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Motivation, Self-Efficacy, and Language Use in English Medium Instruction: Predictors of Academic Language Challenges

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Abstract:

This study investigates how motivation, self-concept, self-efficacy, and L2 use interact to influence students' experiences in English Medium Instruction (EMI). While EMI programmes are increasingly common worldwide, many students continue to face significant academic language challenges, especially in writing and speaking, even when their formal language proficiency is adequate. To address this issue, the study adopts a case study approach combined with a literature review. The quantitative phase surveyed 544 EMI undergraduates using validated questionnaires measuring motivation (with three sub-dimensions), self-efficacy, L2 use, and academic language challenges. The qualitative phase included six student focus groups and eleven teacher interviews to provide deeper contextual insights. The findings reveal that both self-efficacy and L2 self-concept strongly predict students' ease of learning, while motivated behaviour and L2 use show limited effects. These results highlight the importance of self-beliefs rather than language frequency alone. The paper concludes that supporting students' self-efficacy and positive self-concept can significantly reduce EMI challenges and improve academic outcomes.

Keywords: English Medium Instruction, motivation, self-efficacy, self-concept

1. Introduction

In recent years, the rapid internationalisation of higher education has led to the widespread adoption of English Medium Instruction (EMI) across universities worldwide. While this trend provides students with increased access to global knowledge and opportunities, it also presents considerable linguistic and psychological challenges. Although students admitted to EMI programmes typically meet formal language proficiency requirements, many still strug-

gle with academic tasks in listening, speaking, reading, and particularly writing. Lasagabaster's research has shown that EMI challenges often involve an interplay between motivation, identity, learning strategies, and social support systems, rather than being reducible to language difficulties alone [1]. These challenges are not solely related to linguistic ability but are also shaped by individual differences in motivation, self-beliefs, and learning behaviours. Understanding these factors is therefore essential for ensuring student success in EMI contexts.

Existing research has highlighted several important directions. For example, Thompson et al. and Zhou and Rose found that self-efficacy plays a crucial role in predicting students' ability to cope with EMI demands [2,3], while Rose et al. examined motivation but primarily focused on overall effort rather than its multidimensional nature [4]. Other studies emphasised that frequent use of English in class could enhance learning outcomes, but their findings remain inconsistent and often fail to account for the complex psychological processes involved. These gaps suggest that more nuanced research is needed to clarify the relative roles of motivation, self-concept, self-efficacy, and L2 use in shaping students' experiences.

The present study adopts a case study and literature review to address these issues. In the quantitative phase, data were collected from 544 undergraduate EMI students through validated questionnaires measuring motivation, self-efficacy, L2 use, and academic language challenges. The qualitative phase included focus group discussions with students and semi-structured interviews with lecturers to provide richer insights into the underlying dynamics. This approach allows the study not only to test the predictive relationships among key variables but also to contextualise them within students' lived experiences.

The significance of this research lies in its contribution to both theory and practice. Theoretically, it advances the literature by breaking motivation into multiple dimensions and demonstrating the pivotal role of self-beliefs in EMI success. Practically, it offers implications for curriculum design and policy, suggesting that fostering self-efficacy and positive self-concept may be more effective than simply increasing English exposure. By integrating psychological, behavioural, and linguistic perspectives, this study provides a more comprehensive understanding of how students navigate challenges in EMI programmes.

2. Literature Review

This research draws on two main theoretical frameworks. First, Dörnyei's L2 Motivational Self System explains motivation through learners' future self-image as English users, operationalised motivation into three dimensions: L2 self-concept, subject self-concept, and motivated behaviour. Second, Bandura's Self-Efficacy Theory stresses students' beliefs in their ability to perform academic tasks in English, which strongly shape persistence and achievement [5]. These psychological factors help explain why some students struggle in EMI even when their language proficiency is sufficient: as emphasized by prior research, it is not just about skill but also about self-belief [6]. The study also examines classroom L2 use and academic language challenges, such as difficulties in speaking and writing. Previous findings confirm that self-efficacy and L2 self-concept are strong predictors of reduced language challenges [7], while motivated behaviour and L2 use were not significant. This suggests that believing in one's ability matters more than simply trying harder or using more English. However, as Mercer notes, the study emphasises individual factors over social or emotional influences such as classroom climate or peer pressure [8]. Overall, this study links psychological beliefs—not just language level—to EMI learning success.

The study addressed three main research questions:

1. To what extent do student motivation, self-efficacy, and classroom L2 use predict the severity of academic language challenges in EMI?
2. Which dimensions of motivation are more strongly associated with ease of learning in EMI?
3. How do students and teachers perceive the role of motivation, self-efficacy, and L2 use in influencing language-related challenges?

