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UNIVERSITY TEACHERS' ATTITUDES TOWARDS ESP AND EMI IN CROATIAN HIGHER EDUCATION: IMPLICATIONS FOR INTERNATIONALISATION AND CURRICULUM DEVELOPMENT

Abstract

Following the Bologna Process (2001) and Croatia's accession to the European Union (2013), English has assumed a more prominent role in Croatian higher education (HE). While Croatian remains the dominant language of instruction, universities are increasingly expected to internationalise their programmes through English for Specific Purposes (ESP) and English-Medium Instruction (EMI) courses. This study analyses the attitudes of content-area (non-language) university teachers at the Faculty of Kinesiology, University of Split, Croatia, towards the use of English in their teaching, focusing particularly on ESP and EMI. The aim is to examine how these attitudes contribute to the internationalisation of HE and support students' academic and professional development through discipline-specific English instruction. The results obtained from the data collected using an online questionnaire indicate strong support for ESP course integration, with most teachers recognising its value in enhancing students' employability and domain-specific language proficiency. While EMI was not addressed directly, several items suggest teachers are aware of EMI-related demands and express positive attitudes towards its benefits. Notably, teachers with Erasmus experience showed greater confidence in English and more openness to EMI. These findings highlight the need to expand ESP offerings, strengthen EMI-related training, and develop institutional language policies aligned with internationalisation goals.

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1. INTRODUCTION

In Croatia, English has been taught as a foreign language in schools for over a century (Vilke, 2007). However, over the past two decades, following the implementation of the Bologna Process in 2001 and Croatia's accession to the European Union (EU) in 2013, English has gained importance as a medium of instruction in Croatian higher education (HE). Many academics today are thus expected to teach courses in English, positioning the language as an essential tool for both students and teaching staff. Yet, the growing use of English raises important questions about how teachers perceive, adapt to, and are supported in implementing English-Medium Instruction (EMI) in their courses.

Previously, Croatian was the dominant language of instruction, except in English language and literature programmes. The introduction of EMI outside philology programmes began in the early 2000s, driven by Croatia's integration into the European Higher Education Area (EHEA) and the above-mentioned implementation of the Bologna Process. The Bologna Process aimed to harmonise higher education systems across Europe, develop quality assurance systems, and encourage mobility and internationalisation (European Education and Culture Executive Agency, 2020). As part of this process, Croatia restructured its universities and study programmes, introducing courses and study programmes taught in English (Study in Croatia, n.d.). The new language policy sought to improve Croatian students' English proficiency and attract international students.

The extent of EMI use in Croatian HE varies by institution. While EMI is more prevalent in English philology programmes, other disciplines typically offer only a limited number of courses in English. At the Faculty of Kinesiology (KIF; a Croatian abbreviation), University of Split (the setting of the study), most courses are taught in Croatian. The faculty offers one mandatory English for Specific Purposes (ESP) course at the undergraduate level (B1–B2 proficiency) and two elective ESP courses at the graduate level (B2–C1 proficiency). In addition, 24 non-language elective courses across both undergraduate and graduate levels (B2–C1 proficiency) are delivered through EMI. The mandatory ESP course, lasting one semester and worth three credit points (ECTS; European Credit Transfer System abbreviation), is a fixed part of the sports study programme curriculum. Elective courses, also worth three ECTS credits, are included in the curriculum but are subject to annual enrolment numbers, with a minimum of 10 students required. While practical courses are exclusively available to international students, theoretical courses are open to both domestic and international students. The status and availability of ESP courses in sports science at Croatia's other two kinesiology faculties (the University of Zagreb and the University of Osijek) vary according to their study programmes.

This study examines university teachers' attitudes towards English in their teaching, with a particular focus on ESP and EMI in Croatian HE. The overall goal is to explore how these attitudes contribute to the internationalisation of HE and

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support students' academic and professional development through discipline-specific English instruction.

2. LITERATURE OVERVIEW

2.1. ESP and EMI: International and national contexts

English for Specific Purposes (ESP) focuses on teaching English as a second language within a particular professional, academic, or occupational domain (Hyland, 2022; Paltridge & Starfield, 2013). It has been widely researched (Cerezo Herrero et al., 2021), with approximately 3,500 articles indexed in Web of Science between 1990 and 2020 (Hyland & Jiang, 2021). Studies have covered fields such as law (Đorđević, 2020; Giampieri, 2023), medicine (Guest, 2021; Skelton & Richards, 2021), business (Gajšt, 2017; Vázquez-Amador & Lario-de-Oñate, 2022), engineering (Arnó-Macià et al., 2020; Komaromi & Jerković, 2021), and ICT (García-Sánchez & Luján-García, 2020). While early ESP research focused on technical vocabulary and grammar, recent studies explore broader communicative and contextual aspects of language use (Hyland, 2022).

EMI most commonly refers to "the employment of the English language as a medium for the instruction of academic subjects other than the English language itself" (Dafouz & Gray, 2022, p. 163), and, as Smit (2023) reminds us, its scope and application may differ according to geographical, institutional, and linguistic contexts. In EMI, English is employed as a medium for the delivery of complex, subject-specific material, where content knowledge takes precedence over language acquisition for second language (L2) users (Kuna, 2020; Pecorari & Malmström, 2018). Similar to ESP, EMI has been extensively examined internationally, particularly in terms of its impact on students and teachers. Studies highlight the need for EMI-specific teacher training to ensure content delivery quality (Beaumont, 2020; Dearden, 2014; Macaro, 2018; Slesarenko et al., 2015), as well as challenges students face, such as understanding content, accents, or instructions in English (Dafouz & Smit, 2020; Kirkgöz, 2009). At the same time, EMI is often viewed as a strategic tool for higher education internationalisation (Akıncıoğlu, 2023; Arnó-Macià & Aguilar, 2018; Lasagabaster, 2022). Studies have also shown that EMI can positively affect language learning: Cosgun and Hasirci (2017) reported improvements in receptive skills, while Vidal and Jarvis (2020) found benefits in English proficiency and essay quality, but no increase in lexical diversity.

