenges, and strategies for coping with these challenges in early grade levels is limited (Alhourani, 2021). Understanding EMI teachers' beliefs, challenges, and coping strategies in the Thai context is crucial for improving the implementation of EMI, as their pedagogical and professional competence greatly impacts the effectiveness of EMI instruction in Thailand.

4 The Study

The present study used a qualitative research design, specifically a multiple case study approach, to gain comprehensive insights into EMI teachers' perspectives on their beliefs regarding EMI implementation, the difficulties they encounter, and the strategies they consider effective in overcoming these challenges. Semi-structured interviews were used as the primary data collection method, allowing for both consistency in questioning and flexibility to explore emerging themes in greater depth within the case under investigation (Lewis-Beck, Bryman, & Futing Liao, 2004). This approach enabled the researcher to capture rich, context-specific narratives from participants, shedding light on their teaching experiences in different educational settings.

4.1 Setting and Participants

This study was carried out at three public schools in Bangkok, Thailand, which cater to students from Grades 1 through 12. At the time of the research, none of the participating teachers had prior EMI teaching experience. However, these schools actively supported the EMI approach and assessment through school policies and provided resources to help teachers

overcome potential barriers and enhance the delivery of EMI in their classrooms. Prior to the study, all teachers participating in this study had completed a ten-week EMI training programme run by a university. This training programme focused on improving English language proficiency, familiarising them with EMI theory and practice, and teaching methods typically used in EMI classrooms (Table 1). Convenience sampling was used to select volunteers for this study. The criteria for participant selection included having at least one year of teaching experience, participation in the EMI training programme, and a willingness to discuss their experiences as EMI teachers. A total of 78 EMI teachers from three schools participated in the study (24 men and 54 women), representing various English proficiency levels, teaching backgrounds, and subjects taught, including science (21), mathematics (18), engineering and technology (21), English (3), social science (12), and physical education (3). All teachers held at least a bachelor's degree in their respective subject and had teaching experience ranging from 1.5 to over 20 years. None of them used English as their first language; their mother tongue was Thai.

5 Research Instruments

Before data collection began, all teachers were informed of the objectives of the study. It was emphasised that their responses would remain confidential and would have no impact on their professional careers. Each teacher willingly signed a consent form and was assigned a unique number to ensure anonymity.

Semi-structured interviews were conducted to collect qualitative data, focusing on teachers' beliefs about the EMI approach, the challenges they faced during implementation, and strategies used to overcome these challenges. This method encouraged active listening and allowed teachers to share personal experiences, providing in-depth insights into their perspectives on EMI. The open-ended nature of the interviews also facilitated the emergence of new ideas and reflections during the discussions.

5.1 Data Collection

The interviews, conducted in Thai, involved 78 teachers, grouped according to their professional backgrounds and teaching profiles. Convenience sampling was employed to select the participants based on accessibility and availability of participants, yielding optimal results for the study.

To maintain confidentiality, each educator was assigned a code (T1–T78). The participants included 25 senior teachers, 12 heads of department, and 41 subject teachers. The interviews were guided by the research questions focused on major themes, including beliefs about EMI

Table 1: Overview of the 10-week EMI training programme

Week	Topics	Objectives
1	Introduction to EMI: Principles and policy context	To familiarise teachers with the goals and rationale of EMI in the global and Thai contexts; to explore national policies and institutional expectations
2	Improving English skills for EMI teaching (I)	To enhance teachers' spoken English skills for classroom interaction, explanation, and questioning techniques
3	Improving English proficiency for EMI teaching (II)	To develop academic English for teaching, including vocabulary, pronunciation, and clarity in lesson delivery
4	Understanding EMI learners and classroom dynamics	To explore learners' needs, motivation, and cultural considerations in the EMI context; to examine classroom interaction patterns
5	EMI pedagogical strategies and scaffolding techniques	To introduce content-specific teaching strategies; to practice scaffolding techniques to support content and language integration
6	Using L1 and translanguaging in EMI classrooms	To understand the role of L1 and translanguaging in content comprehension; to discuss effective, context-sensitive code-switching strategies.
7	Developing and adapting EMI teaching materials	To guide teachers in selecting, simplifying and designing materials suitable for EMI contexts; to adapt existing resources for English-medium use
8	Assessment in EMI: Language-aware content evaluation	To develop assessments that fairly evaluate both content knowledge and language use; to address challenges of assessment in EMI
9	Technology integration and EMI classroom management	To introduce digital tools for EMI teaching; to manage classroom interaction and support learner engagement using technology
10	Microteaching, peer feedback, and reflective practice	To conduct microteaching sessions with peer observation; to promote reflective practices to improve EMI teaching