The mixed-methods design consisted of two phases. Phase One was quantitative, involving the collection of data from 544 EMI undergraduate students through a structured questionnaire. Phase Two was qualitative, including six student focus groups (24 participants in total) and semi-structured interviews with 11 teachers. The questionnaire covered five key constructs: motivation (with three sub-dimensions), self-efficacy, frequency of L2 use in the classroom, and academic language challenges (ALC). All constructs were measured using a 7-point Likert scale. Data analysis was conducted using SPSS, including mul-

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tiple regression and exploratory factor analysis. Together, these theoretical and methodological frameworks clarify that students' success depends not only on their actual abilities but also on whether they believe in their ability to succeed.

3. Case Study

This case study analyses Sahan, Kamasak, and Rose's(2023) research on motivation, self-concept, self-efficacy, and language use in EMI.

Table 1 presents the descriptive statistics for the key constructs. The findings show that students reported moderately high levels of motivation (M = 5.019) and self-efficacy (M = 5.344), but the mean score of academic challenges (M = 4.962) indicates that substantial difficulties remained. The high variance in classroom L2 use (SD = 17.1) reflects the heterogeneous implementation of EMI across courses and disciplines, with some classes relying heavily on English while others adopted more flexible translanguaging practices. These descriptive findings highlight a paradox: students with sufficient proficiency and strong motivation still face notable difficulties, suggesting that psychological factors may not always translate into effective classroom performance when the linguistic demands exceed preparation.

Table 1. Descriptive statistics from questionnaire [8]

Construct	MOT	SE	L2USE	ALC
Mean	5.019	5.344	69.929	4.962
Std.Error of Mean	0.047	0.571	0.775	0.511
Median	5.166	5.600	71.125	5.015
Std. Deviation	1.051	1.255	17.115	1.193
Variance	1.104	2.164	29.293	1.424
Skewness	-0.489	-0.749	-0.547	-0.478
Kurtosis	-0.124	-0.142	-0.568	-0.065

The regression analysis reported in Table 2 provides further insights. The model explained 62.2% of the variance in academic challenges, a strong explanatory power. Among the predictors, both motivation ($\beta = 0.368$, $p < 0.001$) and self-efficacy ($\beta = 0.508$, $p < 0.001$) were significant, whereas the amount of English used in class was not ($\beta = -0.013$, $p = 0.059$). This challenges the assumption that greater exposure to English automatically reduces difficulties. Instead, psychological resources such as confidence and intrinsic motivation are more decisive in shaping academic outcomes. The qualitative findings confirmed this interpretation: teachers noted that students lacking confidence in speaking English were less willing to participate, regardless of how much English was used in class. Students themselves admitted that fear of embarrassment, peer pressure, and anxiety often prevented them from contributing in English, suggesting that the quantity of English input may increase stress unless accompanied by scaffolding and support. Therefore, the evidence highlights that self-efficacy and motivation are stronger predictors of EMI success than the proportion of English employed in the classroom.

Table 2. The results of regression analyses [8]

	R2	B	SE B	Standardized Beta (β)	t-value	p value	ΔF
Constant		0.297	0.218		1.364		
MOT		0.421	0.043	0.368	9.750	<0.001***	
SE		0.488	0.037	0.508	13.299	<0.001***	
L2USE		-0.001	0.002	-0.013	-0.435	0.059	
Model summary	0.622					<0.001***	236.827

Dependent variable: ALC – Students' Academic Language Challenges.

***Significant at the 0.001 level.

A closer look at motivation through Table 3 further clarifies which dimensions matter most. The regression results revealed that L2 self-concept ($\beta = 0.607$, $p < 0.001$) and subject self-concept ($\beta = 0.215$, $p < 0.001$) were significant predictors, while motivated behaviour ($\beta = 0.048$, $p = 0.074$) was not. This suggests that students' beliefs about their own competence in English and in their academic subjects play a greater role in reducing challenges than the actual amount of effort they report investing. This finding is particularly noteworthy because it contradicts traditional motivational models that regard persistence and effort as key determinants of success. In the EMI context, effort without confidence does not translate into improved performance, implying that the central mechanism lies in self-belief rather than behaviour. Students who felt competent in English reported fewer struggles even when their proficiency was not objectively stronger, while those who expended considerable effort but lacked belief in their abilities continued to struggle. The interviews corroborated this, as many students admitted to memorisation and superficial learning strategies that helped them pass exams but did not enhance their ability to complete academic tasks in English.