In the Croatian context, most research has centred on ESP, highlighting its importance for aligning language learning with professional needs (Cigan & Kordić, 2013; Krstinić & Pauković, 2020). Other studies have explored student attitudes towards English, consistently recognising its value for academic and career

development (Ferčec & Šoštarić, 2006; Jelovčić, 2010; Kabalin Borenić, 2011; Martinović & Poljaković, 2010; Rujevčan & Dumančić, 2020).

While EMI has received less national attention, several studies have emerged. Drljača Margić and Vodopija-Krstanović (2017) analysed the implementation of EMI in Croatian universities, while their later study (2018) explored EMI teacher training, concluding that structured language support enhances EMI teaching. More recent research has shifted focus to student perspectives: Čakarun and Drljača Margić (2025) examined motivation and expectations, and Drljača and Žeželić (2015) highlighted students' perceived benefits of EMI, particularly in language development. Additionally, Božić Lenard and Lenard (2023) investigated EMI policies across Croatian universities, noting the supportive role of ESP.

Although previous research has addressed general perceptions of ESP and EMI, no study has specifically explored teachers' attitudes towards ESP for sports in Croatian higher education. This study addresses that gap by examining sports science university teachers' views on the relevance of ESP for students, as well as their perceived readiness for EMI. In doing so, it underlines the role of ESP and EMI in internationalisation efforts and their contribution to students' professional language competence for the job market.

3. METHOD

3.1. Participants

This study included a total of 32 teaching staff (M = 20; F = 12; age 39 ± 4.7), all from the Faculty of Kinesiology, University of Split, Croatia. Among the 32 teachers surveyed, one specialised in ESP (holding a doctoral degree in English philology), two had doctoral degrees in medicine, one in mathematics, five teachers were teaching assistants in kinesiology (teachers without Ph.D.), and the remaining teachers held doctoral degrees in kinesiology.

Table 1 presents the distribution of university teachers according to their academic rank.

TEACHERS' ACADEMIC RANK	N	%
Distinguished professor	3	9.4
Full professor	7	21.9
Associate professor	9	28.1
Assistant professor	8	25.0
Teachers without Ph.D.	5	15.6

Table 1. Teachers' academic rank

Table 1 indicates that the majority of teachers were associate professors (28.1%) and assistant professors (25%), suggesting that mid-career faculty members were

the most represented in the study. Full professors accounted for 21.9%, while distinguished professors comprised only 9.4%, suggesting that senior faculty members were less represented. Additionally, 15.6% of respondents were teachers without a Ph.D., i.e., teachers who may primarily focus on practical classes rather than research-oriented ones.

3.2. Instrument

The data for the study were collected via an online questionnaire (Penjak & Delaš Kalinski, 2023) administered in Croatian through Google Forms. The research was conducted between December 2022 and February 2023, during the first academic semester of the 2022–2023 academic year. Participants were provided with a QR code and detailed instructions. In the introductory section, they were informed that the questionnaire was anonymous, their participation was voluntary, and that their data would not be shared with third parties but used solely for scientific analysis. There was no time limit for completing the questionnaire. Participants were also informed about the Common European Framework of Reference for Languages (CEFR) (Council of Europe, 2020) standards and principles.

The questionnaire collected sociodemographic data, including gender, age, education background, academic rank, additional language knowledge, and experience of travelling abroad (e.g., for professional development, academic exchange, or cultural visits). It comprised 24 items divided into three groups: 1) self-evaluation of teachers' language skills and EMI practice; 2) teachers' attitudes and perceptions of English use; and 3) teachers' attitudes towards ESP. Most responses were measured using a five-point Likert scale (5 – strongly agree, 4 – agree, 3 – neither agree nor disagree, 2 – disagree, and 1 – strongly disagree), while four items were categorical in nature. The psychometric characteristics of the questionnaire were assessed using the test–retest method, with a subsample of seven teachers completing the questionnaire again 12 days after the initial survey.

Although the questionnaire did not include a separate section dedicated to EMI, several items within the questionnaire were deliberately designed to reflect aspects associated with EMI, such as the use of English in academic instruction, the need for discipline-specific language support, and the skills required for reading and writing academic texts. The inclusion of these items was informed by existing research on EMI, which identifies key components of teacher readiness and attitudes, including language proficiency, comfort with teaching in English, perceptions of student comprehension, training needs, and the perceived benefits of EMI (Dearden, 2014; Drljača Margić & Vodopija-Krstanović, 2015; Macaro, 2018). As such, while EMI was not assessed directly, the questionnaire provides relevant data for inferring attitudes towards EMI-related practices.

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3.3. Procedure

To ensure the reliability of the quantitative data, the correlation between the test and retest was assessed, along with a *t*-test for dependent samples. The data were identified reliable if the correlation was significant and greater than 0.70, and the *t*-test did not reveal any significant differences between the test and retest results. For items measured on a categorical scale, reliability was defined as the ratio of participants who provided consistent responses to the same item across the two testing occasions, relative to the total number of participants. An item was considered reliable if this ration exceeded 0.85. The frequency distribution and percentage distribution of participants' responses for each item were calculated according to the type of the item. Additionally, the non-parametric nature of the data was assessed using the Kolmogorov-Smirnov test, and the Mann–Whitney U-test was employed to compare two independent groups of participants (teachers with Erasmus participation vs. those without). A Type I error rate of α = 5% was set. All data presented in this study were analysed using the statistical software package Statistica 14.0 (TIBCO Software Inc., 2020).

4. RESULTS

Prior to conducting the statistical analysis, the reliability of the measurement instrument was assessed by comparing results from the test and retest. It was confirmed that no significant differences were found between the two testings ($p >$ 0.05), indicating stability over time. Additionally, the correlation between test and retest scores was consistently above 0.70 and statistically significant (r ranged from 0.71 to 0.92; $p < 0.05$), confirming the reliability of the questionnaire. Therefore, it was concluded that the measurement tool used was considered reliable.