implementation, challenging factors in EMI, teaching styles and practices used in EMI classrooms, and possible strategies to overcome these challenges. Each interview lasted about 30 min and was audio-recorded. Following the interviews, I translated and transcribed the data. Transcripts were returned to the informants for verification, increasing the trustworthiness of the responses.

5.2 Data Analysis

The data collected from the interviews were transcribed verbatim and analysed thematically and inductively to gain a deeper understanding of the perspectives analysed. An open coding technique was employed, where the data were thoroughly read, and themes were identified and labelled. To this end, I first familiarised myself with the dataset by repeatedly reading the interview transcripts and taking analytical notes as necessary. The transcripts were then systematically categorised into themes that served as research findings. In this process, I used both literature-based deductive codes (Bingham & Witkowsky, 2022) to create specific categories such as challenges, teaching practices, and strategies, and inductive codes to identify emerging themes within these categories. Finally, I reviewed, defined, refined, and labelled the themes and prepared the report to explore the teachers' beliefs, the obstacles they faced, the teaching practices they employed, and the strategies they used to overcome the challenges of EMI implementation.

To ensure the reliability and accuracy of the results, the researcher distributed the transcriptions and identified themes to five interview participants who reviewed and provided feedback on the translated transcripts and preliminary codes. Additionally, a second coder reviewed a sample of the coded interview transcripts to ensure inter-rater reliability. Inter-rater agreement in coding was calculated using a simple percentage, where the number of coding matches was divided by the number of coding schemes, multiplied by 100. This calculation resulted in inter-rater reliability percentages of 86% and 89% for the interview transcripts, respectively. These percentages can be considered "good" for simple percentage agreement (Gisev, Bell, & Chen, 2013).

6 Findings

This section addresses the key themes from the qualitative analysis, including beliefs in the impact of EMI on content teaching, challenges the teachers faced when delivering EMI lessons, and teaching strategies and techniques they used to deal with these challenges. All quotations from the interview data are direct translations from the original.

6.1 Teachers' Beliefs about the EMI Implementation

With regard to teachers' beliefs and attitudes about the EMI implementation, the informants generally perceived EMI as a beneficial approach for their students. They revealed that adopting EMI in the classroom could improve students' language skills along with their learning of subject content. Moreover, students have more chances to be exposed to English and are encouraged to speak English. When asked, *"What do you think about EMI approach and implementation?"* The responses below reflect this as follows:

(1) *"I think EMI is a good approach to improve both language proficiency and subject knowledge. It challenges both teachers and students to think critically and communicate effectively in English, which is essential for success in today's world."* [T3]

(2) *"Teaching in English in EMI classes can help students improve their English skills. My students can have an opportunity to speak in English more with their peers and me as a teacher."* [T19]

(3) *"Using English all the time in the EMI classroom can be beneficial for students as it gives them the opportunity to practise and improve their language skills. It can help them become more confident and secure in with English in an academic environment. We (teachers) find it easy to explain complex concepts and terminology."* [T25]

With the same question, some teachers believed that the EMI approach allowed students to learn more about content from a wider range of sources that really correspond to the learning objectives. They noted that this approach enhanced students' learning process and better prepared them for future academic and professional opportunities in a globalised world.

(4) *"I believe that EMI can create a more immersive learning environment that encourages students to engage more deeply with the material I have prepared. This can lead to better retention and understanding of the information in English."* [T18]

(5) *"I am sure that teaching in English prepares students for globalisation. For example, if they want to be scientists in the future, they can at least read texts to get complex information in English effectively and maybe compete with other researchers from all over the world."* [T42]

The above excerpts illustrate that the informants view EMI as a valuable tool for enhancing language skills and creating an immersive learning experience. They believe that EMI can boost students' confidence in using English in the academic environment and support better retention of subject content. Overall, EMI is seen as a means of helping students develop a deeper understanding of the subject matter by making it more engaging and interactive.