Table 3. Constructs of motivation [8]

	B	SE B	Standardized Beta (β)	t-value	p value	Tolerance	Variance Inflation Factor (VIF)
Constant	1.209	0.179		6.753	<0.001***		
MOT1	0.484	0.027	0.607	17.802	<0.001***	0.801	1.245
MOT2	0.041	0.029	0.048	1.412	0.074	0.804	1.239
MOT3	0.200	0.034	0.215	5.817	<0.001***	0.622	1.460

Dependent variable: ALC – Students' Academic Language Challenges ***Significant at the 0.001 level.

4. Discussion

This case study is based on the research of Sahan, Kamaşak, and Rose (2023), which examines the roles of motivation, self-concept, self-efficacy, and language use in EMI contexts.

Taken together, the findings highlight three key insights. First, according to the study by Rose and colleagues, psychological rather than purely linguistic factors are decisive in EMI outcomes, with self-efficacy and L2 self-concept explaining substantial differences in students' challenges [9]. Although English exposure is important, they emphasise that motivation and self-efficacy account for much of the variance in academic challenges, underscoring the role of confidence and competence beliefs.

Second, Bandura's work on self-efficacy theory argues that the strongest predictor of ease of learning is L2 self-concept, because students' perceptions of themselves as capable English users reduce barriers more effectively than effort or simple exposure. He stresses that belief in one's ability influences persistence, engagement, and achievement [10].

Third, Macaro highlights that the limited role of classroom L2 use implies that quality matters more than quantity. He warns that without sufficient scaffolding, a strict English-only policy may heighten anxiety and disengagement rather than enhance learning [11]. Instead, García and Wei argue that moderate use of students' first language—through translanguaging—can provide a supportive balance that reduces stress while still promoting academic development in English [12].

The implications of this case study are significant for policy and practice. At the institutional level, Rose et al. suggest that universities should not assume that simply enforcing greater English exposure will resolve challenges; instead, they need to design interventions that strengthen student confidence and nurture positive L2 self-concepts—such as scaffolded tasks, peer support systems, and opportunities for meaningful practice. At the classroom level, García and Wei emphasise that EMI educators can adopt translanguaging strategies to facilitate comprehension without undermining the broader goals of EMI. For researchers, Duckworth and colleagues argue that the limited predictive power of motivated behaviour raises ques-

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tions about how effort is conceptualised; they propose that broader frameworks such as grit and perseverance may capture this construct more effectively [13].

In conclusion, this case study demonstrates that the core challenges in EMI cannot be fully explained by linguistic exposure alone. Instead, students' ease of learning is best understood through their self-efficacy and motivation, especially their L2 self-concept, which acts as the most powerful predictor of academic success. While English use in class remains necessary, it is insufficient without psychological support mechanisms and well-scaffolded pedagogy that build students' confidence and reshape their competence beliefs. For institutions aiming to internationalise through EMI, the lesson is clear: cultivating positive self-beliefs is as essential as providing English instruction, and only through this dual focus can both learning quality and long-term EMI goals be achieved.

5. Conclusion

This study investigated how motivation, self-concept, self-efficacy, and classroom L2 use predict academic language challenges in EMI settings. The findings indicate that self-efficacy and motivational self-concepts are strong predictors of students' ease of learning, whereas motivated behaviour and L2 use showed no significant effects. The analysis revealed that students' self-beliefs, particularly their L2 self-concept, play a decisive role in shaping their EMI learning experiences, supporting the hypothesis that psychological confidence is central to academic success.

This research contributes to the literature by addressing a gap in EMI studies, where previous work often emphasised language proficiency and exposure while overlooking psychological variables. The findings extend earlier theories by demonstrating that self-efficacy and self-concept are more influential than behavioural effort, highlighting the importance of belief-driven learning.

From a practical perspective, the study offers important implications for EMI instruction. It suggests that interventions should focus not only on increasing students' language use but also on fostering their confidence and positive self-concepts. Such approaches may lead to more sustainable improvements in academic performance and engagement.

Nevertheless, the study is limited by its focus on a single institution and its measurement of L2 use, which emphasised frequency rather than function. These limitations may restrict the generalisability of the findings. Future research could expand across disciplines and cultural contexts, refine the operationalisation of L2 use, and incorporate additional emotional and social variables such as classroom climate and peer relationships.

Overall, this study provides new insights into the psychological underpinnings of EMI learning and highlights the importance of self-beliefs in mitigating language challenges. By emphasising the central role of confidence and self-concept, this research paves the way for future pedagogical and policy innovations.

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