Table 2 presents teachers' self-evaluation of language skills and EMI practice.

ITEM	RESPONSE	N	%
1. Have you learned English?	Yes	31	99.0
	No	1	1.0
2. During which periods of your formal education did you learn English?	In primary and secondary school	31	96.9
	Occasionally as a part of foreign language school	1	3.1
3. Your knowledge of English is at a C1 advanced level	Strongly agree	12	37.5
	Agree	11	34.4
	Neither agree nor disagree	7	21.9
	Disagree	1	3.1
	Strongly disagree	1	3.1

4. Do you speak any other foreign language?	No	14	43.7
	Italian	11	34.4
	German	3	9.4
	French	2	6.3
	Spanish	1	3.1
	Slovene	1	3.1
5. Benefits of English language in professional life	Extremely beneficial	23	71.1
	Beneficial	9	28.9
6. Erasmus exchange mobility programme	Yes	19	59.4
	No	13	40.6
7. Subjects taught in English	Yes	18	56.3
	No	14	43.7
8. Language of the teaching materials	Only in English	26	81.2
	Half in English and half in Croatian	4	12.5
	Only in Croatian	2	6.3

Table 2. Language background and EMI practice

Table 2 shows that nearly all teachers learned English, most during primary and secondary school. The majority of respondents (71.1%) found English very beneficial, recognising the values of both general and professional English. Over half of them (59.4%) have participated in the Erasmus programme, and 56.3% reported using EMI in their courses. Among EMI users, 81.2% also used English-language teaching materials.

To obtain more structured data, the study examined teachers' attitudes towards and perceptions of English use, as presented in Table 3.

ITEM	RESPONSE	N	%
1. The English language is difficult	Strongly agree	0	0.0
	Agree	1	3.1
	Neither agree nor disagree	15	46.9
	Disagree	16	50.0
	Strongly disagree	0	0.0
2. Situations requiring English proficiency	In writing scientific papers	2	6.2
	In reading scientific literature	3	9.4
	In everyday situations abroad	2	6.2
	All of the above	25	78.2
3. The most required English language skills	Reading skills	7	21.9
	Writing skills	1	3.1
	Speaking skills	5	15.6
	All of the above are equally important	19	59.4
4. English language skills you lack	Fluency and grammatical correctness in writing	8	25.0
	Fluency in oral communication	5	15.6
	Knowledge of technical vocabulary	2	6.2
	Grammatical knowledge	3	9.4
	All of the above	7	21.9
	Other	7	21.9

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5. Knowledge and skills that do not receive enough attention in class	All language skills are equally represented	5	15.6
	Most common grammatical structures	2	6.2
	No skill was given enough attention	3	9.4
	Technical vocabulary and technical text processing	11	34.5
	Everyday oral communication	9	28.1
	Other	2	6.2

N = number of participants who selected a particular response (frequency distribution).
% = percentage of participants who selected a particular response (percentage distribution).

Table 3. Teachers' attitudes towards the use of English

As shown in Table 3 half of the teachers disagreed that English was difficult, while a similar number remained indecisive. Most respondents (78.2%) saw English as necessary in all situations listed, and nearly two-thirds of them (59.4%) considered all language skills as equally important, while writing was rarely singled out. More than a fifth reported lacking multiple skills, with 25% of respondents highlighting fluency and grammatical accuracy in writing. Regarding the skills that do not receive sufficient attention in class, 15.6% indicated spoken communication was lacking, while just over a third of the respondents emphasised the need for more technical vocabulary.

Table 4 summarises teachers' attitudes towards the use of ESP in HE. Most respondents considered ESP extremely important for any profession and agreed it enhances students' general English proficiency. Three-quarters believed that two years of English instruction were insufficient, likely reflecting the limited ESP offerings at KIF. Teachers generally agreed that ESP improves employability, especially abroad, and that teaching materials should be adapted to students' needs. However, more than half (56.2%) believed that ESP textbooks should not be limited solely to profession-specific texts.

ITEM	RESPONSE	N	%
1. Knowledge of ESP	Extremely important for any profession	24	75.0
	Important for any profession	7	21.8
	Neither important nor unimportant for any profession	1	3.2
	Unimportant for any profession	0	0.0
	Extremely unimportant for any profession	0	0.0
2. Learning ESP at university complements and expands students' GE	Strongly agree	23	71.9
	Agree	8	25.0
	Neither agree nor disagree	1	3.1
	Disagree	0	0.0
	Strongly disagree	0	0.0
3. Learning English during the first two years of study is enough to acquire all the language knowledge and skills necessary for kinesiologists	Yes	8	25.0
	No	24	75.0

			N	%
4.	Knowledge of ESP will benefit students when finding a job in Croatia	Strongly agree	8	25.0
		Agree	14	43.8
		Neither agree nor disagree	8	25.0
		Disagree	2	6.2
		Strongly disagree	0	0.0
5.	Knowledge of ESP will benefit students when finding a job outside of Croatia	Strongly agree	26	81.3
		Agree	5	15.6
		Neither agree nor disagree	1	3.1
		Disagree	0	0.0
		Strongly disagree	0	0.0
6.	Creating ESP teaching materials that are adapted to nonnative speakers of English is important	Strongly agree	14	43.8
		Agree	15	46.8
		Neither agree nor disagree	3	9.4
		Disagree	0	0.0
		Strongly disagree	0	0.0
7.	ESP textbook for future kinesiologists should contain exclusively texts related to that profession	No	18	56.2
		Yes	14	43.8

N = number of participants who selected a particular response (frequency distribution).
% = percentage of participants who selected a particular response (percentage distribution).