6.2 Teachers' EMI Teaching Expectations

In terms of teaching expectations, most teachers expected that the EMI programme would increase students' confidence in using English and deepen their understanding of the subject content. They hoped that the approach would improve overall English language proficiency by providing students with a conducive environment in which they could practise and improve their language skills through real-life interactions. Some informants also expected that EMI would help students develop critical thinking and improve their academic performance. In addition, they expected that students would engage in English communication with teachers and peers both inside and outside the classroom to further improve their language proficiency and communication skills. When asked what they hoped to gain from the implementation of EMI, three teachers emphasised the benefits for content and English language learning, underlining their aim to improve students' English language skills.

(6) *"My expectation toward the use of EMI in my teaching is that it will not only improve students' language skills, but also foster critical thinking and enhance academic performance. I also hope that students will have ample opportunities for English interactions both in and out of the classroom to further develop their communication skills."* [T51]

(7) *"I am quite sure that if we (both teachers and students) speak English only during class time, it will create a more immersive learning environment that will greatly benefit everyone involved."* [T15]

(8) *"In my class, I try to create an atmosphere where students feel comfortable expressing themselves in English, encouraging them to practice their language skills without fear of making mistakes. By incorporating group discussions and presentations into my lessons, I aim to provide students with opportunities to engage in meaningful English conversations and improve their overall proficiency."* [T29]

In addition, two informants asserted that the EMI approach would help create a real international classroom because one of their classes included an international student from an exchange programme. Their responses highlighted that using English in class would bring their students from diverse cultural backgrounds together, allowing for rich and dynamic classroom interactions. The responses from the two informants are shown as follows:

(9) *It is so impressive when I see my students, even though they are not all, trying to speak English with an international student from an exchange programme. I think it's not just about using English for communication or talking about the subject matter. It not only does it improve their language skills, but it also promotes cultural exchange and understanding. The EMI approach really promotes a global learning environment that benefits all students involved"* [T41]

(10) *"Well, in my class as well. When I see my students discuss with their peers or do activities, I see how language can truly be a bridge between different cultures and create a sense of unity among students when they help solve problems. It's a powerful tool that goes beyond just academics."* [T56]

These excerpts indicate that Thai EMI teachers expected the programme to improve students' English skills and created a dynamic and immersive learning experience that would benefit students academically and personally. While the primary goal is to enhance language proficiency and academic success, EMI also goes far beyond just language development, fostering a sense of community and intercultural understanding among students from diverse backgrounds. These responses highlight the idea that EMI can serve as a platform for cultural exchange and collaboration, enriching the overall educational experience.

6.3 Teachers' Challenges in the EMI Implementation

Even though most of the teachers in the interviews expressed positive beliefs and feedback about the benefits of EMI, when putting their beliefs into teaching practices, they also reported that some faced language-related challenges such as using English to explain complex concepts and terminologies and adapting their teaching materials and methods to suit the language needs of all students. Additionally, some teachers found it difficult to strike a balance between focusing on language development and covering the required academic content. In short, these

challenges can be broadly classified into two main types: linguistic and pedagogical.

When asked to give some potential challenges they faced when delivering lessons in English and using the EMI approach in their content classrooms, most of the informants stated that the biggest challenge was related to their own proficiency in English. A lack of language proficiency was reported to have some negative consequences on teachers' confidence in delivering the subject content, making them feel less confident when teaching in English. This is illustrated in the following excerpts:

(11) *"For me, I have some difficulties when I have to explain some concepts and new terminology in English. I am responsible for the technology subject, and it has a lot of terminologies that are not commonly used in everyday conversation. Also, some students struggle to grasp these technical terms, which adds an extra layer of complexity to my teaching approach."* [T19]

(12) *"Some of my students are proficient in English because they are used to studying in an international programme. I am sometimes not confident in speaking English, and I have to prepare myself a lot when it comes to explaining complex technical terms. I also try to improve my own understanding of the subject matter so that I can effectively convey the information to my students."* [T31]

(13) *"Most of the time I know that my English speaking is not grammatically correct, but I think it is fine. This is the fact that I consider myself as a content teacher and therefore I am not responsible for the handling of the language issues in the classroom. I am rather concerned with the subject content."* [T59]

These responses suggest that implementing EMI has potential linguistic challenges for teachers, and thus highlight the importance of more sustained EMI teacher training to address such language-related challenges. In addition, unsurprisingly, teachers' limited English proficiency can impact the level of students' understanding of the subject content. When asked, *"Do you have any problem with EMI teaching and what do you do when you have those problems?",* three content teachers shared the following ideas: trying to resort to other pedagogical strategies, referring to supplementary resources, and scaffolding techniques to illustrate the discipline-specific concepts and clarify some chunks of their lectures and lessons, as shown in these excerpts.