Table 4. Teachers' attitudes towards ESP

The Kolmogorov-Smirnov test revealed that the distribution of the items significantly deviated from normality ($p < 0.05$). Therefore, a non-parametric approach was used to identify group differences. Table 5 presents the results of the Mann–Whitney U-test, highlighting differences in responses between teachers who have participated in Erasmus exchange mobility programmes ($N_1 = 19$) and those who have not ($N_2 = 13$).

ITEM	Z	U	*p*
1. Your knowledge of English is at a C1 advanced level	2.64	6.0	<0.01
2. The English language is difficult	1.99	13.0	0.04
3. Learning ESP at university complements and expands students' GE	1.76	15.5	0.08
4. Knowledge of ESP will benefit students when finding a job in Croatia	1.40	12.5	0.11
5. Knowledge of ESP will benefit students when finding a job outside of Croatia	1.90	14.0	0.06
6. Creating ESP teaching materials that are adapted to nonnative speakers of English is important	1.62	17.0	0.11

Table 5. The Mann–Whitney U-test for statistical comparison of teachers' attitudes towards GE and ESP

The analysis reveals statistically significant differences in self-assessed English proficiency ($p < 0.01$) and perceived language difficulty ($p = 0.04$), with Erasmus participants rating their skills higher and finding English less challenging.

Additionally, two items, ESP complementing GE ($p = 0.08$) and its values for employment abroad ($p = 0.06$), approach significance, suggesting that internationally mobile teachers may better recognize the broader benefits of ESP.

Although the study did not include questions that directly assessed teachers' attitudes towards EMI, the analysis of the questionnaire revealed several patterns that can be indirectly linked to the challenges and needs within EMI, while also highlighting the importance of targeted language development through ESP.

First, regarding the linguistic demands of EMI, the majority of respondents (78.2%) stated that English is primarily needed for academic tasks such as writing scientific papers and reading professional literature (Table 3, Item 2). Despite this awareness, a large number of teachers reported deficiencies in their own language competencies, particularly in fluency and grammatical accuracy in both writing and speaking (25% and 21.9%, respectively; Table 3, Item 4). These findings suggest a misalignment between the expected language competences in EMI settings and teachers' actual self-assessed preparedness. Second, respondents indicated that technical vocabulary and genre-specific skills are not sufficiently addressed in their current teaching practice (34.5%; Table 3, Item 5), pointing to a gap in the language preparation necessary for delivering subject-specific content in English – a key component of the EMI model. This lack further underscores the need for structured and systematic inclusion of ESP content within curricula. Third, in relation to attitudes toward ESP, the responses strongly support its relevance: teachers believe that ESP improves students' employability both in domestic and international contexts and complements general English proficiency (Table 4, Items 1, 2, 4, and 5). Additionally, many respondents emphasized the importance of adapting ESP materials for non-native English speakers (Table 4, Item 6), showing awareness of linguistic diversity and the need for inclusive teaching resources. Finally, most teachers rated their English proficiency at the C1 level (Table 5, Item 1), which reflects relatively high self-confidence. However, when viewed alongside the previously reported language gaps, this raises questions about their actual readiness to deliver instruction in English. Taken together, these findings clearly point to the need for additional ESP courses as structured support for EMI instruction. Such courses would not only assist teachers in developing functional language competence within their disciplines, but would also contribute to more effective and equitable EMI implementation.

Even so, these results, although not directly obtained from EMI-related questions, are also indicative of teachers' general levels of awareness with regard to EMI-related competences. We may say that they reflect teachers' cautiously positive attitudes towards EMI as well as underline their attitudes towards the use of English in academic settings, ESP support, and self-perceived competences with regard to their own proficiency levels showing their degree of readiness for EMI. Yet, reported

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difficulties with oral fluency and grammar suggest some areas in which more training and support from the institution are possibly needed. Overall, the responses imply that teachers value the role of English in HE and may be supportive of EMI if appropriate training and resources are provided.

5. DISCUSSION

The survey results provided various insights into university teachers' attitudes towards ESP, EMI, and general English language proficiency. The first section focused on the teachers' demographics and personal background information. The demographic data revealed that mid-career teachers, particularly associate and assistant professors, constituted the largest proportion of participants, while distinguished professors were underrepresented. This sociodemographic distribution may reflect the tendency of younger, mid-career teachers to engage more actively with contemporary educational practices, including the integration of English into their teaching. Additionally, the 15.6% of respondents without a Ph.D. may represent a subgroup that prioritises practical knowledge over academic research, which could influence their views on the need for English proficiency (Shin, 2008).

Over 70% of teachers reported that their perceived knowledge of English benefits them academically and professionally. Their self-reported level of proficiency indicates that that they can comprehend complex and lengthy texts, express themselves fluently and spontaneously, use language effectively for academic and professional purposes, and produce well-structured written work, which corresponds to how C1 level is described in the CEFR. Such proficiency is likely due to the fact that most Croatian students study English throughout primary and secondary school, with the expectation of achieving a B2 level of proficiency by the end of high school (Drljača Margić & Vodopija-Krstanović, 2018). These results align with global trends where English is perceived as essential for academic success, particularly in HE contexts (Hyland, 2022).

Another notable finding was the extent of teachers' experience with Erasmus mobility exchange programmes, with nearly 60% having participated. These results suggest a correlation between international mobility and higher self-perceived English proficiency. Teachers who had participated in such programmes reported greater confidence in their English skills and found the language less difficult than those who had not, highlighting the value of international exposure (Agüero, 2017). Furthermore, the results of the Mann–Whitney U-test (Table 5) corroborated this. Teachers with Erasmus experience also expressed a more positive attitude towards the global benefits of ESP, particularly regarding employment opportunities abroad.

It is also worth noting that in recent years (2017-2022), the number of outgoing staff in Croatian higher education has more than doubled, from 1,965 to 4,479 (European Commission, 2023). Given that a significant proportion of staff

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have first-hand experience with international academic environments, it can be assumed that this heightened their awareness of the importance of both ESP and EMI. The proportion of teachers with exchange programme experience closely corresponds to the proportion of teaching staff who use English as the language of instruction in their classes (56.3%). An even higher proportion of respondents (93.7%) reported using English or bilingual (English and Croatian) course materials in their courses at KIF. The correlation between the number of teachers using English in their classes and those with Erasmus experience may align with findings suggesting that a significant percentage of staff report enhanced intercultural understanding and an increased use of scientific foreign language publications in teaching after participating in an Erasmus teaching period abroad (Engel, 2010).

The survey also provided insights into teachers' attitudes towards general English. As shown in Tables 3 and 5, most teachers did not find English difficult (p = 0.04), which was consistent with their self-assessed high proficiency levels. A similar trend was observed in their perceptions of the necessity of English, with nearly 80% considering it essential for reading and writing scholarly papers, engaging with literature, and everyday communication. Notably, 15.6% of respondents (Table 3, item 2) specifically highlighted scientific papers as the area where English was most needed for both reading and writing. This may be explained by the fact that many respondents held senior academic positions and were involved in international research or internationalisation activities. Interestingly, only two respondents explicitly stated that English was important for everyday communication, which is unsurprising given that most participants were academics whose research activities predominantly involve written language.

The importance of being able to read scientific texts in English also aligns with responses to item 3 in Table 3, where over 21.9% of respondents identified reading as the most important language skill. Surprisingly, only one respondent explicitly highlighted the significance of writing, despite the requirement for academics to publish in English. However, nearly 60% of teachers considered all language skills equally important. A possible explanation for the lack of emphasis on writing can be found in responses to item 4 in Table 3, where 25% of respondents reported difficulties with fluent and grammatically correct written English. This suggests an awareness of their deficiencies, which are crucial for effective writing. Additionally, slightly over 15% of respondents explicitly noted a lack of fluency in spoken English, while 21.9% believed they lacked proficiency in all language skills, indicating a significant number of individuals struggling with both reading and writing.

Conversely, only two respondents (6.2%) perceived their technical vocabulary as insufficient. Even when including the 21.9% of respondents who reported deficiencies in all skills – bringing the total to 28.1% – over 71.9% still reported no difficulties with technical vocabulary. This contrast becomes even more apparent when compared with teachers' attitudes towards grammar. The proportion of respondents who believed they lacked grammatical correctness, grammatical knowledge, or proficiency in all listed skills was 56.3%, meaning 43.7% expressed

no concerns about grammar. These results suggest that specialists tend to be more confident in the specialised terminology used in their respective fields of expertise, which forms part of their disciplinary knowledge (Coxhead, 2018), but they are less confident in their English grammar proficiency.

Regarding item 5 in Table 3, respondents were asked to identify topics they believed received insufficient attention in class. In contrast to item 4, the most frequently cited issue was technical vocabulary and technical text processing (34.5%), which may seem surprising given the responses to item 4. However, item 4 reflects how teachers perceive their own skills, whereas item 5 concerns their views on students' needs. This discrepancy can be explained in at least two ways. First, teachers tend to regard technical vocabulary as crucial in ESP, as it enables communication with both specialists and non-specialists in their field (Coxhead, 2018). Second, since respondents were more confident in technical vocabulary, as indicated in item 4, they may feel more comfortable teaching it. In contrast, grammar was perceived as less important, with slightly over 6.2% of respondents identifying it as an area needing more emphasis. This contrasts with their self-assessment, in which over 56% expressed a desire to improve their English grammar skills, potentially explaining why non-English language teachers may be reluctant to prioritise grammar. Additionally, over 28.1% of responses to item 5 indicated that oral communication skills should receive greater attention in teaching.

The responses summarised in Table 2 provided additional insights into teachers' attitudes towards ESP. A significant proportion of teachers (71.1%) perceived English as highly beneficial to their professional lives, underscoring its importance not only for teaching but also for academic networking and research. This is consistent with recent studies highlighting the increasing emphasis on integrating ESP in EMI to support students' academic and professional development (Moncada-Comas, 2022). In line with these findings, teachers also stressed the importance of ESP in preparing students for the global job market. The majority agreed that ESP enhances general English proficiency, further supporting the complementary nature of ESP and general English. While these findings are subjective, they align with previous studies suggesting ESP can improve general English skills (Cigan & Kordić, 2013) and is a valuable approach to language learning (Barrantes Montero, 2009; Shooshtari et al., 2023).

The responses to items 3 in Table 4 indicate that most teachers believed that two years of English instruction were insufficient for kinesiologists to acquire ESP, with only a quarter of respondents holding a contrary view. Comparing these responses with those to item 1 is particularly revealing, as they show that despite recognising the importance of ESP, a quarter of respondents believed two years were sufficient for students to achieve satisfactory ESP proficiency. The significance of ESP is further emphasised in the responses to item 4, where only two respondents (6.2%) disagreed with the notion that ESP could enhance students' job prospects, while a quarter remained neutral. Teachers also indicated that the ESP curricula should focus on areas such as technical vocabulary and academic writing. The

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finding that 28.1% of teachers felt spoken communication was underrepresented in ESP courses reflects ongoing debates in the ESP literature regarding the need for a more balanced approach to language teaching that incorporates all skill areas, particularly speaking (Kaivanpanah et al., 2021). This suggests that most teachers in Croatia believe that ESP can improve students' employment opportunities outside Croatia, aligning with previous research (Krstinić & Pauković, 2020; Violić-Koprivec & Dubčić, 2010) and the broader consensus that ESP enhances career prospects for English learners (Hyland, 2022).

Additionally, the responses to item 6 (Table 4) indicate that over 90% of respondents emphasised the importance of using ESP teaching materials tailored to nonnative speakers, with only 9.4% remaining neutral. Although these results align with other studies in the field (Elkasović & Jelčić Čolakovac, 2023), this finding remains particularly intriguing given that most respondents were not language teachers (only one teacher was ESP teacher). Furthermore, 56.2% of respondents disagreed with item 7, which suggested that ESP textbooks for future kinesiologists should solely focus on kinesiology-related texts. This indicates that over 40% of respondents still believe that kinesiology students should primarily engage with discipline-specific texts.