(14) *"It is OK to speak and teach in English. However, I sometimes have a feeling that my students may not fully understand the material due to language barriers. I am constantly seeking new strategies to ensure effective communication and comprehension in my classroom."* [T37]

(15) *"Some of my students cannot follow my teaching in English. Therefore, I provide additional resources such as visual aids, simplified explanations, and extra practice exercises to help them better understand the concepts. Besides, I encourage students to ask questions and seek clarification whenever they are unsure about something."* [T63]

(16) *"I have a feeling that sometimes in my class, I spend a lot of time explaining concepts multiple times to ensure everyone grasps the material. To address this, I also offer one-on-one tutoring sessions for students who need extra help outside of class time. In fact, I am thinking that I cannot keep a balance between focusing on the content to be taught and language...."* [T65]

These findings corroborate previous research (e.g. Hu et al., 2014) regarding the potential pedagogical consequences that students may face if language comprehension is not sufficiently promoted alongside content understanding. This emphasises the importance of incorporating language support strategies into classroom practice to ensure that all students develop their learning and have an equal opportunity to succeed in the classroom (e.g. Macaro, 2018; 2020). The above excerpts [14], [15], and [16] also illustrate that, in addition to using English in the classroom and teaching subject content, it can be beneficial for teachers to provide additional support and resources for students who may struggle with language barriers. Such support helps ensure that all students are able to fully understand and engage with the subject matter.

6.4 Strategies Used to Cope With EMI Challenges

The interview results are further evidence of instructional strategies and techniques used in EMI classrooms to deal with challenges. As shown earlier, some teachers translated English words into Thai, especially subject-specific terminologies and technical words that students were struggling to understand. The interviews revealed that a majority of the informants adapted their teaching techniques by incorporating real-world examples and using case studies to enhance comprehension. As three of the teachers stated:

(17) *"When I do my teaching plan, I try to incorporate different teaching methods and activities to cater to the diverse learning styles of my students. This helps in*

ensuring that all students are able to grasp the content effectively." [T29]

(18) "*I strive to <u>make my classroom atmosphere as fun and lively as possible</u>. I believe this approach engages students and reinforces the key concepts being taught. It creates a more dynamic and interactive learning environment that encourages student participation and understanding.*" [T37]

(19) "*I like my students to <u>learn from hands-on experience</u>. I often ask them to do experiments by themselves so that they can see the practical application of the concepts being taught.*" I also <u>use case study techniques</u>, asking them to solve problems." [T38]

As mentioned earlier, some teachers reported using code switching and incorporating the L1 to explain the difficult content covered in the lessons. In this regard, two teachers expressed a somewhat negative view of this coping strategy. When asked, "*What are the challenges you had in the classroom when using English in your teaching, and how did you cope with those challenges?*", two teachers gave the following representative responses:

(20) "*I feel the benefits of EMI are important, and its disadvantages are rather apparent. For example, in my class, many students cannot understand the lessons in the beginning, and <u>I often resort to Thai to help them better understand my teaching</u>.*" [T46]

(21) "*I know that using English in class at all times is good as it is the goal of the EMI approach. However, I always <u>switch my teaching language to Thai</u> because I am not sure if my students understand what I am trying to communicate with them. <u>I don't like it, but I have to do so</u>.*" [T51]

In addition, due to their limited English proficiency, a prominent theme that emerged from the interview data, some of the informants reported resorting to several pedagogical and linguistic practices such as translating, code-switching, or using L1 to explain unfamiliar terms in their class. These practices served as practical tools for bridging communication gaps and ensuring content comprehension, particularly when teachers were not able to recall relevant English terminology during instruction. Importantly, these strategies were not only compensatory but can also be seen as intentional and adaptive responses to linguistic limitations in the EMI context. They reflect a pragmatic approach to maintaining instructional clarity and learner engagement. This finding is consistent with Martin (2005) and Setati, Adler, Reed, and Bapoo (2002), who pointed out that code-switching and L1 use can help teachers to maintain the flow of instruction while creating 'safe' language

zones in the classroom for less proficient students. Two teachers reflected on these strategies as follows:

(22) "*Sometimes, when I am struck in explaining the lessons in English, <u>I switch my language into Thai (the native language) to make sure students understand the concepts clearly</u>. I think it can also be beneficial in overcoming language barriers and enhancing comprehension for all students.*" [T14]

(23) "*I know that I have to use English during my class. But if I notice that some of my students do not understand what I am talking about, I will explain it again in a simpler way or provide additional examples to ensure their understanding. In some cases, <u>I explain it in Thai and ask my students to explain it back to me</u>.*" [T28]

These findings suggest that more context-specific and language training and professional development programs may be the way forward. The practices discussed above echo Miller's (2002) recommendations that EMI teachers need to make their subject content more accessible to students whose first language is not English. However, I would argue that EMI teachers should prepare their teaching well, including delivering lessons in English and ensuring their content is more comprehensible. Teachers need to balance simplifying the language of instruction to minimise the risk of compromising the quantity and quality of subject content taught. As Airey (2020) suggested, the language requirements for EMI are not limited to improving teachers' general English proficiency, but also include sufficient knowledge of technical, formal, and informal language to adapt to various communicative situations inside and outside the classroom.

Another commonly reported strategy adopted by Thai EMI teachers to cope with their students' inadequate command of English was to repeat and simplify their explanations, in the hope that repeated exposure would help students internalise the content. This coping strategy was evident in the following interview responses:

(24) "*Technology and computer science are the courses I'm taking this semester. Most of the time, I am not sure that the students can understand what I am talking about, <u>especially when it comes to complex functions, I will repeat myself, and explain them again in simple words</u>, which takes a lot of time. <u>I do spend a lot of time explaining some functions and concepts repeatedly</u>. And it would probably be easier for me to explain these things in Thai.*" [T26]

(25) "*Sometimes when <u>my students ask me to repeat what I already explained in class, I will repeat it in Thai and try to simplify my English</u> because I think that it would be much easier to understand those things. I think at*

that time many students might not understand what I have been talking about." [T48]

Although the teaching practices and coping strategies described above could help students to understand the content, they obviously revealed some difficulties with students' communicative competence in English. The actual language practices sometimes do not seem to create an environment conducive to language acquisition, especially when explaining complex concepts and content. Instead, they may limit students' exposure to authentic English use and diminish opportunities for using English in meaningful ways for communication and negotiation. One teacher mentioned the need to slow down and adapt his/her teaching to students' learning styles in order to cater to their language skills and learning preferences:

(26) *"Sometimes, <u>my students tell me to just teach slowly</u>, but if I go slowly, I cannot finish the lessons as planned. This is the problem <u>because students' English ability is not good, so that is the main problem</u>. In contrast, if I go fast, they [students] will not understand what I am teaching. Sometimes, when I ask them a difficult question, it is possible that they will not get it."* [T12]

This finding suggests that making the subject content accessible to students and modifying content delivery to ensure effective lecture comprehension are other teaching strategies that teachers use to cope with EMI implementation and foster student engagement. In this regard, EMI teachers should be familiar with their students' learning styles to effectively accommodate them when delivering subject content, and they should know how to enhance the teaching and learning process through engaging, scaffolding, and socialising students with the subject content (Alhassan, 2021).

7 Discussion

The aim of this study was to investigate teachers' beliefs and expectations regarding the implementation of EMI, the obstacles they encountered, and the strategies they used to overcome these challenges. The results revealed that Thai EMI teachers perceived the EMI approach as beneficial for students. They emphasised its potential to improve both language skills and subject knowledge, and to promote the development of critical thinking and effective communication in English. The teachers also noted the positive impact of EMI on students' academic performance and the teaching strategies employed by teachers. This aligns

with previous research indicating that increased language exposure in subject-specific contexts can lead to improved language acquisition and confidence (Macaro et al., 2018). Galloway & Ruegg (2020) and Galloway and Rose (2022) have also highlighted that EMI is seen as an approach or strategy to promote internationalisation and student mobility, with a focus on improving language skills that ultimately benefit students' future academic and professional endeavours.