Lastly, as mentioned earlier, although teachers' attitudes towards EMI were not explicitly measured by the questionnaire, several items provided insightful information on their attitudes towards EMI-related competences. For instance, teachers' recognition of the importance of English for academic purposes, i.e., reading scientific literature and writing research papers, shows a clear awareness of the language demands involved in EMI. In addition, the majority of the teachers stated that they lacked fluency and grammatical accuracy in written and spoken English, reporting potential barriers to EMI implementation. This is in line with earlier studies, which note that teachers' self-reported linguistic weaknesses can affect their readiness to teach English (Dearden, 2014; Macaro, 2018). Somewhat unexpectedly, while teachers tended to feel confident with technical vocabulary, a clear majority believed this was an area that required more classroom emphasis – no doubt a reflection of what they perceived students needed rather than themselves. This distinction is notable, as it may mean that while teachers are confident in their subject-specific English, they remain cautious about more general language demands of EMI, particularly grammar, and fluency.

Teachers' own positive dispositions towards ESP, in the sense that they see it as an added value to employability and a complement to general English, can also articulate indirect support for EMI, particularly when this is presented as a means of internationalisation and student mobility. The fact that over 90% of the teachers shared the attitude on the importance of adjusting ESP content for nonnative speakers also underlines the fact that they are aware of the linguistic and pedagogical adjustments necessary in EMI classes. This learner language level awareness, even for content specialists, has profound importance for EMI, where students can encounter difficulties in both content and language comprehension

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(Aizawa et al., 2023). Apart from this, the fact that more than half of the respondents rated their own English skills at the C1 level shows a high level of confidence in professional English use. This may be taken as an indicator of teachers' competences for EMI but definitely suggests a good foundation upon which EMI-focused training could be built. In brief, these findings indicate that although teachers do not accurately self-identify as EMI ones or report teaching in English in formal terms, they do show positive attitudes and competences that are very much in line with EMI practices. This is especially relevant for the internationalisation where Croatian higher education institutions are invited to extend EMI provision. As it stands, the results of this study provide a useful starting point for ensuing policy and curriculum adjustments that include not only ESP integration but also individualized EMI training for university teachers.

6. CONCLUSION

The findings of this study highlight teachers' positive attitudes towards a more significant role of ESP and, to a lesser but still meaningful extent, EMI in Croatian higher education, particularly in facilitating internationalisation and preparing students for the global job market. These positive attitudes of university teachers towards ESP and EMI reflect an increasing awareness of the necessity of integrating targeted language instruction into content-specific curricula.

The results further emphasise the need to develop structured language policies that support the integration of both ESP and EMI into university curricula, providing important information for institutional policymakers. This includes expanding ESP course offerings, promoting faculty training in English instruction, and incentivising participation in international mobility programmes such as Erasmus, which have been shown to enhance teachers' confidence in their language skills and global awareness.

This study also underscores the importance of tailoring course materials to meet students' professional and academic needs. The participants' recognition that two years of ESP instruction is insufficient suggests the need for extended and more specialised coursework aligned with sports industry requirements. Additionally, the results advocate for a balanced approach to language teaching that incorporates not only technical vocabulary but also communication skills essential for professional success. By integrating ESP principles into their teaching strategies and using bilingual or English-language materials, teachers can better equip students with the language skills necessary for academic and professional advancement.

The study has some limitations. First, it was conducted on a relatively small and homogeneous sample, confined to one field of study (sports science), which limits the generalisability of the findings to other faculties and disciplines. Second, its focus on sports science means the results may not be directly applicable to other academic fields such as medicine, law, or engineering, where ESP and EMI may

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function differently. Third, the study relies on teachers' self-assessment of their English proficiency and attitudes towards ESP and EMI, which may introduce bias, as participants might overestimate or underestimate their language abilities and perspectives. Finally, the study does not account for other factors that may shape teachers' attitudes, such as institutional policies, workload pressure, or previous experience with EMI and ESP beyond Erasmus participation.

In conclusion, by addressing these implications and limitations and by applying a more systematic and policy-driven approach to ESP and EMI in higher education, universities can strengthen their international competitiveness, enhance language education policies, and better prepare students for the demands of a globalised workforce.

References

Agüero, M. F. (2017). Erasmus mobility and the education of interculturally competent European teachers. *Journal of Supranational Policies of Education*, 142–158. https://doi.org/10.15366/jospoe2017.m1

Aizawa, I., Rose, H., Thompson, G., & Curle, S. (2023). Beyond the threshold: Exploring English language proficiency, linguistic challenges, and academic language skills of Japanese students in an English medium instruction programme. *Language Teaching Research*, *27*(4), 837–861. https://doi.org/10.1177/1362168820965510

Akıncıoğlu, M. (2023). Rethinking of EMI in higher education: A critical view on its scope, definition and quality. *Language, Culture and Curriculum*, *37*(2), 139–154. https://doi.org/10.1080/07908318.2023.2251519

Arnó-Macià, E., & Aguilar, M. (2018). ESP, EMI and interculturality: How internationalised are university curricula in Catalonia? *ESP Today*, *6*(2), 184–207. https://doi.org/10.18485/esptoday.2018.6.2.3

Arnó-Macià, E., Aguilar-Pérez, M., & Tatzl, D. (2020). Engineering students' perceptions of the role of ESP courses in internationalized universities. *English for Specific Purposes*, *58*, 58–74. https://doi.org/10.1016/j.esp.2019.12.001

Barrantes Montero, L. G. (2009). A brief view of the ESP approach. *Letras*, *46*, 125–143.

Beaumont, B. (2020). Identifying in-service support for lecturers working in English medium instruction contexts. In M. Carrió-Pastor (Ed.), *Internationalising learning in higher education* (83–110). Palgrave Macmillan.

Božić Lenard, D., & Lenard, I. (2023). Internationalization in higher education: An analysis of Croatian universities. *IJECA (International Journal of Education and Curriculum Application)*, *6*(3), 297–314.

Cerezo Herrero, E., Schmidhofer, A., & Koletnik, M. (2021). An LSP framework for translation and interpreting pedagogy. *Revista de Lenguas Para Fines Específicos*, *27*(2), 140–156. http://dx.doi.org/10.20420/rlfe.2021.441

Cigan, V., & Kordić, Lj. (2013). The role of ESP courses in general English proficiency. *Linguistica*, *53*(2), 153–172. https://doi.org/10.4312/linguistica.53.2.153-172

Cosgun, G., & Hasirci, B. (2017). The impact of English medium instruction (EMI) on students' language abilities. *International Journal of Curriculum and Instruction*, *9*(2), 11–20.

Council of Europe. (2020). *Common European framework of reference for languages: Learning, teaching, assessment: Companion volume*. Council of Europe Publishing. http://www.coe.int/lang-cefr

Coxhead, A. (2018). *Vocabulary and English for specific purposes research: Quantitative and qualitative perspectives*. Routledge.

Čakarun, K., & Drljača Margić, B. (2025). EMI versus non-EMI: Students' motivation, expectations and language progress. In B. Moncada-Comas & D. Tatzl (Eds.), *Developing language competence through English for specific purposes in English-medium university settings* (52–68). Multilingual Matters. https://doi.org/10.21832/9781800416871-006

Dafouz, E., & Gray, J. (2022). Rethinking the roles of ELT in English-medium education in multilingual university settings: An introduction. *ELT Journal*, *76*(2), 163–171. https://doi.org/10.1093/elt/ccab096

Dafouz, E., & Smit, U. (2020). *Road-mapping English medium education in the internationalised university*. Palgrave Macmillan.

Dearden, J. (2014). *English as a medium of instruction: A growing global phenomenon*. British Council.

Đorđević, J. (2020). Improved understanding of meanings of modal verbs in legal English and increased motivation through computer assisted language learning. *Ibérica*, *39*, 295–317. https://doi.org/10.17398/2340-2784.39.295

Drljača Margić, B., & Vodopija-Krstanović, I. (2015). University teachers' attitudes towards English-medium instruction: Insights from Rijeka University. *1st Conference of the Center for Language Research* [Book of abstracts] (7–7), Rijeka, 22–23 May 2015, Filozofski fakultet Sveučilišta u Rijeci.

Drljača Margić, B., & Vodopija-Krstanovic, I. (2017). *Uncovering English-medium instruction: Glocal issues in higher education*. Peter Lang.

Drljača Margić, B., & Vodopija-Krstanović, I. (2018). Language development for English-medium instruction: Teachers' perceptions, reflections and learning. *Journal of English for Academic Purposes*, *35*, 31–41. https://doi.org/10.1016/j.jeap.2018.06.005

Drljača Margić, B., & Žeželić, T. (2015). The implementation of English-medium instruction in Croatian higher education: Attitudes, expectations and concerns. In R. Plo Alastrué & C. Pérez-Llantada (Eds), *English as a Scientific and Research Language* (311–332). De Gruyter Mouton. https://doi.org/10.1515/9781614516378-016

Elkasović, S., & Jelčić Čolakovac, J. (2023). The teaching of ESP lexis revisited: The effect of authentic text adaptation on vocabulary retention. *ESP Today*, *11*(1), 75–95. https://doi.org/10.18485/esptoday.2023.11.1.4

Engel, C. (2010). The impact of Erasmus mobility on the professional career: Empirical results of international studies on temporary student and teaching staff mobility. *Belgeo*, *4*, 351-363. https://doi.org/10.4000/belgeo.6399

European Commission. (2023). *Erasmus+ Croatia in 2022: Statistics on mobility, cooperation and other data*. https://erasmus-plus.ec.europa.eu/sites/default/files/2023-11/Erasmus%2BCroatia-in-2022.pdf

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European Education and Culture Executive Agency (Eurydice). (2020). *The European higher education area in 2020: Bologna process implementation report*. Publications Office of the European Union. https://data.europa.eu/doi/10.2797/756192

Fercec, I., & Šoštarić, B. (2006). Internet i nastava engleskoga jezika na tehničkim fakultetima [Internet and English language teaching at technical faculties]. *Život i škola: Časopis za teoriju i praksu odgoja i obrazovanja*, *LII*(15-16), 115–122.

Gajšt, N. (2017). Students' attitudes towards the use of Slovene as L1 in teaching and learning of business English at tertiary level. *ELOPE: English Language Overseas Perspectives and Enquiries*, *14*(1), 95–112. https://doi.org/10.4312/elope.14.1.95-112

García-Sánchez, S., & Luján-García, C. (2020). Lifelong learning and ESP vocabulary: Reflections in telecommunications and ICT. *ELOPE: English Language Overseas Perspectives and Enquiries*, *17*(2), 195–218. https://doi.org/10.4312/elope.17.2.195-218

Giampieri, P. (2023). Is machine translation reliable in the legal field? A corpus-based critical comparative analysis for teaching ESP at tertiary level. *ESP Today*, *11*(1), 119–137. https://doi.org/10.18485/esptoday.2023.11.1.6

Guest, M. (2021). The clinical case presentation as a narrative: Form and practice. *ESP Today*, *9*(1), 107–128. https://www.esptodayjournal.org/pdf/january_2021/6_Michael_Guest.pdf

Hyland, K. (2022). English for specific purposes: What is it and where is it taking us? *ESP Today*, *10*(2), 202–220. https://doi.org/10.18485/esptoday.2022.10.2.1

Hyland, K., & Jiang, F. K. (2021). Delivering relevance: The emergence of ESP as a discipline. *English for Specific Purposes*, *64*, 13–25. https://doi.org/10.1016/j.esp.2021.06.002

Jelovčić, I. (2010). English for specific purposes: Student attitude analysis. *Metodika*, *20*(1), 124–136.