Most of the teachers in this study believed that the EMI approach can create an interactive classroom environment that promotes a deeper understanding of the material and improves retention of information. These factors are crucial for effective collaboration in the language classroom, as evidenced by Lasagabaster (2022) and Macaro, Akincioglu, and Dearden (2016). This immersive approach is in line with the principles of CLIL methodology, which advocates the simultaneous teaching of language skills and subject knowledge (Coyle, Hood, & Marsh, 2010). In addition, teachers' responses indicated that students' speaking confidence can be improved through activities in a supportive environment and by creating ample opportunities for English interactions both inside and outside the classroom. This comprehensive perspective of language acquisition emphasises the importance of language not only as a medium of instruction, but also as a tool of cognitive and social development. Consequently, this finding confirms the belief that it is important to create an inclusive learning environment that promotes student success.

Despite these beliefs and expectations, a significant similarity in teaching experiences was related to teachers' ability to explain academic and discipline-specific terminology. In the current study, EMI teachers were found to have difficulty in explaining specialised terminology in English, which often required them to rely on their L1 through code-switching and translanguaging techniques. This problem was particularly evident when teachers had to explain these terms to students with limited English proficiency. However, in contrast to the traditional concept of EMI, I would argue that L1 can be beneficial in linking new content to students' prior knowledge and shared linguistic background. Using the L1 as a pedagogical tool can support both language development and content understanding by mitigating the challenges associated with limited language fluency. As such, using L1 strategically in EMI classrooms is not only a compensatory practice but an effective approach to enhancing overall learning outcomes.

One of the main obstacles teachers faced when implementing EMI in the classroom was the task of explaining complex concepts and terminology in English. This

difficulty has been widely documented in the literature, as teachers often struggle to find a balance between delivering material and lessons and language training. The findings of the present study clearly show that an understanding of language skills relevant to specific academic disciplines is essential to grasp the nature and challenges of EMI. Teaching and learning in EMI are inherently complex as they require subject-specific knowledge and specialised thinking and communication skills, especially when it comes to teaching and learning content subjects.

It is essential that schools ensure that teachers possess adequate English proficiency to teach effectively in EMI contexts. This level of language proficiency is necessary given that teachers are mandated to hold a bachelor's degree in their respective fields and to have successfully completed EMI training before implementing the approach in the classroom. Nevertheless, some teachers expressed concerns about their limited English proficiency, which often leads them to use their L1 when delivering lessons. They perceive this practice as unfavourable and feel that it undermines the principles of the EMI programme. Overcoming these challenges is critical to maintaining a high-quality and effective EMI approach. Therefore, collaboration among teachers, administrators, and practitioners is vital in providing appropriate, research-based training and professional development to support EMI teachers.

The interview data revealed the complexity that teachers face in transitioning their practice to EMI instruction. It became clear how important it is to use L1 and use translanguaging methods. This finding is consistent with Dearden and Macaro (2016) and Jiang et al. (2019), who found that EMI teachers use code-switching to avoid confusion and improve effective information transfer. However, this practice could increase cognitive load if the L1 and second language are linguistically distinct, which could limit second language mastery (Roussel, Joulia, Tricot, & Sweller, 2017). Meanwhile, teachers expressed their discomfort with using only English in their classrooms. Therefore, the need for careful integration of the L1 in EMI environments to facilitate effective communication should be emphasised with caution (Chen, Han, & Wright, 2020). Nevertheless, I would argue that the use of students' first language (L1) in EMI lessons by the teachers in this study has the potential to improve overall learning outcomes by helping students to process and understand the subject matter. Similarly, as Lasagabaster (2018) suggested, translanguaging practices can foster equity by recognising the legitimacy of multilingual repertoires in educational settings and challenging the rigid monolingual norms often embedded in EMI policies. Moreover, the use

of an English-only policy can be counterproductive as it places unnecessary pressure on teachers and restricts students' access to subject content (Takagi, 2015). Therefore, I would argue that EMI language policies should adopt a more flexible, context-sensitive approach that legitimises translanguaging as an effective pedagogical practice. This calls for rethinking EMI language policies to bridge the gap between policy ideals and classroom reality, and to recognise that the fluid use of languages can contribute to more inclusive and effective EMI implementation, especially in linguistically diverse or EFL-dominated contexts such as Thailand.