Kabalin Borenić, V. (2011). Attitudes towards English and FL motivation among Croatian university business students: Results of a pilot study. In M. Lehmann, R. Lugossy, & J. Horváth (Eds.), *UPRT 2010: Empirical studies in English applied linguistics* (131–154). Lingua Franca Csoport.

Kaivanpanah, S., Alavi, S. M., Bruce, I., & Yahya Hejazi, S. (2021). Iranian EAP practitioners' competences, practices, and professional development. *ESP Today*, *9*(2), 272–296. https://doi.org/10.18485/esptoday.2021.9.2.5

Kirkgöz, Y. (2009). Students' and lecturers' perceptions of the effectiveness of foreign language instruction in an English-medium university in Turkey. *Teaching in Higher Education*, *14*(1), 81–93. https://doi.org/10.1080/13562510802602640

Komaromi, B., & Jerković, J. (2021). Variation in the translation patterns of English 'noun + noun' compounds in ESP: The case of engineering students. *ELOPE: English Language Overseas Perspectives and Enquiries*, *18*(2), 167–184. https://doi.org/10.4312/elope.18.2.167-184

Krstinić, M., & Pauković, M. (2020). Konkurentnost njemačkog jezika pri izboru stranog jezika struke [The competitiveness of the German language in the selection of a foreign language for specific purposes]. *Polytechnic and Design*, *8*(3), 163–169.

Kuna, D. (2020). Teaching English for specific academic purposes in a multidisciplinary setting: Challenges and opportunities. In V. Cigan, A. M. Krakić, & D. Omrčen (Eds.), *Od teorije do prakse u jeziku struke* [From theory to practice in language for specific purposes] (128–143). Udruga nastavnika jezika struke na visokoškolskim ustanovama.

Lasagabaster, D. (2022). *English-medium instruction in higher education*. Cambridge University Press.

Macaro, E. (2018). *English medium instruction*. Oxford University Press.

Martinović, A., & Poljaković, I. (2010). Attitudes toward ESP among university students. *Fluminensia*, *22*(2), 145–161.

Moncada-Comas, B. (2022). What students have to say about EMI: Exploring university students' perspectives on changing the learning/teaching language to English. *ESP Today*, *10*(2), 263–285. https://doi.org/10.18485/esptoday.2022.10.2.4

Paltridge, B., & Starfield, S. (2013). Introduction. In B. Paltridge & S. Starfield (Eds.), *The handbook of English for specific purposes* (1–4). Wiley-Blackwell.

Pecorari, D., & Malmström, H. (2018). At the crossroads of TESOL and English medium instruction. *TESOL Quarterly*, *52*(3), 497–515. https://doi.org/10.1002/tesq.470

Penjak, A., & Delaš Kalinski, S. (2023). Metrijske karakteristike upitnika za ispitivanje stavova profesora o važnosti učenja engleskog jezika struke [Metric characteristics of a questionnaire for examining teachers' attitudes towards the importance of learning English for specific purposes]. In G. Leko (Ed.), *31. Međunarodna ljetna škola kineziologa* (225–231). Hrvatski kineziološki savez.

Rujevčan, D., & Dumančić, D. (2020). Do you have a soft spot for English, or is it just not your thing? A study of Croatian (university) students' attitudes towards English as a foreign language. In I. Zovko Dinković & J. Mihaljević Djigunović (Eds.), *English studies from archives to prospects: Volume 2: Linguistics and applied linguistics* (270–286). Cambridge Scholars Publishing.

Shin, S. J. (2008). Preparing non-native English-speaking ESL teachers. *Teacher Development*, *12*(1), 57–65. https://doi.org/10.1080/13664530701827749

Shooshtari, Z. G., Jalilifar, A., & Goudarzi, E. (2023). Teaching for transfer in ESAP writing through collaborative syllabus and multimodal input: The case of Iranian engineering graduates. *ESP Today*, *11*(1), 31–52. https://doi.org/10.18485/esptoday.2023.11.1.2

Skelton, J., & Richards, C. (2021). Communication for medicine: State-of-the-art. *ESP Today*, *9*(1), 9–29. https://dx.doi.org/10.18485/esptoday.2021.9.1.1

Slesarenko, I., Page, M., Francuzskaya, E., & Golubeva, V. (2015). Teaching special disciplines through the medium of English course for professional competences development of university teachers. In L. Gómez Chova, A. López Martínez, & I. Candel Torres (Eds), *EDULEARN15 Conference Proceedings* (3624–3632). IATED.

Smit, U. (2023). English-medium instruction (EMI). *ELT Journal*, *77*(4), 499–503. https://doi.org/10.1093/elt/ccad018

Study in Croatia. (n.d.). *Study programmes in English*. https://www.studyincroatia.hr/study-in-croatia/study-programmes-in-english/

TIBCO Software Inc. (2020). *TIBCO Statistica 14.0* [Computer software]. https://docs.tibco.com/products/tibco-statistica-14-0-0

Vázquez-Amador, M., & Lario-de-Oñate, M. C. (2022). The role of women in business English textbooks (1970s-2010s). *ESP Today*, *10*(1), 145–168. https://doi.org/10.18485/esptoday.2022.10.1.7

Vidal, K., & Jarvis, S. (2020). Effects of English-medium instruction on Spanish students' proficiency and lexical diversity in English. *Language Teaching Research*, *24*(5), 568–587. https://doi.org/10.1177/1362168818817945

Vilke, M. (2007). English in Croatia: A glimpse into past, present, and future. *Metodika*, *8*(14), 17–24.

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Violić-Koprivec, A., & Dubčić, J. (2010). Učenje stranih jezika na Sveučilištu u Dubrovniku [Foreign language learning at the University of Dubrovnik]. *MediAnali*, *4*(8), 175–198.

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