This study also discovered that the pre-modified input was perceived as an effective teaching approach. This finding suggests that students are more likely to acquire unfamiliar words when teachers modify their input during interaction or teaching. Additionally, most teachers in the current study reported using language as a tool to help students understand the lessons, employing translanguaging as a key pedagogical strategy (Macaro, 2020; Williams, 2023). These findings also indicate that the use of interactively modified information in EMI classrooms can lead to different instructional outcomes.

8 Pedagogical Implications

This study provides valuable insights, raises important concerns, and contributes meaningful data on pedagogical techniques for implementing EMI, particularly in the Thai educational context. Given the challenges reported by teachers, using diverse teaching strategies is crucial for supporting students' language proficiency and academic achievement. Continuous evaluation and updating of EMI methodologies and language training are essential for effective EMI implementation. On-going training of teachers is also vital to increase their effectiveness in delivering EMI instruction. Institutions should provide structured and comprehensive training programmes focusing on both linguistic and pedagogical aspects of EMI teaching (Ozer, 2020). Such programmes should include tailored English language courses addressing specific linguistic needs and teaching strategies such as scaffolding and interactive teaching approaches. These initiatives will boost teachers' confidence and competence in delivering effective EMI lessons.

Based on the results of this study, several recommendations are proposed to support EMI teachers in improving their teaching practice. EMI teachers should create a supportive learning environment to facilitate students'

integration into the academic and professional community and equip them with the skills necessary to tackle challenges. As language is a powerful tool for effective EMI teaching (Macaro, 2018; 2020), EMI teachers should adopt various language-centred pedagogical approaches and improve their English proficiency. They should also develop their bilingual teaching techniques to explain complex concepts in their first language (L1) when appropriate to help students better understand and retain difficult topics. Moreover, EMI teachers can harness the power of translanguaging and create valuable resources to enrich the EMI teaching and learning process, leading to more engaging and effective instruction.

Effective implementation of EMI requires a balance between content delivery and language development. As the findings suggest, teachers should design their lessons so that they are linguistically accessible to students while maintaining academic rigour. They should collaborate with English for Academic Purposes (EAP) teachers as language experts to enhance the EMI content's design, delivery, and assessment. Collaboration between ELT practitioners and subject lecturers is essential as subject lecturers have a deeper understanding of subject-specific vocabulary within their disciplines, while ELT practitioners provide insight into other subject-specific features in subject-specific texts. By gradually increasing the complexity of language used in classroom interactions and instructional materials, EMI teachers can better support instruction. Additionally, teachers should incorporate cross-cultural learning activities as well as collaborative projects that encourage students to work together with their peers to promote mutual understanding and respect, especially in EMI classes that often include students from different cultural backgrounds.

The findings of this study highlight that teachers' beliefs, the challenges they encounter, and their pedagogical practices are not isolated but intertwined elements that influence each other. That is, teachers' beliefs about language learning and subject mastery shape their instructional decisions, while classroom challenges often push them to adapt, refine, or re-evaluate those beliefs. Pedagogical practices, in turn, reflect and respond to both as they are the concrete expression of teachers' beliefs and simultaneously the mechanisms through which challenges are overcome (Hegazy et al., 2021). Understanding this intersection is essential for designing effective professional development that encourages teachers to critically reflect on their beliefs, respond flexibly to challenges, and implement strategies that balance language and content goals. Collaboration among EMI teachers, EAP specialists, and curriculum designers can foster this reflective practice and promote high-quality EMI instruction.

This study has certain limitations that should be acknowledged. First, the sample size was relatively small and may not be representative of the population as a whole. Therefore, future studies should include a larger and more diverse group to ensure generalisability. Using a variety of research methods will offer a more comprehensive understanding of EMI teachers' perspectives and pedagogical practices. Second, the limited period of data collection may not capture the evolving nature of teachers' beliefs and teaching practices. Longitudinal studies are recommended to collect data from participants over a longer period of time, providing a more detailed and chronological analysis of the challenges EMI teachers face and how their practices develop over time. In addition, integrating qualitative methods, such as observations, could also yield a richer understanding of the nuances of teachers' beliefs and practices within the EMI context.

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